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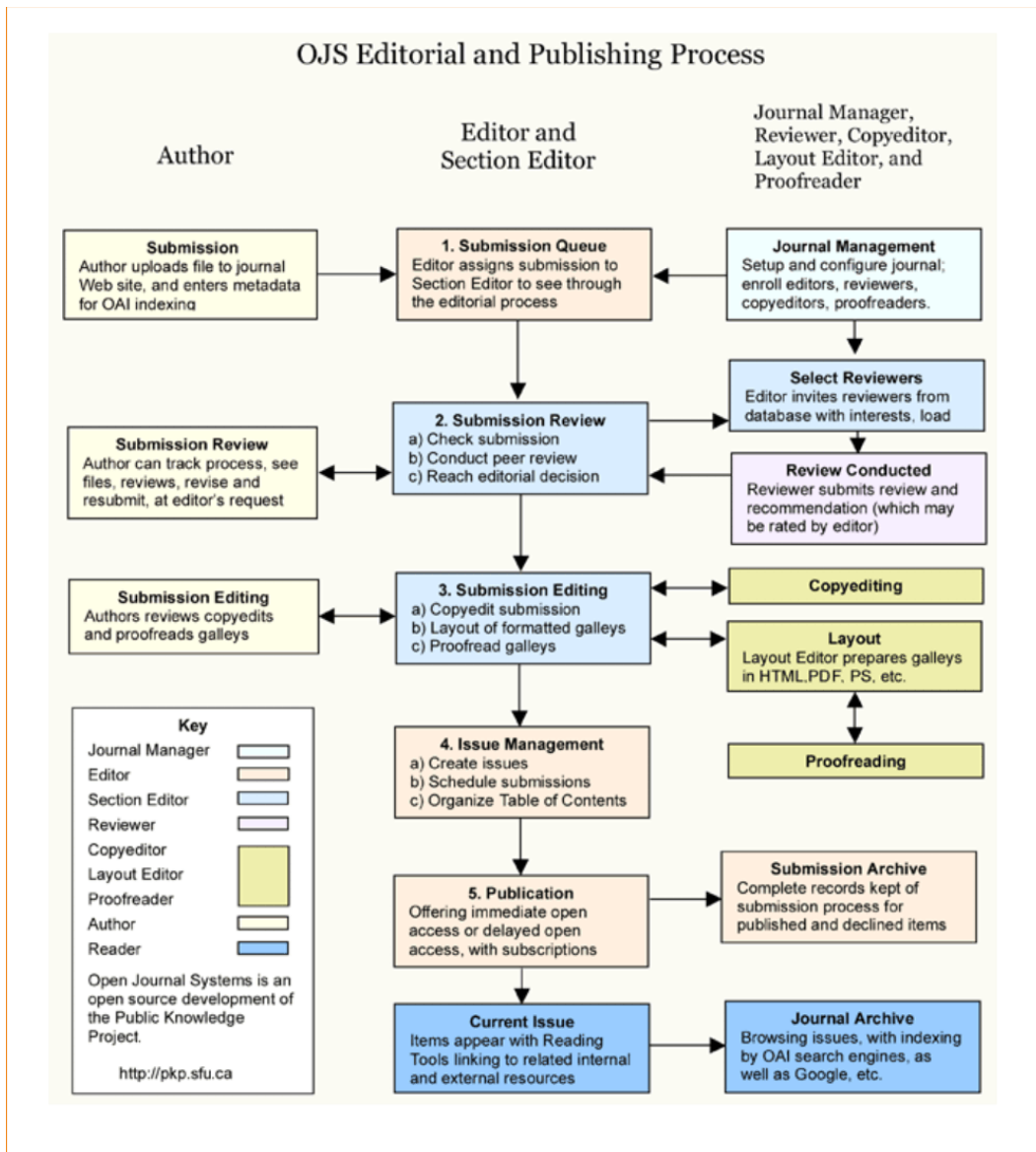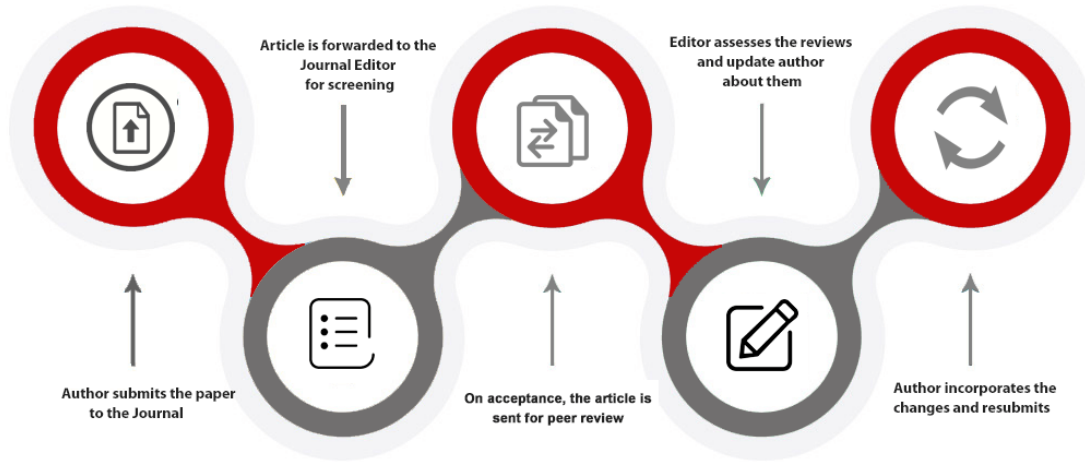## Principal Contact

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Table of Content

Linking Productivity and Competitive Advantage: The Mediation of Quality Results

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ABSTRACT

Purpose: Most studies have shown that there is a significant relationship between productivity and competitive advantage, but none have attempted to include a contingency variable to provide more insight into the nature of this relationship. To fill this gap, this study was conducted to empirically verify this relationship by including 'quality results' as a contingency variable.

Design/methodology/approach: Quantitative research approach was employed and primary data was collected from TAZARA management employees. Model fit, reliability and validity were tested using regression analysis, factor analysis and principal component analysis using Jamovi software.

Findings: The results show that there is a positive and significant relationship between productivity and competitive advantage, and between quality results and competitive advantage. The results also show that quality results partially mediate the relationship between productivity and competitive advantage.

Practical implications: The study provides insights on the nature of the relationship between productivity and competitive advantage. The study proves that quality results is critical to improving and sustaining productivity to promote competitiveness in an organisation. As organisations relentlessly seek to maintain and gain competitiveness through productivity, managers and employees need to understand how quality results can be integrated into all operations.

Paper type: Research paper

Keyword: *Productivity, Quality Results, Competitive Advantage, Mediation*

I. INTRODUCTION

In today's 21st century, each and every organisation is making every effort to survive in this competitive market environment (Yadav, 2022), as organisations are aware of the fact that providing quality products and services is the key to achieving higher levels of customer satisfaction (Yangailo,2022b). The 21st century is the century that is uniquely focused on quality, unlike the 20th century which was focused on productivity (Juran, 1993). Meeting requirements is called quality. As quality improves, so does productivity. This is because waste and rework are reduced and resources are used more efficiently. When productivity is improved, an organisation is able to reduce the price and become competitive on both quality and price. Customers are also satisfied because they get value for money. The quality results include increased customer satisfaction, reduced costs, increased profitability and increased customer loyalty and retention.

A. Purpose of the study

Some previous studies that have examined the nature of the relationship between the concept of productivity and competitive advantage have presented that the two concepts are significantly related to each other, with other studies concluding that productivity is one of the important elements in determining the competitiveness of firms (Dresch et al., 2018).

On the other hand, very few studies have empirically tested the nature of this relationship, and none have attempted to include a contingency variable to provide more insight into the nature of this relationship. To fill this gap, this study was conducted to empirically test this relationship by including 'quality results' as a contingency variable. This study was conducted in the context of the railway sector, a sector that has received little research attention (Yangailo, 2022a; Yangailo et al., 2023).

B. Research Objectives
In order to address the gap identified in the literature, this study developed the following objectives:
1. To relate productivity with competitive advantage
2. To determine whether quality results mediate the relationship between productivity and Competitive advantage.

C. Literature Review
1. Competitive Advantage
Competitive advantage is defined as the ability of an organisation to conduct its activities in a way that is different from the other competitors (Kotler, 2000). Competitive advantage allows a firm to consistently perform better than its rivals and generate significant profits from the good share of its market (Yangailo, 2023).

2. Productivity
Productivity is referred to as a measure of efficiency in the production of goods and services. It is also expressed as success in terms of efficiency, performance and effectiveness. Productivity is the relationship between the amount of output produced and the amount of input required to produce it (Yangailo 2022b). "Productivity is a multidimensional term whose meaning can vary depending on the context in which it is used" (Prasad et al., 2015).

3. Quality Results
This element ensures that production measures and production costs are emphasised together with the evaluation of employee success (Ang et al., 2000). Quality results include reduced costs, increased customer satisfaction, increased profitability and increased customer retention and loyalty. Raynor (1992) predicted that the 21st century would focus on quality and that those companies that failed to apply quality would fail to retain customers (p.3).

4. Productivity and Competitive advantage
Productivity is the only relevant measure of competitiveness (Schwab & Sala-i-Martín, 2016). Therefore, increasing productivity implies improving competitiveness, though Buckley et al. (1988) contend that that productivity is just one of the elements of competitiveness.

Dresch et al. (2018) attempted to comprehend the concept of competitiveness at firm level and its association with productivity through a system thinking of literature. The results affirm the relevance of productivity in determining competitiveness of the firm.

Carayannis and Grigoroudis (2014) examined the linkage among productivity, innovation, and competitiveness. The presents that an inherently relationship among the concepts of productivity, innovation, and competitiveness**.**

It is evident from some previous studies that there is a significant relationship between productivity and competitive advantage, thus:
Hypothesis 1: Productivity has a significant impact on competitive advantage.

5. Quality Results and Productivity
Nanda et al. (2022) conducted a study to understand the co-associations of variables and how product quality improves productivity of DRI in rotary kiln. The results showed that quality improves productivity.

Yangailo (2022b) conducted a study to determine the moderation effect of quality results on the relationship between important innovations and productivity. The study presents that quality results moderates the relationship between important innovations and productivity.

Lee et al. (2007) examined the relationship between quality and productivity in the manufacturing industry. The results of the study supported the belief that quality and productivity are indeed related and lead to increased profits.

Based on the recent previous empirical studies, it is evident that quality results positively relate with productivity, thus:
Hypothesis 2: Quality results has a positive significant relationship with productivity.

6. Quality Results and Competitive Advantage

Yangailo (2023) investigated the influence that transformational leadership has on competitive advantage through quality results and important innovations. The study presents that transformational leadership style, important innovations and quality-results have positive significant effects on competitive advantage. The results also present that quality-results partially mediate the association between transformational-leadership and competitive advantage.

Chaniago and Mudjiardjo (2021) examined the impact of logistics service quality and service differentiation on competitive advantage in the freight forwarding companies in Jakarta. The study found a significant influence of quality on competitiveness.

Kusumadewi and Karyono (2019) examined the influence of innovation and quality on competitive advantage in retailing. The study presents that innovation and quality have a positive significant impact on competitive advantage.

Based on the recent previous empirical studies, it is evident that quality results has a positive significant effect on competitive advantage, thus:

Hypothesis 3: Quality results has a positive significant impact on competitive advantage.

C. Conceptual Framework

The following model in Figure 1 was developed based on the relationship between the variables used in this study and the literature review.
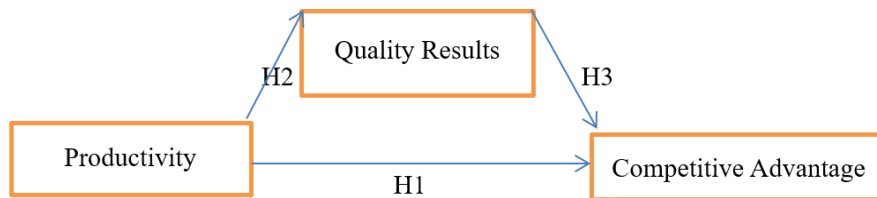
Source: Author (2023)

Figure 1. Hypothesised Model

D. Hypotheses

The following hypotheses are based on the aim of this study, the findings of the literature review and the hypothesised model.
1. Hypothesis 1: Productivity has a significant impact on competitive advantage.
2. Hypothesis 2: Quality results has a positive significant relationship with productivity.
3. Quality results has a positive significant impact on competitive advantage.
4. Hypothesis 4: Quality results has a mediating effect on the relationship between productivity and competitive advantage.

II. METHODS

This study was carried out on an organisation called the Tanzania Zambia Railway Authority (TAZARA). TAZARA is owned by two state (Zambia and Tanzania) on the (50/50) basis and has been operating since it was constructed from 1975. The questionnaire was distributed to 200 respondents who are management staff against a target population of 240. One hundred and fifty-eight (158) respondents completed the questionnaire, representing a response rate of 79%. The quantitative method was used to analyse the data collected using Jamovi software. The sample size of 158 against the target population of 240 met the required threshold recommended by Krejcie and Morgan (1970) to conduct scientific research (see Table 1).

Table 1. Sample Size determination

N	S	N	S	N	S
10	10	220	140	1200	291

15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375

Linking Productivity and Competitive Advantage: The Mediation of Quality Results
Tryson Yangalio

160	*113*	*800*	*260*	*20000*	*377*
170	*118*	*850*	*265*	*30000*	*379*
180	*123*	*900*	*269*	*40000*	*380*
190	*127*	*950*	*274*	*50000*	*381*
200	*132*	*1000*	*278*	*75000*	*382*
210	*136*	*1100*	*285*	*1000000*	*384*

Note.—*N* is for population size.
S is for sample size.
Krejcie and Morgan (1970)

A. Measures
Five-point Likert scales were used to measure the constructs, with strongly agree being (5) and strongly disagree being (1).

III. RESULTS AND DISCUSSION

The analysis was based on the quantitative research method using Jamovi software. The results of the study are presented in the form of descriptive statistics, tables, figures and hypothesis tests.

A. The Response Rate
Two hundred (200) questionnaires were distributed to participants out of a target population of 240. Of the 200 respondents, 158 respondents completed the questionnaire, giving a response rate of 79%.

B. The Demographic Characteristics
The demographic profile of the 158 respondents who participated in the study by gender and experience is presented in Table 2.

Table 2. Demographic Profile

Description	Frequency	Percentage (%)
Gender		
Female	*26*	*16.5*
Male	*132*	*83.5*
Total	*158*	*100*
Experience in Years		
< 10	*46*	*29*
10-20	*58*	*37*

Linking Productivity and Competitive Advantage: The Mediation of Quality Results
Tryson Yangalio

> 20	*54*	*34*
Total	*158*	*100*

Source:Author (2023)

Of the 158 respondents, 132 (83.5%) were male and 26 (16.5%) were female. In terms of experience with the company, 46(29%) of the 158 respondents had less than ten (10) years of work experience, 58(37%) had between 10 and 20 years of work experience, and 54(34%) had more than 20 years of work experience.

C. Descriptive Statistics
Table 3 shows the mean, standard deviation, skewness and kurtosis for the constructs used in this study.

Table 3. Mean, Standard Deviation, Skewness, & Kurtosis of Constructs (N = 158)

	CA	P	QR
N	*158*	*158*	*158*
Mean	*2.89*	*2.90*	*3.17*
Median	*3.00*	*2.89*	*3.20*
Standard deviation	*0.757*	*0.731*	*0.718*
Minimum	*1.00*	*1.00*	*1.00*
Maximum	*5.00*	*4.89*	*5.00*
Skewness	*-0.0399*	*0.0159*	*-0.324*
Std. error skewness	*0.193*	*0.193*	*0.193*
Kurtosis	*-0.0177*	*0.273*	*0.525*
Std. error kurtosis	*0.384*	*0.384*	*0.384*

Source: Jamovi computation

The mean values of the constructs show that participants responded positively. Skewness and kurtosis were within the threshold range of -2 to +2, indicating that there was no serious deviation from normality.

D. Reliability and Validity
1. Assumptions of Study Variables
The data collected from this study was subjected to validity and reliability testing to ensure that the data collected could be analysed using Factor Analysis (FA). In order to use Principal Component Analysis, the data should fulfil four (4) assumptions in order to produce valid results (Landau & Everitt, 2003). These assumptions

Linking Productivity and Competitive Advantage: The Mediation of Quality Results
Tryson Yangalio

are linear relationship between variables, multiple variables assessed at either ordinal or continuous levels, no significant outliers, and sampling adequacy. The sample data collected met all four assumptions after examination. In order to perform principal component analysis (PCA), the data must have a minimum of 150 cases (Fan et al., 2008). Therefore, the 158 cases met the minimum data requirement to conduct PCA. A reliability test was carried out to provide reliable measures to determine the good consistency and appropriateness of the measures used. The Cronbach alpha for all three construct scales was calculated by conducting a reliability analysis with the minimum recommended by Hair et al. (2006) and Nunnally (1978) of 0.7.

2. Reliability and Validity Test Results

The factorability of all 19 items in the instrument was assessed and it was found that they all correlated at least 0.3 with another item that showed adequate factorability. The KMO, which is the Kaiser-Meyer-Olkin measure of sampling adequacy, was 0.879 above the value of 0.6. Bartlett's sphericity test was significant ($\chi 2$ (171) = 1198, p < .001). PCA was considered appropriate for the 19 items shown in Table 4.

Table 4. Barlett and Kaiser-Meyer-Olkin's Test Results

Barlett and Kaiser-Meyer-Olkin's Test Results		
KMO Measure of Sampling Adequacy.		.879
Bartlett's Test of Sphericity	Approx. Chi-Square	1198
	Degrees of freedom	171
	Significance	.000

Source: Jamovi computation

The results of this analysis show that the Cronbach's alpha of the instrument was well above the required minimum threshold of 0.7 (Nunnally, 1978; Hair et al., 2006). The alpha coefficient of the instrument ranged between .765 and .855. The alpha coefficient for the productivity scales was .855, the alpha coefficient for the quality results scales was .765 and the alpha coefficient for the competitive advantage scales was .786. The Cronbach alpha coefficients for all constructs met the minimum acceptable threshold of 0.7 as shown in Table 5.

Table 5. Test Results of the Cronbach Alpha

Items	Cronbach's Alpha	McDonald's Mega	Number of Items	Comment
Overall	.904	.905	19	Accepted
Productivity	.855	.857	9	Accepted
Quality Results	.765	.773	5	Accepted
Competitive Advantage	.786	.787	5	Accepted

Source: Jamovi computation

3. The Linearity

There is a linear relationship between the independent and dependent variables. This assumption was verified by calculating the correlation coefficients, as shown in Table 6.

Linking Productivity and Competitive Advantage: The Mediation of Quality Results
Tryson Yangalio

Table 6. The Construct Correlation Matrix

		QR	P	CA
QR	Pearson's r	—		
	Spearman's rho	—		
	N	—		
P	Pearson's r	0.625 ***	—	
	Spearman's rho	0.592 ***	—	
	N	158	—	
CA	Pearson's r	0.530 ***	0.593 ***	—
	Spearman's rho	0.441 ***	0.531 ***	—
	N	158	158	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

QR = Quality Results
P = Productivity
CA= Competitive Advantage
Source: Jamovi Computation

The results show significant positive correlations between quality results, productivity and competitive advantage. Quality results and CA show a positive significant correlation coefficient of .530. Quality results and productivity have a significant positive correlation coefficient of .625. Productivity and CA have a positive significant correlation coefficient of .593. The correlations show that there were no collinearity problems as they were all below the cut-off of 0.85. The multicollinearity problem doesn't occur (Hair et al., 2010).

E. Model Fit
Regression model testing was performed separately before estimating the proposed model.

1. Overall Regression Model Test
The significance of the regression model was tested with the following hypothesis.
H0 : $\beta1=\beta2=.... Bi = 0$
Ha : at least one of the regression coefficients is $\neq 0$.

Table 7. Summary of the Regression Model Fit

Model		R	R²	Adjusted R²	F	P
						Overall Model Test
1	QR predicting P	0.625	0.391	0.387	100	< .001
2	QR predicting CA	0.530	0.281	0.276	60.9	< .001
3	P predicting CA	0.593	0.352	0.348	84.7	< .001

CA = Competitive Advantage
QR=Quality Results
P= Productivity
Source: Jamovi computation

The regression analysis carried out showed the existence of a strong significant relationship between the constructs. The first model in Table 7, which shows the effect of QR on P, shows a good fit and significant values of R(0.625), R2(0.391) and an F-value of 100. The model suggested that QR explained 39% of the variation in P. The second model, showing the effect of QR on CA, showed a good fit and a significant value of R(0.530), R2(0.281) and a significant F-value of 60.9. The model suggested that QR accounted for 28% of the variation in CA. The last model showing the relationship between P and CA showed a reasonable fit with R(0.593), R2(0.352) and a significant F-value of 84.7. The model suggested that P explained 35% of the variation in CA.

F. Hypothesis Testing

The study tested four hypotheses regarding a direct association and an indirect effect. Tables 8 and 9 present the results of the hypotheses tested:

Table 8. The Model Path and Mediation Estimates

The Mediation Estimates

Effect	Label	Estimate	SE	Z	p	% Mediation
Indirect	a × b	0.169	0.0541	3.13	0.002	27.5
Direct	C	0.445	0.0822	5.41	< .001	72.5
Total	c + a × b	0.614	0.0664	9.26	< .001	100.0

Path Estimates

		Label	Estimate	SE	Z	P
P → QR		a	0.614	0.0610	10.07	< .001

Table 8. The Model Path and Mediation Estimates

The Mediation Estimates

Effect			Label		Estimate	SE	Z	p	% Mediation
QR	→	CA	b		0.275	0.0837	3.29	0.001	
P	→	CA	c		0.445	0.0822	5.41	< .001	

QR=Quality Results
CA=Competitive Advantage
P= Productivity
Source: Jamovi computation

Table 9. Summary of Hypothesis

No	Hypothesis	Results
1.	*Hypothesis 1: Productivity has a significant impact on competitive advantage.*	*Supported*
2.	*Hypothesis 2: Quality results has a positive significant relationship with productivity.*	*Supported*
3.	*Quality results has a positive significant impact on competitive advantage.*	*Supported*
4.	*Hypothesis 4: Quality results has a mediating effect on the relationship between productivity and competitive advantage.*	*Supported*

Source: Author (2023)

The model path coefficients and significance results are presented in Table 8. All four relationships hypothesised in the study are supported.

Hypothesis 1, which concerns the effect of productivity on CA, shows that it is significant (γ = 0.614, p<0.001), so H1 is supported. When the mediation of quality results takes place, the relationship (direct effect) remains statistically significant at (γ = 0.445, p< .001). This implies that quality results partially mediate the relationship between productivity and competitive advantage. Hypothesis 4 is therefore supported.

Quality results have a positive and significant relationship with productivity (γ = 0.614, p< .001). Therefore, H2 is supported. Quality results has a positive significant effect on CA (γ = 0.275, p< .001). Therefore, H3 is supported.

1. The Analysis of mediating effect

The indirect effect of productivity on CA through quality results is positive and statistically significant (p< 0.05, γ = 0.169; ratio effect = 0.275). This indicates a partial mediation effect of quality results, thus supporting Hypothesis 4.

G. Discussion

The results of the study have provided strong support for the theoretical model of the links between productivity, quality results and competitive advantage.

The results show that the majority of TAZARA managers are male. The results also show that the majority of management employees have 10 to 20 years of work experience, followed by employees with more than 20 years of work experience. This indicates that TAZARA's management is composed of employees with extensive work experience in the railway sector.

The first objective of the study was to determine whether productivity has a significant positive impact on competitive advantage. This study confirms and also supports the previous studies that presented that productivity has a positive significant impact on CA (see Schwab & Sala-i-Martín, 2016; Buckley et al., 1988; Dresch et al., 2018; Carayannis & Grigoroudis, 2014).

The results of the study have also presented that quality results has a positive significant relationship with productivity. This is consistent with the previous research studies that have presented that quality results has a positive significant relationship with productivity (see Nanda et al., 2022; Yangailo, 2022b; Lee et al., 2007).

The study results also showed that quality results have a positive and significant effect on CA. This confirms and is consistent with previous studies that have presented similar results (see Yangailo, 2023; Chaniago & Mudjiardjo, 2021; Kusumadewi & Karyono, 2019).

The second and final objective of this study was to determine whether quality results has a mediating effect on the relationship between productivity and CA. The results showed that quality results partially mediate the relationship between productivity and CA. This is the first study to empirically test the mediating effect of quality results on the relationship between productivity and competitive advantage. Further research is needed to verify the validity of these findings.

A. The Theoretical Managerial Implications

The results of this research provide some critical useful insights for both decision makers and practicing managers. The partial mediation effect of quality results on the relationship between P and CA implies the need for organisations to invest in training employees on quality scores. This would help to establish a common language of quality production in a company and also ensure behavioural change and commitment to quality improvement. Competitiveness would then be achieved and maintained.

V. CONCLUSION

This study is the first to empirically examine the relationship between productivity, quality outcomes and competitive advantage. The study shows that quality outcomes partially mediate the relationship between productivity and competitive advantage. This study provides empirical evidence on the nature of the relationship between productivity and competitive advantage and also contributes to a good understanding of the relationship.

The study has provided evidence that quality results is critical to improving and sustaining productivity to promote competitiveness in an organisation. As organisations relentlessly seek to maintain and gain competitiveness through productivity, managers and employees need to understand how quality results can be integrated into all operations.

A. Limitation and Future Research

The study was conducted in one organisation, which limits the generalisability of the findings to other sectors. A replication of this study in other sectors is strongly recommended. Future studies are also recommended to consider the inclusion of other moderating and/or mediating variables.

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Factors Influencing Entrepreneurial Intentions Amongst Sport Management Students

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ABSTRACT

Purpose: Given the size of the sports industry in relation to the global economy, more research is focusing on how to identify entrepreneurial opportunities in sports. This study aimed to investigate the factors influencing entrepreneurial intentions amongst sport management students at a South African university.

Design/methodology/approach: Structured interviews were used to gather information from 10 undergraduate sport management students for the qualitative, explanatory study. Using ATLAS.ti and thematic analyses, the collected data were examined.

Findings: The following themes emerged from the study; namely, personality traits, attitudes towards entrepreneurship, entrepreneurial self-efficacy, perceived university support, perceived structural support, and subjective norms. The results of this study indicate that sport management students have a favourable attitude towards entrepreneurship, which is influenced by their family and friends - and by their own sense of their own ability to succeed in business.

Practical implications: Universities should consider incorporating entrepreneurship into their sport management curriculum design and teaching methods to enhance students' entrepreneurial mindset and self-efficacy. This study contributes to the discussion around developing attitudes and intentions toward entrepreneurship as a livelihood option for sport management students.

Paper type: Research paper

Keyword: Entrepreneurial Intention, Sport Management, Sport Entrepreneurship

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I. INTRODUCTION

The number of students starting their own businesses has led to a gradual rise in entrepreneurial abilities (Ratten & Jones, 2018). Entrepreneurship is defined as a process where a person (legal or natural) identifies a potentially profitable opportunity and seizes it while exploring new options, or avenues linked to the person's awareness, aptitude, and experiences (Essel, Mia & Dumor, 2020). Young adults, particularly university students, make up the future labour force, making it important to research their entrepreneurial intentions, the causes of those intentions, the circumstances that produce entrepreneurial propensity, and the pressures that cause those attitudes to become behaviour (Yildiz, 2018:13).

The delivery of opportunities for sports and recreation by a mixed economy of providers from the public, not-for-profit and commercial sectors impacts the logic of entrepreneurship in sports (Nova, 2015:2918). Furthermore, in recent studies, researchers suggest entrepreneurship as a solution to sport management student careers, to help resolve the challenges they face (Ratten, 2011; Nova, 2015, Ratten & Jones, 2018; Gonzalez-Serrano *et al.,* 2018). Due to South Africa's high unemployment rate and the growth of the sports industry, it is essential to introduce strategies to promote entrepreneurship and thereby increase the employability of future graduates from the sports sector (Gonzalez-Serrano, Gonzalez-Garcia & Morena, 2019).

Developing character traits that prepare students for the job market or self-employment is the goal of entrepreneurship in sports (Gonzalez-Serrano, Morena & Hervas, 2018). Given the size of the sports industry

compared to the global economy, this necessitates ongoing attention from business owners and sport management researchers Dehghan & Peymanfar, 2021). It is also crucial that sports entrepreneurship continue to look to aspiring business owners (Ratten, 2012). Therefore, both policymakers and academics should concentrate their attention on the problem of why some people during such a learning process choose an entrepreneurial career while others do not (Turker & Serculo, 2009).

A. Purpose of the study

The study, therefore, investigates the factors influencing entrepreneurial intentions among sport management students at a South African University by answering the following questions:

1. What is the influence of internal factors such as personality traits, attitudes towards entrepreneurship, and entrepreneurial self-efficacy towards sport management students?
2. What is the level of influence of external factors such as perceived institutional support, perceived structural support, and subjective norms towards sport management students' entrepreneurial intentions?

Following this introduction, the paper will present a review of the literature, followed by the theoretical framework upon which the research question hinges, this will be followed by the research methods that were used to collect and analyse the data, will be followed by a presentation of the results, followed by a discussion of the results and how they link to the literature, and finally, we shall present a conclusion drawn from the results and areas for further research.

B. Literature Review
1. Personality Traits

Personality traits are determined by an individual's propensity to act and are stable over time, they are relevant personal characteristics to entrepreneurship (Holienka *et al*., 2018). Because intentions reflect a person's motivation to engage in a behaviour, evidence supporting the relationship between intentions and actions has been demonstrated regarding various behavioural types (Naia, Biscaia, Januario & Trigo, 2017). Therefore, there is a relationship between personality characteristics and entrepreneurial intention that separates those with entrepreneurial propensity from those who are not entrepreneurs (Khuong & Ana, 2016).

2. Attitude towards entrepreneurship

Attitudes are social rather than genetic traits, and they must be learnt in the home, at school, or at work (Su *et al*., 2021). Students' entrepreneurial intentions were statistically influenced by their attitude towards entrepreneurship (Atrafu, 2016:395; Appiah-Nimo, Ofori & Arthur, 2018). Therefore, Attitudes towards entrepreneurship have a favourable effect on intentions to start a business (Voung et al., 2020).

3. Entrepreneurial self-efficacy

Entrepreneurial self-efficacy (ESE) is the degree to which a person has confidence in his or her ability to perform the various responsibilities and tasks associated with being an entrepreneur (Hu & Ye, 2017). It is critical to comprehend this theory in the context of entrepreneurial behaviour because self-efficacy is a component of perceived behavioural control (Johnmark & Manene, 2016). Therefore, students who have higher self-efficacy levels can work harder for longer periods, keep going when things get tough and produce plans and strategies to reach more ambitious entrepreneurial goals (Khuong & Ana, 2016).

4. Perceived university support

Perceived university support (PUS) offers resources in social networks and ties can introduce students studying entrepreneurship to specific professional knowledge (Su *et al*., 2021). Gubik (2021) asserts that it is possible to create policies and university practices that can raise students' entrepreneurial intention and, consequently, entrepreneurial activity. Therefore, the educational environment for entrepreneurs includes classes, lecturers and extracurricular activities that provide students the knowledge, abilities, and attitudes they need to pursue careers in entrepreneurship (Vuong *et al*., 2020).

5. Perceived structural support

Entrepreneurial support can come from both internal and external influential forces, such as social movements and opinions from friends, family, and co-workers (Vuong *et al*., 2020). Studies by Wongnaa and Seyram (2014) and Haris *et al.* (2016) demonstrate how students' attitudes and intentions towards start-ups are influenced by the factor "financial accessibility". Students may find it difficult to raise money and attract capital for their business idea because this is a frequent problem in start-ups (Vuong *et al*., 2020). Therefore, government initiatives only impact business formations if they change attitudes, entrepreneurial skills, and subjective norms,

which could inspire young people to launch a successful business. Policymakers need to be aware of this (Swapura & Goyal, 2020).

6. Subjective norms

Subjective norms are used to measure the social pressure that influences behaviour (Voung *et al*., 2020). Parents, friends, and other significant people (mentors) who may support or disapprove of the idea of the people taking entrepreneurial action are the subject of subjective norms (Sahinidis *et al*., 2012). Starting a business is a big decision; therefore, people frequently ask for advice and support from those around them, and as a result, a person's decision to engage in entrepreneurial behaviour is influenced by the opinions of those around them (Su *et al.*, 2021). Therefore, when parents, friends, and other significant people are supportive, they tend to encourage a positive attitude towards entrepreneurship and can also boost self-efficacy (*Sahinidis et al.*, 2012).

C. Conceptual Framework of Entrepreneurial Intention

Figure 1 illustrates how the study criteria to analyse entrepreneurial intent in the following order: internal factors (personality traits, attitude towards entrepreneurship and entrepreneurial self-efficacy), and external factors (perceived university support, perceived structural support and subjective norms) (Franke & Luthje, 2004).

II. METHODS

Qualitative methods have been used to identify, for instance, potential issues with putting a proposed trial of elective single embryo transfer into practice (Hammarberg et al. 2016). For this study, the qualitative inquiry was aimed at describing the phenomena from the perspective of the informants, unearthing multiple realities and creates a comprehensive understanding of the phenomena within a specific context (Hilal and Alabri, 2013).

A. Research design

Additionally, according to Boru (2018), an explanatory research design seeks out causes and reasons as well as evidence that either supports or contradicts an explanation or prediction. This study, therefore adopted an explanatory research design to study a situation or issue to understand the relationship between the identified factors in influencing sport management students' entrepreneurial intention (Saunders *et al*., 2012).

B. Research approach

A case study approach was used in this study as it may be used when there may be a complex cause-and-effect relationship between real-life events, and their outcomes are unclear, or it may be used to assess an evaluation study (Handerson, 2016).

C. Sampling

To collect data from the 10-sport management undergraduate students a non-probability, purposive sampling strategy was used as the study only focused on seeking participants who could contribute to the subject area (Bajramovic, Emmerton & Tett, 2004). Structured interviews were conducted according to maintaining the interview's strict focus on the intended subject and for ensuring interviewee comparability (Alsaawi, 2014).

D. Data analysis

Data were analysed using thematic analysis through atlas ti version 8 software.

III. RESULTS AND DISCUSSION

A. Personality Traits

The personality traits of people who choose entrepreneurship as a career are different from those of people who choose employment in an organisation (Farrukh *et al*., 2017). Participants were asked to respond to the question "Do you think you have the skills to become an entrepreneur?" under this theme. They were also asked to list the skills they felt were relevant to the entrepreneurial journey. Seven of the participants said they possess the abilities needed to be entrepreneurs. Below are some of the inputs related to entrepreneurial skills:

PA: "Yes, I am patient, a hustler, good at networking, with strong decision-making skills."
PB: "Yes, the most traits as I am open. If you are not open people will not know what you have. Extroverts are good in business."

Additionally, the participants said they possess the necessary skills and highlighted related skills that they think are crucial for anyone who wants to start their own business. These qualities include: extroversion, or openness, creativity and self-confidence. Furthermore, below are some of the inputs from participants relating to entrepreneurial skills:

PB: "Yes, the most traits as I am open-minded. If you are not open-minded people will not know what you have. Extroverts are good in business."

PH: "Yes. I am an open-minded, have communication skills.

PD: "Yes, I do. I am creative. My expertise is in project management and event management and whenever I am in a group, I bring in creativity."

PJ: "Yes, I am optimistic, creative and able to work with people."

PI: If you believe in yourself and the business you can be an entrepreneur. It all starts with you."

The personality traits of people who choose entrepreneurship as a career are different from those of people who choose employment (Farrukh, Khan, & Soladoye, 2017). This is because entrepreneurs help businesses innovate and be creative so they can offer new products, services, and ways of thinking, giving them a competitive advantage in the global market (Al-Ali, 2022). This was discovered to be true among the participants in this study who expressed a desire to start their own business and who identified as creative, risk-takers, extroverts and social creatures who enjoy interacting with others.

In contrast, those who did not express an interest in becoming entrepreneurs said that they lacked the necessary skills. To become an entrepreneur, one must be self-driven, inventive, willing to take risks, self-reliant and proactive (Marini et al., 2020). Furthermore, this study found that as students are not trained, or taught how to become entrepreneurs, it is then hard for them to develop the necessary skills to become entrepreneurs. Because entrepreneurship education aims to improve employability and prepare students to start successful businesses, it is the development of entrepreneurial skills (Mohamed & Ali, 2021:646).

B. Attitudes Towards Entrepreneurship
An individual's self-acknowledged conviction that they intend to launch a new business venture and intentionally intend to do so in the future is known as their entrepreneurial intention (Bello *et al*., 2018). Therefore, attitude towards entrepreneurship has a greater weight on the entrepreneur in influencing their intention to entrepreneurship (Lara-Bocanegra *et al*., 2022). Participants were questioned regarding this theme to determine whether they identified as entrepreneurs and whether becoming an entrepreneur would be satisfying to them. Among sport management students' career options, entrepreneurship is not even among the top five (Hu & Ye, 2017). However, study participants showed a favourable attitude toward entrepreneurship and indicated that they would think about starting their own business. The following are some of the comments made by participants regarding their attitudes toward entrepreneurship:

PH: "Yes, being proud of hustle, achievement orientated, money independence."

PB: "Yes, because you set goals that you are working towards something. When having an achievement proving that you can withstand any challenges. Be proud of what is yours."

PC: "Yes, you have something to rely on as it is hard to get jobs, or internships, or learnerships."

PD: "Yes, right now the things I am trying to establish as I run a beauty and salon business. I ensure client satisfaction of which there I know if my client is happy then I am also satisfied. Doing what I love makes me happy."

A study conducted by Pollegrini, Rialti, Marzi and Caputo (2020) found that students enrolled in sport-related courses have positive attitude towards the entrepreneurial intention. After graduating, it is likely that the student will launch their own business if they have a favourable attitude towards entrepreneurship (Ayalew, 2021). This study found comparable results in terms of sport management students having a positive attitude towards entrepreneurship, which was also highlighted by the advantages of doing something that they love, being able to address a certain gap in the industry and having the necessary skills to allow them to be entrepreneurs.

C. Entrepreneurial Self-Efficacy

When analysing the actions of aspiring entrepreneurs, it is best to view entrepreneurial intention as a multidimensional construct (Sedlan-Konig, 2016). Participants in this theme were required to indicate what role they think self-confidence played towards them deciding on becoming entrepreneurs. Students who score highly on the entrepreneurial self-efficacy scale are confident in handling more entrepreneurship-related issues, pay more attention to information about entrepreneurship, take the initiative to learn about entrepreneurship, actively explore entrepreneurship, take the initiative to engage in entrepreneurship and develop their competence to increase entrepreneurial intention (Tesuati & Tiatri, 2021). All participants in this study indicated that self-confidence is important when one seeks to venture into entrepreneurship. Below are some inputs from the participants:

"PB: Believing in yourself gives you confidence. This will lead you to become something. If you are willing to learn you can then be an entrepreneur. As much as you believe in yourself, be willing to learn from other people. Ask other people questions, avoid pride and ask people, who know how things are done."

"PA: Without belief in yourself, you can never do or become an entrepreneur. You have to believe that you can to be."

The findings did, however, also show that there are some things that can boost confidence, which can then affect someone's decision to start their own business or not. These include having the drive, family background, role model, support from others, entrepreneurial education, capability, believing in yourself and the lack of practicality. The main factor in the identification of opportunities is entrepreneurial self-efficacy (Yasir et al., 2020). Bello, Mattana, and Lo''s (2017) study revealed that entrepreneurial self-efficacy is regarded as important for entrepreneurs because they must have faith in their ability to carry out various and frequently unexpected tasks in uncertain circumstances. The participants in this study shared a similar finding, demonstrating a favourable attitude toward entrepreneurship. The importance of entrepreneurship and its relevance must also be ingrained, and student'' attitudes and sense of self-efficacy must be positively influenced through education, for them to become more aware of and interested in starting their own businesses.

D. Perceived University Support

Universities are crucial in fostering students' entrepreneurial aspirations (Muharana & Chaudhury, 2022). In this theme, participants were required to determine how their university impacted their entrepreneurial intentions and if there are programmes that are held to influence their decision to become entrepreneurs. The results from this study highlighted various themes related to perceived university support, such as ignorance, the university does not care, the lack of entrepreneurial programmes and lack of visibility. Below are some inputs from the participants:

PA: "They play a crucial role but they need to at least make students draft reports or proposals for their business idea. This will motivate students to start a business."

PF: "Support, such as financial support and entrepreneurial lessons. Many sports students need practical work than the books. We are fed books with no skills."

PC: They do not contribute in any way. They do not care. The qualification discourages them to be become entrepreneurs. The qualification must influence students to be entrepreneurs. It must start from basic education."

PH: "No, institutions do not care. They never motivate students to take the entrepreneurial journey."

PB: "Yes, it does. I always see emails about business seminars and CV writing and workshops but the truth is that students do not pay attention. I have attended these workshops and they are helpful."

Higher education institutions now play a crucial role in society because they are seen as change agents for fostering an entrepreneurial culture (Nguyen et al., 2022). Because it fosters self-control, self-confidence, and the capacity to explore and take different paths. Education is an essential component in motivating people to become entrepreneurs (Adiguzel & Musluhittinoglu, 2021). Even though the university has various entrepreneurial initiatives, participants claimed that a lack of entrepreneurial programmes, a lack of awareness of the programmes and a lack of relevance give them the impression that the university does not care. Other participants, however, pointed out that although the university does help, students are unaware of it because of their ignorance.

Considering these findings, the study draws the conclusion that while the university may have entrepreneurship-based initiatives, they are not effectively promoted, which in turn limits students' entrepreneurial intention.

E. Perceived Structural Support

The participants in this theme were questioned regarding the type of support they thought was necessary for them to launch their own businesses. The participants in this study indicated that there is a need for them to have certain resources, industry experience, support from lecturers, and workshops. Below are some of the inputs from the participants:

PA: "Practicals we are fed more theory for two years. We need to at least have Work Integrated Learning (WIL) every two months of our study. There is more theory and less application."

"PE: "Educational support because you get all the information on how to start and examples of how entrepreneurship occurs."

PF: "They need to get in the environment and see things, hence there is a difference between the academic world and the industry."

PC: "Having more programmes that will support sport management students and to have experience."

PH: "Yes, because lecturers can have workshops and seminars to give out information about such things."

Universities may equip athletes with the knowledge and abilities necessary to secure funding, carry out a business plan, and preserve economic and financial equilibrium (Pollegrini, Riati, Marzi & Caputo, 2020). This is so that universities can alter how students think about innovation and taking risks in entrepreneurship (Sampene, Li, Khan, Agyeman & Opoku, 2022). Universities should therefore prioritise exposing students to entrepreneurship and encouraging self-innovation among students so that they can become more innovative, critical, motivated, and skilled in entrepreneurship (Al-Ali, 2022). Participants in this study believed that because universities did not expose them to enough practical work, they were unable to develop the skills necessary to succeed as entrepreneurs.

Moreover, it has been shown that the development of an entrepreneur is directly correlated with the encouragement and support of family, friends, and relatives as well as with the guidance and coaching provided by lecturers (Al-Ali, 2022). Therefore, students that acquire support from friends, family, community and the university have more chances of being entrepreneurs than those who do not.

F. Subjective Norms

Because starting a business is a crucial decision, people are likely to ask those around them for advice and support. Therefore, the opinions of those around a person have an impact on that person's decision to engage in entrepreneurial behaviour (Su, Zhu, Chen, Jin, Wang, Lin & Xu, 2021). In this theme, participants were asked to consider the roles that their community, university and family and friends play in their ability to become entrepreneurs. The participant's results are categorised through family, community and universities.

G. Family and Friends

The study found that family plays a huge role in motivating one to become an entrepreneur. This can be through family support, where one is given moral support, or resources to ensure that one's dream becomes a reality. This is associated with access to resources as families can provide the student with money to start the business. Below are some inputs relating to family support:

PA: "Friends and family play a huge role. If your family does not support you, that does not mean that you must not venture into business. You need money to start the business not moral support."

PF: "Play a significant role. The business route is challenging. They being there and supporting you, will give you motivation to start."

Furthermore, the participants also indicated that their family background does play a role in them becoming entrepreneurs. This is about having someone to look at and encourage one to continue and believe in one's goals.

Factors Influencing Entrepreneurial Intentions Amongst Sport Management Students
Bonginkosi Siyethemba Zwane, Patrick Ebewo Jr

PE: "Negative and positive as some will not even support you. The family background is a contributing factor to becoming an entrepreneur. Registering a business and collecting data about what they need to be entrepreneurs.

PJ: "They are the biggest influence, actually their approval can lead to one becoming an entrepreneur."

H. Community

According to the study's participants, the community can play various roles in helping people succeed as entrepreneurs, including providing role models who can encourage an idea and show people how to succeed in a particular setting. Below are some of the inputs relating to community support:

PB: "It takes a village to raise a child. Your surroundings pave a direction of where you may end up. The environment will have an impact on your life. If people always complain, you will end up not making it. No one is responsible for your life. We need to create a conducive environment for our children to benefit from."

PD: "Copy see, copy act - if I see that someone did something and it works, I would consider doing it."

However, the results also showed that communities have less understanding of the sports business, which then makes it hard for them to support sports entrepreneurs. Some of the inputs include:

PH: "Yes, rural places normally do not have resources and few people even take entrepreneurship as an important thing to do. Additionally, most people in rural areas can start a business to feed their families, not to make profit. Meaning the
type of place, you stay at determines if what you want to do will be successful or not."

PJ: "They must be your first place of context as they have all the influence in your business success."

I. University

According to the study's findings, universities should be a major factor in inspiring students to start their own businesses. However, it is clear from the findings that the participants believe the university is not doing much and is instead concentrating on teaching students. The participants, particularly under sport management find the curriculum not to be entrepreneurial and lacks practicality. Below are some of the inputs relating to university support:

"PC: I do not know because most students do not even understand what the course is about."

"PD: They do not contribute in any way. They do not care. The qualification discourages them to become entrepreneurs. The qualification must influence students to be entrepreneurs. It must start from basic education."

PH: They do not play any role. They do not care. They just teach you what is on the book then life goes on."

However, other participants indicated that the university, particularly under investigation does provide programme but the students are ignorant, which then limits them from becoming entrepreneurs. Below are some of the inputs relating to university support:

PE: "Positive because you get guidance from the university lecturers."

PB: "They play a huge role. They teach you. You have mentors, teachers and lecturers. They are trying everything; they give all you the resources, but we do not use them as students. Even lecturers go beyond their role to help us. It always about communication. Try to speak to someone."

This study found that family and friends, community and university approval, or support contribute to one's decision to become an entrepreneur. However, it was evident that due to limited support from universities, students' entrepreneurial intentions is then affected. The support from family and family background was found to contribute to the participant's decision to become entrepreneurs. Furthermore, the community was also found to contribute to participants' entrepreneurial intentions. However, the lack of industry background was found to impact the lack of support from family and friends and the community. Therefore, this study concludes that students that have support from their family and friends, community and university can become entrepreneurs.

V. CONCLUSION

Universities need to them consider innovative ways to build sport management students' entrepreneurial intention, to better ensure that students are well-equipped with the necessary training for them to venture into business. This does not only allow them to start businesses but also set an opportunity for those who are athletes in them facing having a sustainable career off-field. As evident, that most athletes run in a risk of not having any form of income should they get injured or stop participation.

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Factors Influencing Entrepreneurial Intentions Amongst Sport Management Students
Bonginkosi Siyethemba Zwane, Patrick Ebewo Jr

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Factors Influencing Entrepreneurial Intentions Amongst Sport Management Students
Bonginkosi Siyethemba Zwane, Patrick Ebewo Jr

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Page | 1045

Factors Influencing Entrepreneurial Intentions Amongst Sport Management Students
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The Influence of Microfinance Institutions on Nigerian Small, Micro, and Medium Enterprises

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ABSTRACT

Purpose: Poverty is a significant concern in most countries, including Nigeria, which has been dubbed the world's poverty capital. Most developing countries regard small, micro, and medium-sized companies (SMMEs) as a sure strategy to reduce poverty by lowering a country's unemployment rate. Microfinance institutions (MFIs), especially banks, were commissioned by the Central Bank of Nigeria (CBN) to cater to self-employed people and businesses. There is compelling evidence that MFIs are not doing enough and are failing to fulfill their mandate. As a result, this paper sought to investigate the impact MFIs have on SMMEs in Nigeria.

Design/methodology/approach: This descriptive study, made use of a convenience sample strategy to collect survey data from 384 SMMEs in two Nigerian states: Abuja and Nasarawa. Data was collected from 350 respondents.

Findings: The findings showed that MFIs significantly influenced SMMEs regarding technology transfer and financial services and aided SMME (small, medium, and micro enterprises) growth. MFIs in Nigeria are ineffective in offering the services of aspects of facilitator of SMEs growth, tool for social change, provider of banking services to the people and transferor of technology.

Practical implications: The CBN should make sure that MFIs, especially the banks focus more on servicing SMMEs. MFIs should do more in the areas of sensitation and tailor their products to suit their customer base.

Originality/value: There are limited studies on the Nigerian context for SMMEs and MFIs.

Paper type: Research Paper

Keywords: Entrepreneurship, Micro-finance, Nigeria, SMMEs

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I. INTRODUCTION

SMMEs in developing countries such as Nigeria foster competition, resulting in external economic benefits such as productivity and innovation (Olaore, Adejare & Udofia (2021). SMMEs are critical in Nigeria for improving the living standards of owners, employees, and the community (Saidi, Uchenna & Ayodele, 2019). They help to increase real GDP, create jobs, reduce poverty, and diversify GDP sources (Aladejebi, 2019). SMMEs indirectly foster economic growth, particularly in poverty reduction, in addition to direct economic impacts (Saidi, Sodiq & Olushola, 2016). SMMEs in Nigeria, on the other hand, face challenges such as insufficient finances, limited entrepreneurial skills, insufficient marketing, underutilized technology, and governmental inadequacies (Joseph et al., 2021). It is in this regard that governments worldwide need to develop policies that unleash the innovation potential of SMMEs and business owners. In line with this, over the years the Nigerian government has developed programs to help encourage youths to pursue entrepreneurship. The government has provided the necessary tools and conducive environment for MFIs to operate so they can assist budding entrepreneurs as well as SMMEs (Zhiri, 2017). As part of financial liberation efforts, microfinance institutions (MFIs) target lower-income individuals. The body of knowledge about the impact of MFIs on clients' standard of living is growing. Some studies have found positive linkages in relation to income and consumption; Income and consumption (Duvendack et al., (2019), wealth accumulation (Osmani et al., (2015), food access

(Stewart et al., 2010), Material flow cost accounting and higher productivity (Sahu, Padhy, Das & Gautam, 2021), village savings and loan association (Nnama-Okechukwu et al., 2019), macro impact of microfinance (Raihan, Osmani & Khalily, 2017), agricultural investment (Kaboski and Townsend, 2012), have all shown positive associations.

The risk of entrepreneurial innovation failure influences MFIs' caution when dealing with entrepreneurs, particularly in emerging markets (Milana & Ashta, 2020).). Entrepreneurial capabilities are shaped by the context in which MFIs operate (Muithya & Muathe, 2020; Kimmitt, Muñoz & Newbery, 2020), and microcredit provided by MFIs helps entrepreneurs improve their capabilities (Banerjee & Jackson, 2017).). Despite high interest rates, entrepreneurs seek loans from microfinance institutions (MFIs) to pursue their dreams of entering existing markets or creating new ones (Milana & Ashta, 2020; Kimmitt et al., 2016). Corruption, which is prevalent in many developing economies, including Nigeria, poses a threat to the impact of microfinance on entrepreneurship, lowering entrepreneurs' returns on investment (ROI) (Lawal, Adebayo & Iyiola, 2017; Kimmitt et al., 2016; Oriaifo, Torres de Oliveira, & Ellis, 2020).

MFIs have a minimalistic approach, which focuses solely on financial services such as microcredit, and the credit plus approach, which combines financial services with non-financial support such as skill acquisition and training (Hearth, 2018; Eunice Abdul, 2018). While the minimalistic approach reduces costs by focusing solely on microcredit, the credit plus approach aims to ensure that loans are used for entrepreneurial purposes while also lowering default rates, and promoting positive returns for MFIs (Hearth, 2018). MFIs use a variety of microfinance lending models, including the Grameen model, village banking models, group lending models, peer pressure models, and NGOs, to identify eligible recipients and deliver microcredit (Dwivedi, 2017). To suit their operations, these models frequently incorporate features from multiple approaches. Providing services to the poor while remaining sustainable and operationally efficient is a challenge in microfinance. MFIs frequently lack the necessary funds for lending and must rely on outside sources to meet their goals (Cobb et al., 2016). Kamal (2016) proposes innovative approaches such as microfinance bonds to tap into the financial market and attract investors seeking low-risk investments with high returns to secure the future of microfinance. However, to achieve social impact and sustainability, it is critical to attract investors who prioritize social outreach goals (Cobb et al., 2016). It is in this regard that the purpose of the study is to examine the influence of microfinance institutions on Nigeria's SMMEs as a medium of poverty alleviation especially in areas concerning provision of financial services to medium and small-scale businesses as well as entrepreneurs. The specific objectives for the study were; (1) to examine the influence of Nigeria's MFIs on SMMEs and entrepreneurs and (2)) to determine the relationship between access to MFIs services and Nigeria's SMME business performance.

The study focuses on a critical aspect of Nigerian economic development, namely the relationship between microfinance institutions (MFIs) and small, micro, and medium enterprises (SMMEs). SMMEs are critical to job creation, poverty reduction, and overall economic growth. Understanding the impact of MFIs on SMMEs is critical for policymakers, financial institutions, and stakeholders interested in promoting inclusive financial systems and sustainable development. Furthermore, this study adds to the existing literature by examining the Nigerian context. Nigeria's microfinance sector faces unique challenges and opportunities as a developing country. This study adds to the body of knowledge on the impact and effectiveness of MFIs in a specific socioeconomic and cultural setting by being conducted in Nigeria. Additionally, the study sheds light on MFIs' role in poverty alleviation and financial inclusion. It looks at how MFIs can help unbanked or underserved individuals and businesses gain access to capital, manage risks, and improve their economic well-being. The study's findings can help shape policy recommendations and strategies for expanding MFIs' reach and effectiveness in promoting inclusive growth and reducing poverty in Nigeria. Furthermore, the study's quantitative approach, which includes a questionnaire survey and statistical analysis, contributes to microfinance research methodology. The study ensures the reliability and validity of its findings by employing rigorous research methods and data analysis techniques, further strengthening the evidence base for future research and decision-making. Overall, this research on the impact of MFIs on SMMEs in Nigeria offers important insights into the dynamics of microfinance, entrepreneurship, and economic development. It provides a comprehensive understanding of the Nigerian context's challenges and opportunities, and it contributes to knowledge in the fields of microfinance, small business development, and poverty alleviation strategies. The study's findings and recommendations can help policymakers, practitioners, and researchers develop effective policies and interventions to promote the growth and sustainability of SMMEs in Nigeria and other developing economies.

A. Problem Statement

The need for microfinance institutions to survive in a recessionary economy like Nigeria has led microfinance institutions to neglect high-risk SMMEs who need access to credit facilities. Given the rapid increase in number of MFIs in Nigeria (Abraham & Balogun, 2012) it is imperative that a look at the influence of MFIs on SMMEs in Nigeria is examined. Against this background, the research problem is formulated as follows:

Page | 1047

The Influence of Microfinance Institutions on Nigerian Small, Micro, and Medium Enterprises
Victor Ekpo, Patrick Ebong Ebewo

Despite the efforts of the Nigerian Government to eradicate poverty and encourage entrepreneurial activities by providing a conducive environment for microfinance institutions to thrive through the regulations set by its Central Bank, SMMEs are still lacking access to microfinance financial services.

II. METHODS

The study adopted a positivism research philosophy through quantitative cross-sectional research method. A questionnaire was used to collect data from 350 respondents through random selection technique. with a questionnaire distributed to 350 randomly selected respondents. The population of this study comprised of SMMEs in Abuja (485,055) and Nasarawa (383,206). The distribution of microfinance banks (MFBs) is disproportionate and skewed with some states having a large presence of MFBs. Abuja has about 60 different MFBs and other states like Nasarawa has only 8 MFBs. On this basis, Nasarawa state was chosen as a financial constrained state because it has only 8 MFBs with 383,206 SMMEs as of 2013. This translates to potentially 47,901 SMMEs being served by 1 MFB. Similarly, Abuja is categorised as a financially unconstrained state because it has 485,055 SMMEs being served by 60 MFBs. This means potentially 8,084 SMMEs served by 1 MFB. The two states were also chosen because of their proximity to one another. Data for this research was sourced through questionnaires administered by the researcher personally and through proxies. Primary data analysis was done using survey as the research strategy. Survey research entails the use of carefully crafted questions and responses as the primary data source (Saunders et al, 2009). This study employed cross-sectional method because the data used did not track the same group of SMMEs to see if they maintained relationship with their MFIs year after year. Data collected measures the number of MFIs registered in a particular State at the time of conducting the research to ascertain the influence of these MFIs on the SMMEs in that state. If the study is repeated using same parameters, the same MFIs and businesses may not be the participants. This makes it repeated cross-sectional data hence the cross-sectional study used in this research.

Statistical Packages for Social Sciences (SPSS) V28 was used to analyse the measurement instrument. Both descriptive and inferential statistics were used, as recommended by (Chapman, (2018).). Descriptive statistics entailed screening the data for potential errors and examining variable frequencies. Validity checks were carried out, and descriptive measures were employed to summarize the data and sample. To analyse relationships between categorized variables of interest, inferential statistics were used. This included using correlational analysis to investigate the relationship between two variables while keeping in mind that correlation does not imply causation (Creswell & Creswell, 2018). Furthermore, t-test analysis was performed to determine the statistical significance of specific data sets.

III. RESULTS AND DISCUSSION

With regards to the demographic characteristics of the respondents that participated in the study the results of the study revealed that, 52% (n=183) of females and 48% (n=167) of males participated in the study. In terms of ages 15,1% were aged 18-25 years old, 14% were 26-35 years old, 18.6% were aged 35-45 years old, 18.3% were aged 46-55 years old, 18% were aged 56-65 years old and 16% were aged 66 years and above. To add on the results showed that about 85% of the respondents are educated and hold at least a higher certification and above higher certificate educational qualification while a mere 15% of the respondents have obtained other educational qualifications. This shows that they have a good understanding of all the requirements that are needed by microfinance institutions to qualify for funding and higher levels of education are often associated with an increased ability to comprehend concepts.

The results of the study also showed that majority (84.3%) of the respondents have registered their business while 15.7% of the business are not registered. These registered businesses have various form of ownership that include sole traders, partnerships, private limited companies, non-profit organisations and cooperatives. The legal status with regards to the registration provides them with better chances of obtaining funding as MFIs check the legal status of the business before assisting with finance provides assurance and collateral security to microfinance institutions. Furthermore, an examination of the number of years in business and the ages of entrepreneurs revealed an intriguing relationship. According to the data, a small percentage of the sample's entrepreneurs started their businesses while they were still in their teens. These entrepreneurs tended to stay in business for a longer period as they matured, particularly between the ages of 35 and 45, compared to those who started at a younger age. However, as entrepreneurs aged 50 to 65, the proportion of those still in business began to fall.

In terms of business sectors, the results of the study show that respondents operate their business across all 23 sectors considered to be the most vibrant in the Nigerian economy by the Central Bank of Nigeria (CBN).

These sectors include mining, agriculture, retail and consumer, business consulting, clothing, textiles, travel, and leisure. The entrepreneur's discretion in selecting a specific sector for starting a business is based on market conditions and a thorough cost/benefit analysis. Potential SMME entrepreneurs typically avoid sectors that are perceived to take longer to break even, as they may face difficulties obtaining funding from microfinance institutions. As a result, prospective SMME owners must choose a profitable business sector to increase their chances of obtaining funding from microfinance institutions, which carefully examine the financial statements of the enterprises before making lending decisions. In general, respondents reported receiving a variety of specialized services from microfinance institutions (MFIs). The services of money transfer and training were particularly well-regarded, with the highest mean of 1.53 and a standard deviation of 0.500, indicating that respondents were extremely pleased with how the MFIs provided these services. The service of technology offering, on the other hand, had the lowest mean of 1.48 and a standard deviation of 0.500, indicating that there is room for improvement in terms of incorporating technology into MFI services. It's worth noting that, even in the COVID-19 era, some financial institutions are still struggling to adopt and use available technology services, limiting their ability to provide such services to their clients. Despite the challenges posed by the pandemic, the overall mean of 1.51 for the provision of specialized services confirms that microfinance institutions are effectively providing services such as savings accounts, insurance, pension, money transfer, training, and technology to their clients.

The results of the study also reveal that SMMES receive consultation services from MFIs (leadership, finance, operation, marketing and administration. The consultant service of operation had the highest mean of 1.55 and the lowest standard deviation of 0.499, indicating that respondents were extremely pleased with how MFIs provided this service. Finance and administration offerings, on the other hand, had the lowest means, both close to 1.5, with means of 1.48 and 1.47, respectively, and standard deviations of 0.500, indicating that providing financial and administrative services may be more difficult for some microfinance institutions. Despite the challenges, the overall mean of 1.508 for providing specialized services confirms that microfinance institutions effectively provide consultant services to their clients such as leadership, operation, marketing, financial services, and administration. This demonstrates their dedication to assisting SMMEs in all aspects of their business operations.

The study results also showed that MFIs are not playing an effective positive role in assisting SMEs. The aspects of facilitator of SMEs growth (mean of 1.49), tool for social change (mean of 1.47), provider of banking services to the people (mean of 1.48), and transferor of technology (mean of 1.48) and destroyer of SMEs (mean of 1.48) received mean scores that are below 1.5 with a standard deviation of above 0.500 which indicates the ineffectiveness of MFI role on SMEs. Out of the six aspects that were used to measure the role of MFI on SMES only, the tool for empowerment (mean of 1.5) is regarded to be effective for MFI. This finding is consistent with the survey findings, indicating that MFIs are not viewed as agents of social change in the business environment. These findings emphasize the importance of MFIs improving their performance and effectiveness in areas such as social impact, finance, and administration. MFIs must address these perceptions and strive to better fulfill their intended roles as business growth enablers, banking service providers, and social change agents. Furthermore, descriptive analysis was conducted on several factors *to* examine the influence of microfinance institution (MFI) activities on the performance of small, micro, and medium enterprises (SMMEs) in Nigeria: micro-credit utilization, reasons for acquiring micro-loans, financing amounts received, interest charged, and collateral required. According to the findings, respondents borrow money primarily from friends and relatives, microfinance institutions, commercial banks, and credit cooperative societies, with the majority borrowing from friends and relatives. Most borrowed amounts are N500,000 or less, with SMMEs hesitant to borrow larger sums. Borrowed funds are typically used for construction projects, the acquisition of new equipment, the start-up of new businesses, the expansion of existing businesses, and as working capital. In Nigeria, interest rates on borrowed funds range from 10% to 50%, with *most* rates falling below 30%. Collateral security in the form of natural, physical, and financial assets is typically required by microfinance institutions. These findings can help MFIs and SMMEs tailor their financial services and support the growth and development of SMMEs in Nigeria.

V. CONCLUSION

The study concludes that MFIs in Nigeria positively influence SMMEs performances through offering the following services: money transfer, training, insurance and the service of technology transfer. The study also concludes that MFIs play an important for SMMEs in the Nigeria by effectively providing consultation services of leadership, finance, operation, marketing and administration. Contrary to the above the study concludes that MFIs in Nigeria are ineffective in offering the services of aspects of facilitator of SMEs growth, tool for social change, provider of banking services to the people and transferor of technology. From the data analyzed MFIs

provide the necessary services, skills and expertise that enable SMMEs to turn a net profit if correctly implemented.

Based on the study findings, policymakers and MFIs are recommended to consider the following:

1. The CBN should take proactive steps to ensure that MFIs prioritize serving SMMEs over serving as commercial banks. This can be accomplished through regulatory frameworks, licensing requirements, and MFI performance monitoring. MFIs can effectively contribute to the growth and sustainability of the SMME sector in Nigeria by promoting tailored financial products and services for them and dedicating a significant portion of their loan portfolios to them.

2. To better serve the needs of SMMEs, it is crucial for MFIs to enhance their efforts in sensitizing and educating their customer base. This can be achieved through targeted awareness campaigns and educational programs that provide SMMEs with valuable knowledge and skills related to financial management, business development, and entrepreneurship. In addition, MFIs should actively tailor their products and services to cater to the unique requirements of SMMEs, considering factors such as flexible repayment terms, loan sizes, and collateral requirements that are suitable for small businesses. By combining effective sensitization efforts with customized offerings, MFIs can effectively support SMMEs in their growth and development, empowering them to thrive in the dynamic business environment.

3. It is recommended that MFIs offer low-interest loans specifically designed for business expansion to foster the growth and development of SMMEs. MFIs can encourage SMMEs to borrow funds for expanding operations, investing in new technologies, or entering new markets by providing access to affordable credit. Lower interest rates not only alleviate the financial burden on SMMEs, but also improve their ability to repay loans, promoting long-term business growth. This strategy promotes entrepreneurship, fosters innovation, and facilitates the creation of job opportunities, all of which contribute to the overall economic development of the SMME sector.

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The Influence of Microfinance Institutions on Nigerian Small, Micro, and Medium Enterprises
Victor Ekpo, Patrick Ebong Ebewo

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Page | 1051

The Influence of Microfinance Institutions on Nigerian Small, Micro, and Medium Enterprises
Victor Ekpo, Patrick Ebong Ebewo

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana

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ABSTRACT

Purpose: This study investigates the factors contributing to the low uptake of Insurance Institute of South Africa (IISA) membership among insurance professionals in Botswana. The goal is to comprehend this phenomenon and provide insights into improving membership rates.

Design / Methodology / Approach: A questionnaire-based survey targeting insurance professionals, students, and lecturers was employed. This approach aimed to gather comprehensive perspectives on membership uptake and related factors. The survey identified primary influences on low membership uptake, including lack of awareness, high fees, perceived limited value, and inadequate networking opportunities. The study explored the importance of membership, benefits, barriers, and suggestions for boosting participation.

Findings: The study reveals crucial factors contributing to low IISA membership rates. Challenges include insufficient awareness of benefits, high fees deterring potential members, perceived value gaps, and limited networking prospects. These insights provide a holistic understanding of obstacles faced by insurance professionals in joining IISA. The research underscores the significance of professional organization membership for networking, skill enhancement, and career growth. However, financial, and perceptual barriers hinder potential members from joining.

Paper type: Research Paper

I. INTRODUCTION

The Insurance Institute of South Africa (IISA) offers professional membership to insurance practitioners in many countries including Botswana. However, the uptake of this membership has been relatively low in Botswana. Understanding the factors that contribute to this low uptake is crucial for devising strategies to increase membership and enhance the professional development of insurance professionals in Botswana. This study aims to explore these factors and provide insights into potential solutions.

In recent years, the Insurance Institute of South Africa (IISA) has emerged as a prominent institution offering professional membership to insurance practitioners in various countries, extending its reach to the aspiring insurance professionals in Botswana as well. Despite the vast opportunities and benefits that come with IISA membership, the uptake of this esteemed membership among insurance professionals in Botswana has remained disappointingly low. This calls for a critical investigation into the underlying factors that impede its uptake, as understanding these barriers is essential for devising effective strategies aimed at augmenting membership rates and fostering the professional growth and development of insurance practitioners in the region.

As the insurance landscape in Botswana continues to evolve, the role of professional organizations like IISA becomes increasingly crucial in providing a platform for knowledge exchange, skill enhancement, and networking opportunities within the insurance industry (Markova et al., 2013). However, the persistent low uptake of IISA

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1052

membership poses challenges not only for the organization itself but also for the insurance professionals who miss out on the numerous advantages associated with being part of such a prestigious professional body (IISA, 2022).

A. Literature review

Membership in professional organizations plays a vital role in the development and advancement of professionals in various industries (Gruen et al., 2000a). These organizations offer a range of benefits, including access to industry resources, professional development opportunities, networking platforms, and recognition programs (Angle & Perry, 1981). However, despite the potential advantages, the uptake of professional membership among insurance professionals in Botswana remains low (Gabaraane Magdeline, 2003).

Several factors may contribute to the low uptake of Insurance Institute of South Africa (IISA) membership in Botswana. One significant factor is the lack of awareness among insurance professionals regarding the benefits and value associated with professional membership (Wilson, 1997). Limited understanding of the advantages and benefits offered by any professional association including the IISA to may lead to a reluctance to invest in membership (Hall & Weaver, 2001).

Membership in professional organizations is widely recognized as a crucial aspect of professional development and career advancement across various industries (Gruen et al., 2000a). These organizations offer a plethora of benefits that can significantly contribute to an individual's growth and success, including access to valuable industry resources, exclusive professional development opportunities, robust networking platforms, and prestigious recognition programs (Angle & Perry, 1981). However, despite the potential advantages that such affiliations offer, the uptake of professional membership among insurance professionals in Botswana has remained disappointingly low (Gabaraane Magdeline, 2003).

Unravelling the underlying reasons for this lacklustre membership uptake is imperative to devise effective strategies for increasing participation and enhancing the professional development landscape for insurance professionals in Botswana. One of the most prominent factors contributing to this issue is the pervasive lack of awareness among insurance practitioners regarding the myriad of benefits and value that professional membership with the Insurance Institute of South Africa (IISA) can bring to their careers (Wilson, 1997). It appears that many insurance professionals in Botswana may not fully comprehend the advantages they can gain from affiliating with a reputable professional organization like the IISA, which may lead to a reluctance to invest in membership (Hall & Weaver, 2001).

Furthermore, the high membership fees charged by the Insurance Institute of South Africa (IISA) may also act as a deterrent for potential members in Botswana (Chapman & Monk, 2003). While the benefits of professional membership are widely acknowledged, the cost associated with joining and maintaining membership can create financial constraints for insurance professionals, particularly those in the early stages of their careers or those working in smaller firms with limited resources. As a result, the perceived financial burden may dissuade them from pursuing membership, even if they recognize its potential value (Green & Williams, 2007).

Perceptions of the value offered by professional memberships can significantly impact uptake rates as well. If insurance professionals do not perceive the IISA's membership as essential for their career advancement or if they doubt its ability to provide tangible benefits, they may choose not to join (Douglas, 1971). This perception issue could be influenced by various factors, such as inadequate communication from the IISA about the specific advantages of membership, a lack of success stories or testimonials from current members, or simply a misunderstanding of the opportunities available through the affiliation (Jackling et al., 2007).

Another contributing factor to the low membership uptake might be the absence of sufficient networking opportunities provided by the IISA in Botswana (Newell & Clark, 1990). Networking plays a pivotal role in professional growth, fostering connections with peers, industry experts, and potential employers. However, if the IISA fails to organize networking events or establish platforms for members to interact and collaborate, insurance professionals may find limited value in joining the organization.

Addressing these challenges and promoting higher membership uptake in the IISA requires a comprehensive approach. Firstly, efforts should be made to improve awareness and communication strategies, ensuring that insurance professionals in Botswana are well-informed about the benefits and opportunities offered by the IISA membership (Dubrowski et al., 2015). This could involve targeted marketing campaigns, informational webinars, and collaborations with local insurance institutions to disseminate information effectively.

Secondly, the IISA should evaluate its membership fee structure to ensure that it is reasonable and accessible to a broader range of insurance professionals (Wennberg et al., 1982). Considerations for reduced fees for young professionals or those from economically challenged backgrounds could be explored to make membership more attractive and inclusive.

Moreover, efforts should be made to enhance the perceived value of IISA membership through tangible and intangible benefits (Holm et al., 2020) . This could include expanding the range of professional development opportunities, offering specialized training programs, and establishing partnerships with companies to provide exclusive discounts on industry-related resources.

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1053

To foster networking opportunities, the IISA can organize regular events, seminars, and conferences where members can meet and exchange knowledge and experiences (Agarwal & Islam, 2016). Leveraging technology through virtual networking platforms can also extend opportunities to interact, collaborate, and share expertise regardless of physical location.

Targeting non-members and new entrants to the insurance industry is essential as well. Engaging with students pursuing insurance-related courses and young professionals early in their careers can instil the value of professional membership and establish a long-term commitment to the IISA (Roscoe, 2002).

Lastly, the IISA should establish mechanisms for regular evaluation and feedback from its members to gauge satisfaction levels, identify areas for improvement, and adapt its offerings to suit the evolving needs of insurance professionals in Botswana (Darling-Hammond, 1989). This iterative approach to improving services and benefits can lead to a more responsive and relevant professional organization.

The low uptake of Insurance Institute of South Africa (IISA) membership among insurance professionals in Botswana requires a multi-faceted approach. By improving awareness, reviewing membership fees, enhancing the perceived value of membership, fostering networking opportunities, targeting non-members and new entrants, and establishing mechanisms for regular evaluation and feedback, the IISA can enhance its visibility, increase membership uptake, and provide valuable resources and opportunities for insurance professionals in Botswana (Todres, 1982). Through these measures, the IISA can play a more significant role in advancing the careers of insurance professionals and contributing to the growth and development of the insurance industry in Botswana.

Additionally, high membership fees have been recognized as a barrier to professional organization membership in various industries (Hagey et al., 2014). Insurance professionals in Botswana may perceive the current membership fees as prohibitive, deterring them from joining the IISA.

According to Markova et al. (2013), another potential factor is the perceived lack of value in professional organization membership. Insurance professionals need to see tangible benefits and returns on their investment in membership, such as opportunities for professional growth and career advancement (Luthans & Youssef, 2004).

Furthermore, networking opportunities play a crucial role in fostering professional relationships and staying updated on industry trends (Pittaway et al., 2004). Limited networking platforms within the IISA may discourage insurance professionals from seeking membership.

To address these challenges and increase membership uptake among insurance professionals in Botswana, it is essential to identify the specific factors influencing membership decisions and develop strategies to overcome them.

II. METHODS

An online questionnaire was developed to gather data on the demographics of the participants and their perspectives on the factors influencing membership uptake. The questionnaire was designed using an online survey platform and distributed to insurance professionals, students, and lecturers in Botswana.

The questionnaire consisted of various sections. In the demographics section, participants were asked to provide their age, gender, occupation, years of experience in the insurance industry, and previous membership status. This information helped in understanding the profile of the respondents and its potential influence on their perspectives.

The questionnaire also included sections to capture participants' views on membership in a professional organization. Participants were asked to rate the importance of membership using a Likert scale. They were also given predefined options to identify benefits of professional membership and barriers preventing membership. This allowed for quantifying participants' opinions on these factors.

Furthermore, insurance students and lecturers were specifically asked about the adequacy of the Insurance Institute of South Africa's (IISA) marketing efforts. They were invited to provide their feedback on the current marketing strategies and offer suggestions for improvement.

To distribute the questionnaire, various online channels were utilized. These included email invitations sent to targeted participants, posting the questionnaire link on relevant websites or forums, and sharing the survey on social media platforms frequented by insurance professionals, students, and lecturers. Participants were given a specified timeframe to complete the questionnaire.

Data collected from the online questionnaire were analysed using appropriate statistical methods. Descriptive statistics were used to summarize the demographic information, including frequencies, means, and standard deviations. The ratings and responses regarding the importance of membership, benefits, and barriers were also analysed quantitatively to identify trends and patterns. For the qualitative data collected, such as open-ended responses and suggestions for improving marketing efforts, thematic analysis was conducted. The responses were carefully read, coded, and categorized into themes to identify common ideas and insights.

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA)
Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1054

Throughout the research process, ethical considerations were upheld. Participants were informed about the purpose of the study, their rights, and the confidentiality of their responses. Informed consent was obtained from all participants, and their identities were kept anonymous. The online survey platform ensured the security and privacy of the collected data.

According to Cole et al.(2013), the use of an online questionnaire allowed for efficient data collection from a geographically diverse group of participants. It provided a convenient and accessible method for participants to complete the survey at their convenience. The qualitative data analysis provided a comprehensive understanding of the factors influencing membership uptake and suggestions for improving marketing efforts among insurance professionals, students, and lecturers in Botswana.

III. RESULTS AND DISCUSSION

The survey yielded a noteworthy response rate of 73% (n=73/100), indicating a substantial level of engagement from the targeted participants. This response rate aligns with the findings of Mugenda and Mugenda (2013) quoted by Omona, (2013) who suggested that a 50% response rate is generally considered acceptable for validating survey responses.

A robust response rate is crucial in ensuring the reliability and validity of survey data (Creswell & Creswell, 2018). By surpassing the recommended threshold, the achieved response rate reinforces the representativeness of the obtained responses and strengthens the credibility of the study's findings.

According to (Saunders et al., 2023), aalthough a response rate of 73% signifies a considerable level of participation, it is important to acknowledge potential limitations and biases associated with the sample size and response rate. Despite efforts to maximize participation, the non-response bias may still exist, which could introduce potential distortions in the collected data. However, research suggests that non-response bias tends to be minimal when response rates exceed 50% (Saunders et al., 2015). Furthermore, additional measures were implemented to ensure the reliability of the responses, such as data validation checks and anonymization procedures.

Overall, the substantial response rate of 73% enhances the trustworthiness of the survey findings, aligning with established research and indicating a robust level of participant engagement. These results provide a solid foundation for drawing meaningful conclusions and offering valuable insights into the research topic.

The survey received a total of 73 responses out of the 100 questionnaires sent, resulting in a response rate of 73%. The demographic profile of the respondents was as follows:

1. Age: The majority of respondents fell into the 18-24 age group (32 responses), followed by 35-44 (18 responses) and 45-54 (7 responses) age groups.

18-24	25-34	35-44	45-54	55-64	other
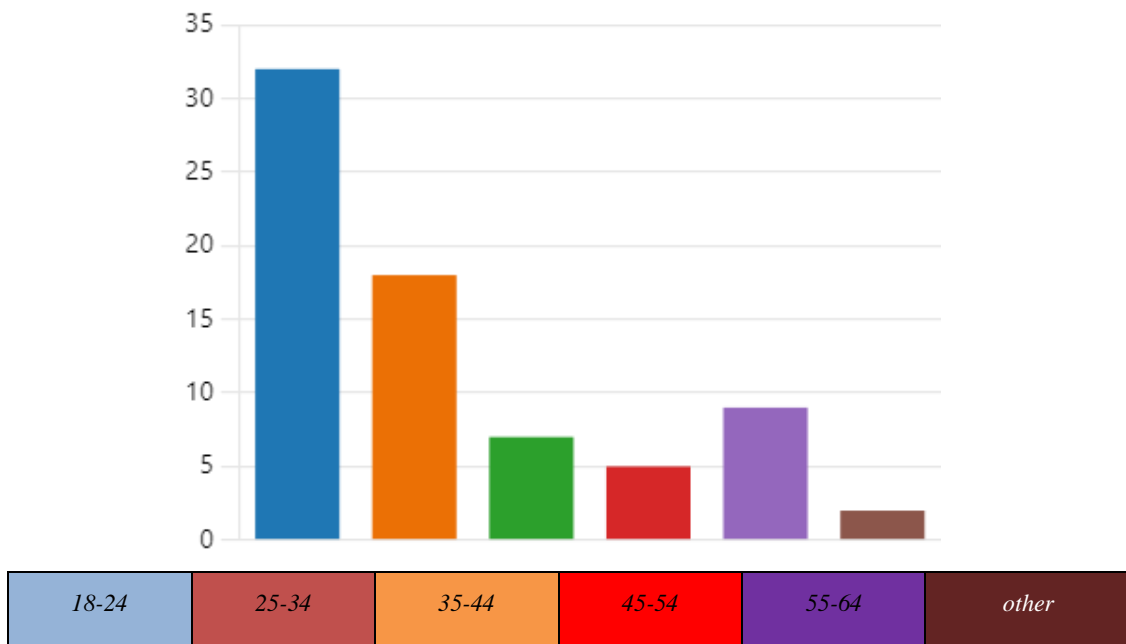
Figure 1

Source: Authors Compilation

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1055

2. Gender: The respondents consisted of 43 women and 29 men, with no non-binary or prefer not to say responses.

Male	*Female*
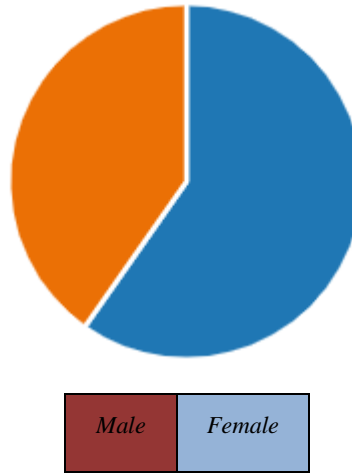
Figure 2

3. Occupation: The largest groups of respondents were students (31 responses) and insurance practitioners (31 responses), followed by educators (4 responses) and other occupations (6 responses).

Student	*Insurance Practitioner*	*Educator*	*Other*
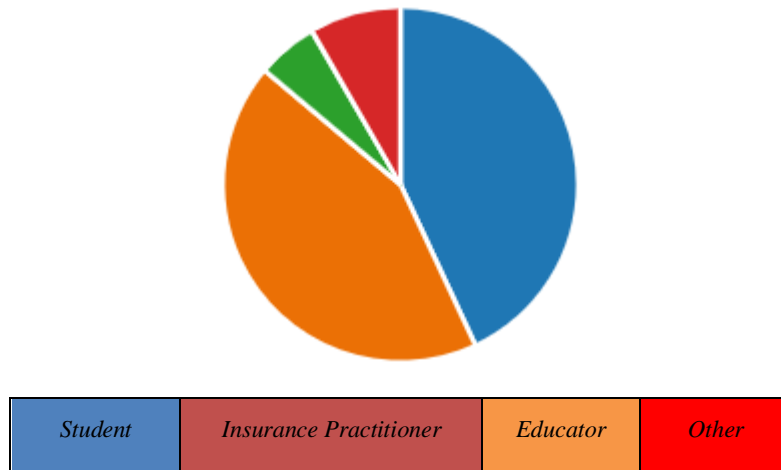
Figure 3

Source: Authors Compilation

4. Experience in the insurance industry: The highest number of respondents had worked in the insurance industry for more than 10 years (21 responses), followed by less than 1 year (30 responses), 1-3 years (8 responses), 7-10 years (7 responses), and 4-6 years (6 responses).

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1056
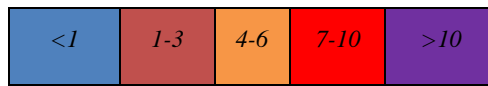
Figure 4

Source: Authors Compilation

Regarding membership in the Insurance Institute of South Africa (IISA) at the professional level, only 21 respondents reported being previous members, while 52 respondents had never been members.
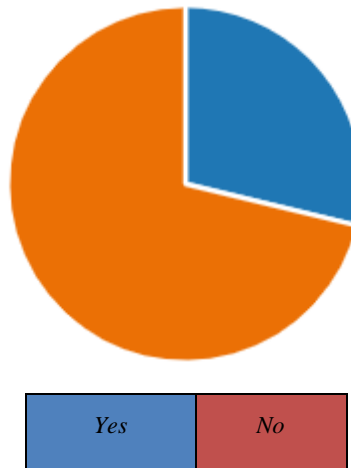
Figure 4

Factors contributing to the low membership uptake in the IISA were identified as follows:
a. Lack of awareness: 44 respondents identified this as a factor.
b. High membership fees: 11 respondents highlighted this as a barrier.
c. Perceived lack of value: 12 respondents considered this a factor.
d. Other reasons: 5 respondents mentioned other factors affecting membership uptake.

The importance of professional organization membership for insurance professionals was perceived as extremely important by the majority of respondents (60 responses), with 8 respondents considering it somewhat important, and 4 respondents expressing a neutral stance.

Respondents believed that insurance professionals can gain various benefits from membership in a professional organization like the IISA (Markova et al., 2013). The benefits mentioned were:
a. Professional development opportunities: 40 respondents recognized this benefit.
b. Networking opportunities: 10 respondents identified networking as a benefit.
c. Access to industry resources: 1 respondent mentioned this benefit.
d. Recognition and credibility: 18 respondents saw this as a benefit.
e. Other benefits: 3 respondents mentioned additional benefits.

Barriers preventing insurance professionals from becoming members of professional organizations, including the IISA, were reported as follows:
a. Lack of time: 13 respondents perceived this as a barrier.
b. Lack of interest: 18 respondents identified this as a factor.
c. High membership fees: 20 respondents considered this a barrier.
d. Perceived lack of value: 17 respondents highlighted this as a barrier.
e. Other barriers: 4 respondents mentioned other factors.

To increase membership uptake among insurance professionals in Botswana, the following suggestions were provided:
a. Reduce membership fees: 9 respondents recommended this strategy.
b. Increase awareness of membership benefits: 48 respondents emphasized the need for better awareness.
c. Offer more networking opportunities: 13 respondents identified this as a potential solution.
d. Other suggestions: 2 respondents provided alternative recommendations.

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1057

Regarding the adequacy of marketing professional membership to students and lecturers in Botswana, the majority of respondents (51 responses) believed that the IISA does not adequately market its professional membership. However, 21 respondents expressed a positive view.

To improve outreach to insurance students and lecturers in Botswana, the following suggestions were made:
a. Offer student discounts: 9 respondents recommended this approach.
b. Partner with educational institutions: 39 respondents highlighted the importance of collaboration.
c. Increase visibility on social media: 20 respondents suggested enhancing online presence.

Other suggestions: 3 respondents provided additional recommendations.

V. CONCLUSION

The findings of the survey indicate several factors contributing to the low uptake of IISA membership among insurance professionals in Botswana. Lack of awareness emerged as the primary factor influencing the low membership uptake. This finding aligns with previous research highlighting the importance of effective marketing and communication strategies to raise awareness about the benefits and value of professional membership (Alotaibi, 2007). To address this issue, the IISA should consider implementing targeted marketing campaigns, utilizing various channels such as social media, industry events, and collaborations with educational institutions(Wilson, 1997). By increasing awareness, insurance professionals will have a better understanding of the advantages and opportunities that come with IISA membership.

Another significant factor identified in the survey was high membership fees. This finding is consistent with previous studies that have recognized cost as a barrier to professional organization membership (Gruen et al., 2000b) To address this concern, the IISA should assess its membership fee structure and consider potential adjustments or alternative payment options. For instance, offering discounted rates for students or introducing flexible payment plans may attract more members, particularly those who perceive the current fees as prohibitive.

The perceived lack of value was also identified as a barrier to membership uptake. Insurance professionals need to see tangible benefits and returns on their investment in professional membership (Otten et al., 2016). The IISA should strive to enhance the value proposition by providing a range of benefits that meet the needs and expectations of its members (Wu et al., 2018). This may include offering professional development opportunities, access to industry resources, recognition programs, and networking events. By demonstrating the practical advantages of membership, the IISA can appeal to a wider audience and increase its attractiveness among insurance professionals.

Networking opportunities emerged as a factor influencing membership uptake. Insurance professionals recognize the value of building connections and expanding their professional networks (Wu et al., 2018). The IISA should focus on organizing networking events, conferences, and workshops where members can interact and establish meaningful professional relationships (Romero & Molina, 2011). By facilitating networking opportunities, the IISA can create a vibrant community that fosters collaboration, knowledge sharing, and career advancement.

It is noteworthy that the survey revealed a significant proportion of respondents who had never been members of the IISA. This highlights the untapped potential for growth in membership. The IISA should develop targeted recruitment strategies to engage insurance professionals who have not yet considered joining a professional organization (Crosby & Stephens, 1987). These strategies may include personalized outreach, showcasing success stories of current members, and emphasizing the specific benefits and opportunities that the IISA can offer.

In conclusion, the findings of this survey provide valuable insights into the factors influencing the low uptake of IISA membership among insurance professionals in Botswana. Addressing issues related to awareness, perceived value, high membership fees, and networking opportunities can contribute to increasing membership uptake (Agarwal & Islam, 2016). By implementing targeted marketing campaigns, reviewing membership fees, enhancing the value proposition, and facilitating networking events, the IISA can attract more members and establish itself as a valuable resource for insurance professionals in Botswana(Gruen et al., 2000a).

Based on the findings and discussions, the following recommendations are proposed to address the low uptake of Insurance Institute of South Africa (IISA) membership among insurance professionals in Botswana:
1. Improve Awareness and Marketing Efforts:
   The IISA should invest in comprehensive marketing strategies to increase awareness about the benefits and value of membership (Wilson, 1997). This can include targeted online campaigns, participation in industry events and conferences, collaborations with educational institutions, and leveraging social media platforms

Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA)
Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1058

to reach a wider audience (Dwivedi et al., 2021). Clear and concise messaging should be used to highlight the advantages of IISA membership.

2. Review and Adjust Membership Fees:
   The IISA should evaluate its membership fee structure to ensure it is competitive and reflects the value provided. Consideration should be given to introducing different membership tiers or options, such as discounted rates for students or early-career professionals. Offering flexible payment plans or instalment options can also help mitigate the financial burden and make membership more accessible (Gomez & Ramiro, 2019).

3. Enhance Perceived Value:
   The IISA should continuously assess and enhance the benefits offered to members. This can include expanding professional development opportunities, providing access to exclusive industry resources and publications, offering recognition programs for achievements and expertise, and facilitating mentorship programs or career advancement initiatives (Montgomery, 2017). Regular communication with members to understand their evolving needs and preferences can inform the development of valuable offerings (Romero & Molina, 2011).

4. Foster Networking Opportunities:
   IISA should prioritize organizing networking events, conferences, and workshops to facilitate connections among members (Alagappa, 2009). These platforms will allow insurance professionals to engage in knowledge sharing, collaborate on industry challenges, and build relationships that can lead to professional growth and opportunities (Capricho et al., 2021). Creating online forums or platforms where members can connect virtually can also complement in-person networking activities (Bowen, 2012).

5. Target Non-Members and New Entrants:
   The IISA should develop targeted recruitment strategies to engage insurance professionals who have not yet considered joining a professional organization (Mukwena & Manyisa, 2022). Personalized outreach efforts, testimonials from current members highlighting the benefits they have experienced, and showcasing success stories of individuals who have advanced their careers through IISA membership can be effective approaches (Eddy et al., 1982). Tailoring the value proposition to specific segments, such as students or early-career professionals, can also attract new members.

6. Regular Evaluation and Feedback:
   The IISA should establish mechanisms to regularly evaluate member satisfaction and collect feedback to continuously improve its offerings and address any concerns or issues (Hulscher, 2003). Surveys, focus groups, and advisory committees can be utilized to gather insights from the membership base and inform decision-making processes (Beierle, 2005).

7. By implementing these recommendations, the IISA can enhance its visibility, increase the perceived value of membership, and create a vibrant community that attracts and retains insurance professionals in Botswana.

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Maalila Malambo

Page | 1059

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*Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA)
Membership Among Insurance Professionals in Botswana*
Maalila Malambo

Page | 1060

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Investigating Factors Affecting the Low Uptake of Insurance Institute of South Africa (IISA) Membership Among Insurance Professionals in Botswana
Maalila Malambo

Page | 1061

The Influence of Tax Planning, Deferred Tax Expenses, Managerial Proficiency, and Managerial Ownership on Earnings Management
(Case Study in The Food Sector IDX 2017-2021)

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ABSTRACT

Purpose: This study aims to analyze the effect of tax planning, deferred tax expense, managerial skills, and managerial ownership on earnings management.

Design/methodology/approach: This study uses a quantitative approach in the form of financial statements of food and beverage companies listed on the Indonesia Stock Exchange from 2017 to 2021. The sampling technique used in this study used a purposive sampling approach, the number of samples used in this study were 85 samples.

Findings: The results of this study indicate that tax planning has an effect on earnings management, deferred tax expense has an effect on earnings management, managerial skills have no effect on earnings management, managerial ownership has no effect on earnings management and tax planning, deferred tax expenses, managerial skills and managerial ownership have an effect simultaneously on earnings management

Research limitations/implications: The study uses only one dependent variable, namely earnings management, and uses 4 independent variables, namely Tax Planning, Deferred Tax Expenses, Managerial Skills and Managerial Ownership, this research does not use it until 2022 because the financial reports of the sample companies have not yet been published.

Practical implications: For companies this research is used to add insight regarding the effect of tax planning, deferred tax expense and managerial skills and managerial ownership on earnings management

Originality/value: This Paper is Original

Paper type: Research paper

Keyword: Tax Planning, Deferred Tax Burden, Managerial Proficiency, Managerial Ownership and Earnings Management

I. INTRODUCTION

A simple assessment of the work of a company within a company can reflect the level of profit that has been achieved in that company. The company has interested parties who can use the profit information in making decisions for the continuity of the company's operations. Information on the profits of a company can be used by internal and external parties of the company as a basis for making decisions related to bonuses, compensation, performance benchmarks and management performance as well as the basis for determining the amount of a tax. Therefore, the quality of the profit information that has been presented by the company has certainly attracted attention from various directions, both investors, creditors, and accounting policy makers, as well as the government, namely the Directorate General of Taxes.

In managing a company, management can directly earn very high profits, this of course has a direct effect on bonuses that will be obtained from management for the performance that has been carried out which later if

the bonuses obtained are high then the achievement of profit gains will also follow increasingly also the high success achieved by the company. On the other hand, estimating the power of earnings in estimating investment and credit risk from the profit information will be able to help owners (stakeholders) so that management can be responsible for the profit information, whose performance is measured through the achievements of the profits earned.

Companies currently face various kinds of very tight competition in order to survive in the global market, of course the manufacturing industry in Indonesia is not immune from the onslaught of competition. Companies must have a competitive advantage in order to be able and able to compete with many other companies, not only in terms of quantity and quality but also includes good financial management. That is, various kinds of policies in financial management must be able to guarantee the sustainability of the company's business and this is indicated by the amount of profit that has been achieved by the company. This situation usually encourages managers to engage in deviant behavior in presenting and reporting earnings information which is known as earnings management or earnings management practices (Aditama & Purwaningsih, 2014)

A. Agency Theory

According to (Jensen & Meckling, 1976) in (Ujiyantho & Pramuka, 2007) agency theory explains a contract between the manager (agent) and the owner (principal). Between principals and agents, investors prefer reports from agents because agents who manage company management know more about the actual conditions of the company, while the principal is only the owner of the company who receives reports from management.

B. Tax Planning

Tax planning (tax planning) is the initial stage to carry out a systematic analysis of various alternative tax treatments with the aim of achieving fulfillment of minimum tax obligations. Tax planning (tax planning) is part of tax management broadly. However, it cannot be denied that the term tax planning is more popular than the term tax management. Tax planning is an integral part of tax management. Tax planning can be applied when the taxpayer will start their business activities until closing the business (liquidation), if it really happens. Tax planning begins when setting up a company, when running a business, and when closing a business. Therefore, tax planning in its implementation requires qualified personnel, adequate work tools, and work procedures that are timely, accurate, and accurate in information (Pohan, Drs. Chairil Anwar.MSi, 2013)

C. Deferred Tax Expense

Income tax expense is calculated using tax rules on the company's operating results during the period of the year concerned. According to the tax rules, companies must make fiscal corrections because there are differences in the method of measuring income, the concept of income, the method of measuring costs, the concept of costs and the method of allocating costs between Financial Accounting Standards (SAK) and tax regulations. Tax rules continue to use accounting information and data that have been regulated by Financial Accounting Standards (SAK), namely as a basis for determining these corrections based on applicable tax regulations. Income tax expense consists of current tax expense and deferred tax expense on deferred tax income. Current tax or current tax is the amount of income tax payable on taxable income in one period. Deferred tax expenses will give rise to deferred tax liabilities while deferred tax revenues will give rise to deferred tax assets (Agoes et al., 2010).

D. Managerial Skills

According to (Isnugrahadi & Kusuma, 2009) the key to the success of a company is the success of managers designing efficient business processes. In addition, managers must also be able to make decisions that add value to the company. So that a capable manager is needed, namely a manager who has qualified abilities in the field for which he is responsible.

E. Managerial ownership

According to (Jensen & Meckling, 1976) suggests that managerial ownership has succeeded in becoming one of the determining factors for reducing agency problems from managers by aligning the interests of managers with shareholders.

F. Earnings management

Earnings management is a form of deviation in the process of preparing financial statements, which affects the level of profit shown in the financial statements. According to (Abdelghany, 2005) earnings management is income manipulation done to meet the targets set by management. Meanwhile (Lo, 2008) classifies earnings management in two categories, namely real earnings management such as actions to influence cash flows, and accrual management through changes in estimates and accounting policies. Other researchers (Yoon et al., 2006)

The Influence of Tax Planning, Deferred Tax Expenses, Managerial Proficiency, and Managerial Ownership on Earnings Management (Case Study in The Food Sector IDX 2017-2021)
Ariyani, Aisyah Milafatma Noeraini

Page | 1063

classify earnings management into two groups, namely beneficial earnings management and opportunistic earnings management.

E. Research Framework

The following will explain the research framework, namely:
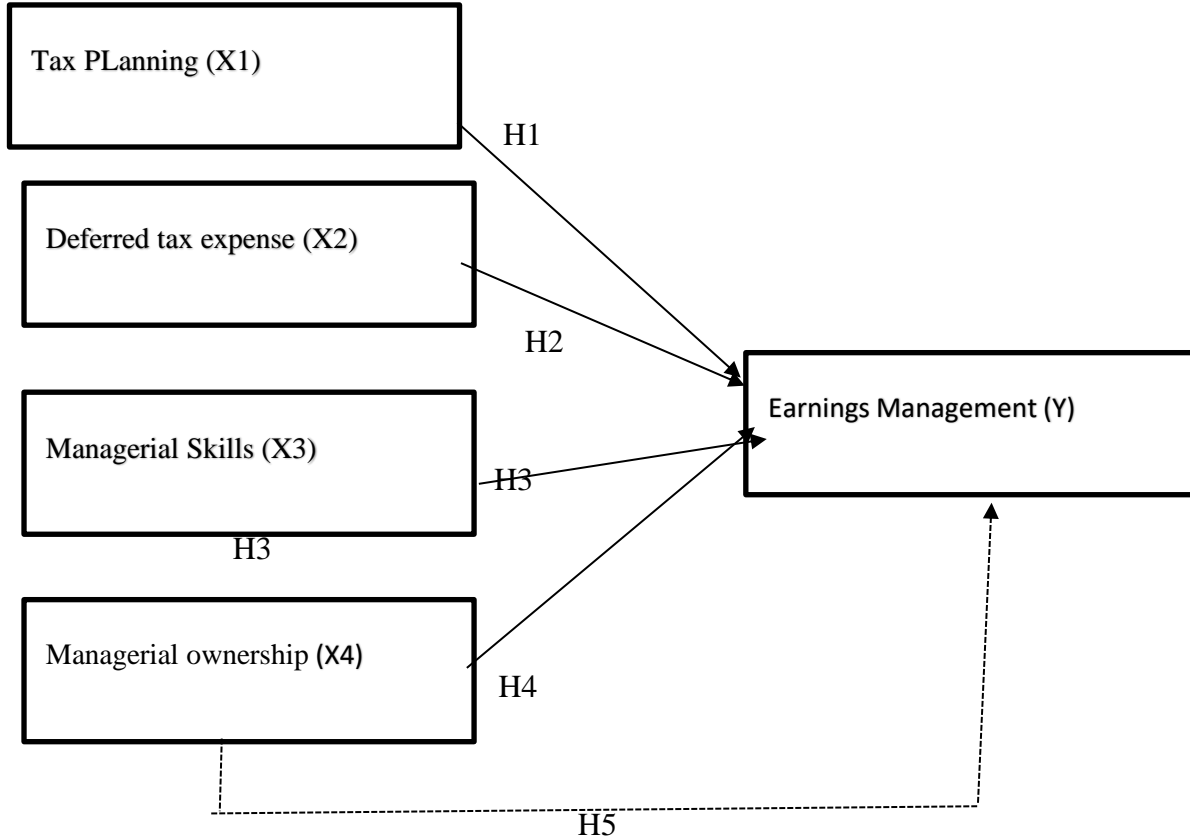
Figure 1 : Research Framework

From the model above, the research hypothesis is arranged as follows :

H1: Tax planning has a positive significant effect on profit management
H2: Deferred tax expense has a positive significant effect on profit management
H3: Managerial ability has a positive significant effect on profit management
H4: Managerial ownership has a positive significant effect on earnings management
H5:Tax planning, deferred tax expense, skills managerial, and managerial ownership of earnings management

II. METHODS

A. Types of Research

Judging from the type of research used in this study is a quantitative approach. The quantitative method is a research method carried out based on the philosophy of positivism, used for research on certain populations or samples, by collecting data using research instruments, data analysis is quantitative/statistical. (Sugiyono, 2018)

Sugiono (2017: 130) says the population is a generalization consisting of objects/subjects that have certain quantities and characteristics according to what the researcher has determined to study and then draw conclusions. In this study the population used is manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2017-2021.

According to Sugiono (2017: 131) the sample is part of the number and characteristics possessed by the population that has been selected by the researcher. The sample selection in this study used a non-probability

sampling technique, namely purposive sampling technique. Sugiono (2017: 138) says that purposive sampling is a sampling technique based on certain considerations.

Considerations for selecting the sample to be used include:
1. Food and beverage manufacturing companies that publish annual financial reports consecutively on the IDX website during the 2017-2021 period.
2. Food and beverage manufacturing companies using the rupiah currency in 2017-2021.
3. Food and beverage manufacturing companies on the IDX that experienced successive profits during 2017-2021.

B. Data Types and Sources

Types of Data This researcher uses secondary data types. Secondary data is data that is already available. The data needed in this research is in the form of company financial reports that have been published on the Indonesia Stock Exchange (IDX) website via www.idx.co.id as well as through the official website of food and beverage manufacturing companies listed on the IDX for the 2017-2021 period.

C. Variable Operational Definition

The variables in this study consist of independent variables and dependent variables. The variables involved in this study include:

Dependent Variable

According to (Sugiyono, 2017) the dependent variable that will be affected or which is the result of the independent variable. In this study the dependent variable used is earnings management.

Earning Management

Measurements made can be proxied using the discretionary accrual (DA) method which is measured using a modified (Jones, 1991) model (Modified Jones model), namely:

1. Calculating total assets with the formula:

$$TAC=(NI-CFO\ it)$$

Information :
TAC = total accruals i in year t
NI = net profit i in year t
CFO it = cash from i in year t

2. Do a search for the regression coefficient using the formula:

$$TAC/(At-1)=\beta1(1/(At-1))+\beta2(\Delta REVit/(At-1))+\beta3\ (PPEit/(At-1))+\varepsilon$$

Information :
At-1 = Total assets of company i in period t-1 (beginning of the year)
$\Delta REV\ it$ = Revenue of company i in period t minus revenue in period t-1
PPE it = gross tangible fixed assets of company i in period t

3. Perform non-discretionary accrual calculations with the formula:

$$NDA=\beta1(1/(At-1))+\beta2(\Delta REVit-\Delta RECit/(At-1)+\beta3(PPEit/(At-1))$$

Information :
$\Delta REVit$ = revenue of company i in period t minus revenue in period t-1
$\Delta RECit$ = receivables of company i in period t minus receivables in period t-1
PPEit = gross tangible fixed assets of company i in period t
ß1, ß2, ß3 = coefficients obtained from the regression equation

4. Perform discretionary accrual calculations using the formula:

$$DA=(TAC/(At-1))-NDA$$

Information :
DA = company i discretionary accruals in period t
NDA = non-accrual discretionary company i in period t
TAC = total accruals of company i in period t
At – 1 : total assets of company i in period t-1 (beginning of the year)

D. Independent Variable
1. Tax Planning

Tax planning (tax planning) is the initial stage to carry out a systematic analysis of various alternative tax treatments with the aim of achieving fulfillment of minimum tax obligations. According to (Wild, 2005) the measurement of tax planning uses the Tax Retention Rate Formula. The formula is as follows:

$$TRR\ it=(Net\ Income\ it)/(Pretax\ Income\ (EBIT)it)$$

Information :

TRR it = Tax Retention Rate of company i in year t
Net Income it = net profit of company i in year t
Pretax Income (EBIT) it = Profit before tax i in year t

2. Deferred Tax Expense

According to (Pratita et al., 2017) states that deferred tax expense is an expense arising from temporary differences between accounting profits prepared based on Financial Accounting Standards (SAK) and fiscal profits prepared based on tax regulations.

BPT it=(Deferred Tax Expense Company i in year t)/(Total assets at the end of year t-1)

3. Managerial Skills

Managerial ability is the relative level of efficiency of a company in managing resource and operational factors so that output (sales) increases. There are 2 factors that become input in calculating managerial skills, namely the resource factor (total assets and number of employees) and operational factors (Days Cost of Good Sold in Inventory and Days Sales Outstanding).

4. Total manpower

The number of workers is a factor of a resource that plays a role in producing a sale. In assessing certain sales, if the number of workers to produce a sale is getting smaller, the company is more efficient.

5. Total Assets

Total assets are one of the input calculations because assets are a very important resource in producing a sale (output).

6. Days Cost of Good Sold in Inventory (DSI)

DSI measures the number of company inventory turnover in days. If less time (days) is used to make inventory turnover, the company is more efficient. Managers who have the skills are expected to be able to take the necessary steps to minimize the amount of this DSI.

DSI=365/(COGS/Inventory)
Information :
COGS = Total cost of goods sold
Inventory = Inventory

7. DSO (Days Sales Outstanding)

DSO is used to measure the time needed by a company to be able to obtain cash after making a sale. Companies that can get a cash back, the faster the management of the company by competent managers is shown. The formula for calculating DSO is as follows:

DSO=receivable/((Sales/365))
Information :
Receivable = Accounts Receivable
Sales = Credit net sales
The input above will form an equation, namely:
Total inputs = Total assets + total workforce + DSI + DSO

8. Managerial ownership

The managerial ownership ratio in this study is expressed through a comparison between the shares owned by management and the total outstanding shares (Sugiarti & Widyawati, 2020). Managerial ownership is used in this study because of differences in interests between management and shareholders which will result in management being able to behave fraudulently which can harm shareholders. Therefore a mechanism is needed to control and align the different interests between management and shareholders so that management can be motivated to increase the value of the company.

Managerial Ownership=(∑Share owned by management)/(∑Share outstanding) x 100%

III. RESULTS AND DISCUSSION

A. Descriptive statistics

Descriptive statistics can provide an overview or description in a data obtained from the average value (mean), standard deviation, variance, maximum and minimum (Ghozali, 2016).

Table 1. Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Planning	85	-1.44	4.76	.7808	.57709
Deferred Tax Burden	85	.00	.20	.0342	.03677
Managerial Skills	85	25.39	32.82	28.6912	1.61446
Managerial Ownership	85	.00	.25	.0205	.05910
Profit Management	85	-.61	.66	-.0664	.13753
Valid N (listwise)	85				

Based on the statistical descriptive table, it can be described that the tax planner obtains a sample size of 85 and obtains the lowest value of -1.44 and the highest value of 4.76 with an average value of 0.7808 and a standard deviation of 0.57709.

For the deferred tax expense variable, the number of samples is 85 and the lowest value is 0.00 and the highest value is 0.20 with an average value of 0.0342 and a standard deviation of 0.003677.

For the managerial skills variable, the sample size is 85 and the lowest value is 25.39 and the highest value is 32.82 with an average value of 28.6912 and a standard deviation of 1.61446.

For the managerial ownership variable, the number of samples is 85 and the lowest value is 0.00 and the highest value is 0.25 with an average value of 0.0205 and a standard deviation of 0.05910.

For the earnings management variable, the sample size is 85 and the lowest value is -0.61 and the highest value is 0.66 with an average value of -0.0664 and a standard deviation of 0.13753.

B. Significant test (F test / Simultaneous test)

The F test (Simultaneous Test) is to test how the independent variables jointly influence the dependent variable. In testing the hypothesis, the first step that must be taken by researchers is to know the basis for making decisions in the F Test (simultaneous). There are methods used in the basis of decision making, namely as follows:

5. If the Significance value (Sig.), <0.05 then there is a joint effect of the independent variable (X) on the dependent variable (Y). Hypothesis accepted.
6. If the Significance value (Sig.), > 0.05 then there is no joint effect of the independent variable (X) on the dependent variable (Y). The hypothesis is rejected.

Table 2 : Anova

ANOVAa

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.230	4	.057	3.384	.013b
	Residual	1.359	80	.017		
	Total	1.589	84			

Based on the results of the F test table, it can be seen that the simultaneous test results (Test F) have a significance value of 0.013 so that it is less than 0.05 (5%) (0.013 <0.05) thus indicating that simultaneously tax planning, deferred tax expense, managerial skills and managerial ownership affects earnings management.

C. Significant test (t test / Partial test)

According to Astuti, et al (2017) Partial test (t test) is carried out to find out whether the independent variables partially have an influence on the dependent variable. This test is carried out by determining the significant level (α) which is 5%.

Table 3. Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Tax Planning	.049	.025	.207	1.998	.049	.993	1.007
Deffered Tax Burden	1.146	.394	.306	2.910	.005	.965	1.037
Managerial Skills	-.007	.009	-.077	-.707	.482	.897	1.115
Managerial Ownership	.298	.250	.128	1.190	.237	.924	1.082

Based on table 3 the results of the t test on the independent variables can be explained in detail as follows:
1. Tax Planning Against Profit Management
The tax planning variable has a significance value of 0.049 so that it is less than 0.05 (5%) (0.049 <0.05) thus indicating that partially the tax planning variable has an effect on earnings management, due to carrying out a very good tax planning so that tax benefits can be obtained . Excellent tax planning can reduce the company's net profit. There is an influence between tax planning and earnings management, that is, the higher the tax planning, the greater the chance for a company to do earnings management. One way to do tax planning is to regulate reported profits so that there will be indications of earnings management practices. Therefore, in order to avoid these things, a company will carry out an earnings management so that the profits reported to the fiscal will be smaller so that the tax burden that will be borne by the company can be reduced. These results support research (Wijaya & Martani, 2011) suggesting that tax planning greatly influences earnings management practices. This can be reinforced by research (Sumomba & Hutomo, 2012) which shows that tax planning has a significant influence on earnings management, the better the tax planning, the greater the company's earnings management. Thus, the existence of a tax plan can affect the company in the implementation of earnings management because implementing tax planning can reduce the level of profit in the company.
2. Deferred Tax Expense on Profit Management

The size variable of deferred tax expense has a significance value of 0.005 so it is less than 0.05 (5%) (0.005 <0.05) thus indicating that partially the variable of deferred tax expense has an effect on earnings management. Because deferred tax expense is a tax whose recognition can be deferred or postponed, because as an anticipation that can be made of the consequences of income tax debt, which appear in the present or in the future (Prasetyo et al., 2019). The higher the percentage of a deferred tax expense to the total of a company tax burden, it can indicate a wider accounting standard. It is often assumed that managers tend to report higher accounting profits but never report higher taxes. A large burden will make the company's profit decrease, so that the company has the opportunity to obtain greater profits in the future by reducing the taxes that will be paid. If management's motivation to carry out an earnings management is greater, it can cause a high difference between accounting and taxation profits. So that deferred tax expense can be used as an indicator in earnings management (Sylvia et al., 2016). These results support research (Lestari & Puji, 2018), (Negara & Suputra, 2017) proving that deferred tax expense has an influence on earnings management to avoid losses in the company.

3. Managerial Proficiency Against Earnings Management

   The managerial ability variable has a significance value of 0.482 so that it is more than 0.05 (5%) (0.482 > 0.05) thus indicating that partially the managerial ability variable has no effect on earnings management. Because a capable manager is a success factor for the company. A competent manager does not need earnings management to improve earnings. Capable managers are able to make the right economic decisions and are able to achieve a high level of efficiency in managing company resources because they have experience and a fairly high level of education. By achieving a high level of efficiency, the company will achieve optimal profit. Capable managers will consider continuing to improve the quality of their performance by using resources appropriately so that they will add added value to the company, rather than having to carry out earnings management which risks failing to maintain public and stakeholder trust. These results support research conducted by (Permatasari & Wulandari, 2021), (Septiana, 2012) suggests that managerial ability has no effect on earnings management.

4. Managerial Ownership of Earnings Management

   The managerial ownership variable has a significance value of 0.237 so that it is more than 0.05 (5%) (0.237 > 0.05) thus indicating that partially the managerial ownership variable has no effect on earnings management. Because the increase or decrease in the value of managerial ownership does not affect changes in earnings management. Based on the results of the descriptive statistical analysis, it shows that the average value of managerial ownership is low or share ownership by management tends to be small, namely 2.05%. So that managerial ownership cannot be used as a unifying interest between management and investors because the management who also acts as an investor has not been able to control the company according to his wishes as an investor. These results support research conducted by (Septiana, 2012) showing that managerial ownership has no effect on earnings management.

5. Tax Planning, Deferred Tax Burden, Managerial Skills and Managerial Ownership Effect Simultaneously on Earnings Management

   The variables of Tax Planning, Deferred Tax Expense, Managerial Ability and Managerial Ownership have a significance value of 0.013 so that it is less than 0.05 (5%) (0.013 <0.05) thus indicating that simultaneously the variables of Tax Planning, Deferred Tax Expense, Managerial Ability and Ownership Managerial influence on earnings management.

IV. CONCLUSION

1. Tax planning has an effect on earnings management, due to carrying out a very good tax planning so that tax benefits can be obtained. Excellent tax planning can reduce the company's net profit. There is an influence between tax planning and earnings management, that is, the higher the tax planning, the greater the chance for a company to do earnings management

2. Deferred tax expense affects earnings management, the higher the percentage of a deferred tax expense to the total corporate tax burden, it can indicate a wider accounting standard. It is often assumed that managers tend to report higher accounting profits but never report higher taxes. A large burden will make the company's profit decrease, so that the company has the opportunity to obtain greater profits in the future by reducing the tax that will be paid.

3. Managerial skills have no effect on earnings management. Because a capable manager is a success factor for the company. A competent manager does not need earnings management to improve earnings. By achieving a high level of efficiency, the company will achieve optimal profit. Capable managers will consider continuing to improve the quality of their performance by using resources appropriately so that they will add

added value to the company, rather than having to carry out earnings management which risks failing to maintain public and stakeholder trust.

4. Managerial ownership has no effect on earnings management. Because the increase or decrease in the value of managerial ownership does not affect changes in earnings management. Based on the results of descriptive statistical analysis, it shows that the average value of managerial ownership is low or the management's share ownership tends to be small

5. Tax Planning, Deferred Tax Expenses, Managerial Skills and Managerial Ownership have a significance value of 0.013 so that it is less than 0.05 (5%) (0.013 <0.05) thus indicating that simultaneously the variables of Tax Planning, Deferred Tax Expenses, Managerial Skills and Managerial Ownership affects earnings management.

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The Influence of Tax Planning, Deferred Tax Expenses, Managerial Proficiency, and Managerial Ownership on Earnings Management (Case Study in The Food Sector IDX 2017-2021)
Ariyani, Aisyah Milafatma Noeraini

Page | 1070

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The Influence of Tax Planning, Deferred Tax Expenses, Managerial Proficiency, and Managerial Ownership on Earnings Management (Case Study in The Food Sector IDX 2017-2021)
Ariyani, Aisyah Milafatma Noeraini

Page | 1071

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022

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ABSTRACT

Purpose: Profit management is an attempt by management to manipulate information so that it does not reflect reality. The purpose of earnings management is to provide information in the form of financial statements that have been manipulated through various efforts to bring produce the financial statements desired by management, in order to provide stakeholders and potential investors with an overview of management's performance in terms of generating company profits. Several factors are considered to influence profit management, namely managerial ownership, independent commissioners and tax planning. The purpose of this research is to analyse the influence between managerial ownership, independent commissioners and tax planning on profit management in manufacturing companies listed on the Indonesia Stock Exchange in 2020-2022.

Design/methodology/approach: The type of research used is quantitative research, with a sample of manufacturing companies listed on the Indonesia Stock Exchange in 2020-2022. The sampling technique used was purposive sampling technique.

Research limitations/implications: The results showed that managerial ownership variable had a negative effect on profit management, independent commissioner variable had no significant effect on profit management, tax planning variable had a positive effect on profit management, and managerial ownership, independent commissioners and tax planning simultaneously affected profit management.

Paper type: Research paper

Keyword: *Managerial Ownership, Independent Commisioner, Tax Planning, Profit Management*

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I. INTRODUCTION

A. Theory Overview
1. Agency Theory

Agency theory is defined as a principal-agent relationship in which one or more principals (owners) hire another person (agent) to provide services for the benefit of the owners by delegating some decision-making authority (Jensen & Meckling, 1976). The agent referred to here is the party who carries out operational activities, often referred to as manager, while the principal is one or more owners or shareholders. Agency theory assumes that each individual has their own interests based on the motivation to fulfil their well-being (Negara & Saputra, 2017). Agency theory arises due to the divergence of interests between the management and the shareholders.

The concept of agency theory, explains that the relationship between managers and shareholders is an agency relationship between principal and agent. The agent is appointed by the principal to carry out operational activities. The shareholders as the principal party and also the ultimate power owners in the company determine the direction and objectives of the company through the General Meeting of Shareholders (RUPS). Meanwhile, the manager as the agent has the power to manage the operational activities of the company. It can be concluded that each party has different interests, which explains the existence of the agency theory concept where there is a conflict between the interests of the agent and the principal.

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1072

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When manager has shares in the company, the manager will tend to have the same interests as other shareholders (Pramesti & Budiasih, 2017). With the manager's efforts to hold shares in the company, it is expected that the manager will tend to suppress their desires that are contrary to the interest of the shareholder, thus reducing the potential agency conflicts that may arise due to these different interests.

In the concept of agency theory, conflicts arise because of the different interests of each party. In order to prevent these conflicts from arising in the future, it is necessary to have independent commissioners who are not affiliated with any party to participate in overseeing the operational activities of the company conducted by the manager as the principal party.

The concept of profit management is influenced by tax planning which is conceptually explained by agency theory, namely the difference in interests between each principal and agent, and the factors that influence it are the existence of information asymmetry. Management seeks to present good performance to shareholders to attract their interest in investing in the company. Information asymmetry is a situation where the agent has information that is the principal does not have (N.K.L. Lestari & Supadmi, 2017). Extensive information about the state of the company is possessed by the agent, while minimal information is received by the principal, which referred to as information asymmetry (Pramesti & Budiasih, 2017). With the presence of asymmetric information and conflicting interests in agency theory, tax planning opens up opportunities for managers as the agent to engage in profit management.

2. Managerial Ownership

Managerial ownership refers to the extent of shares held by managers (Pramesti & Budiasih, 2017). Managerial ownership is a condition in which the manager owns a portion of the company's shares, or in other words, the manager is also involved as a shareholder of the company (Tarigan & Christiawan, 2016). The extent of the composition of managers shareholdings can be seen in the notes to the company's financial statements. With the appointment of managers as part of the shareholders, managers are expected to oversee the policies implemented by the company.

In the concept of agency theory, it is explained that the relationship between managers and shareholders is an agency relationship between the principal and the agent. The agent is appointed by the principal as the party who performs operational activities. The shareholders as the principal party and also the ultimate power holders in the company determine the direction and objectives of the company through the General Meeting of Shareholders (RUPS). Meanwhile, the manager as the agent has the authority to manage the operational activities of the company. It can be concluded that each party has different interests, which eplains the existence of the relationship concept of agency theory where there is a conflict between the interests of the agent and the principal.

If the manager holds shares in the company, the manager will tend to have the same interests as other shareholders (Pramesti & Budiasih, 2017). With the manager's efforts to hold shares in the company, it is expected that the manager will tend to suppress their desires that are contrary to the interests of the shareholders, thus reducing the potential agency conflicts that may arise due to these different interests.

3. Independent Commisioner

According to the National Committee on Governance Policy (2006) in the general guidelines of Good Corporate Governance, an independent commissioner is a commissioner who is not affiliated with any party. Affiliated parties can be those who still have relationships, whether business or family, with shareholders, members of the board of directors, and other members of the board of commissioners.

The members of the board of commissioners are appointed by the General Meeting of Shareholders (RUPS), and the evaluation of potential members of the board of commissioners is carried out by the National Committee and Remuneration before the RUPS, and must also take into account the opinions of minority shareholders. The number of independent commissioners is adjusted to the complexity of the company, taking into account the effectiveness of decision-making. The number of independent commissioners must also ensure that supervision is carried out in accordance with regulations. Members of the board of commissioners are dismissed on reasonable grounds and are given the opportunity to defend themselves.

In the concept of agency theory, conflicts arise because of the different interests of the parties. In order to prevent these conflicts from arising in the future, it is necessary to have an independent board of commissioners as a party that is not affiliated with any party to participate in the supervision of the operational activities of the company conducted by the manager as the principal party.

4. Tax Planning

Tax planning is the process of organizing the taxpayer's business in such a way that its tax liabilities, including income tax and other taxes, are minimised as long as it does not violate legal provisions (Pohan, 2013). Tax planning is an effort by management to minimise the taxes payable by the company, by exploiting various legal loopholes.

The concept of profit management is influenced by tax planning which is conceptually explained by agency theory, namely the difference in interests between each principal and agent, with factors influencing the existence of information asymmetry. Management seeks to present good performance to shareholders to attract their interest in investing in the company. Information asymmetry is a situation where the agent has information that the principal does not have (N.K.L. Lestari & Supadmi, 2017). Extensive information about the state of the company is possessed by the agent, while minimal information is received by the principal, referred to as information asymmetry (Pramesti & Budiasih, 2017). With the presence of asymmetric information and conflicting interests in agency theory, tax planning opens up opportunities for managers as agents to engage in profit management.

5. Profit management

Profit management is an attemp to conceal, alter, or even delay financial information. Management engages in profit management to create wealth for shareholders. Profit management is carried out in financial reports using accrual components, referred to as accrual because it is in line with expectations for carrying out transactions in the preparation of financial statements (Sulistyanto, 2008).

In the concept of agency theory, profit management arises due to the different interests of each party. Profit management is carried out with the aim of manipulating financial reports to make profits appear larger than they should be. This effort is made by management to give stakeholders the impression that management performance is optimal, and also to attract investors. One of the factors influencing profit management is tax planning, which occurs when management exploits various loopholes to reduce the amount of tax that the company has to pay, thereby reducing the costs that the company has to incur, which are then expected to be used for other company interests.

II. METHODS

A. Research Approach

The type of research used in this study is quantitative research. Quantitative research is used to test a theory, present a fact or describe statistics, to show the relationship between variables. (Firdaus & Zamzam, 2018).

B. Population, Sample and Sampling Technique

The sampling technique used is purposive sampling. Purposive sampling is a sampling technique based on specific considerations to ensure that the selected samples are appropriate. The sampling is based on specific characteristics or attributes that are expected to have existing relationships in the known population (Mustafidah & Suwarsito, 2020). The criteria for companies to be sampled in this study are as follows:
3. Manufacturing companies listed on the Indonesia Stock Exchange during the period 2020-2022.
4. Manufacturing companies that have not been delisted during the period 2020-2022.
5. Manufacturing companies that were not relisted during the period 2020-2022.
6. Manufacturing companies that reported audited annual financial statements on the official website of the Indonesia Stock Exchange www.idx.co.id during the period 2020-2022.
7. Manufacturing companies that made profits during the period 2020-2022.
8. Manufacturing companies that used financial statements with the Indonesian Rupiah exchange rate during the period 2020-2022.

C. Operational Definition and Variable Measurement

The variables used in this study are divided into independent variables and dependent variables. The variables related to this study include:

1. Managerial Ownership (X1)

Managerial ownership as an independent variable (X1) is used to determine the percentage of managerial ownership in a company, with the aim of reducing profit management. Managerial ownership is measured by the ratio of the number of shares owned by management to the total shares outstanding, which refers to the journal (Septriyuni, 2021). (Septriyuni, 2021) using the following formula:

$$Managerial\ ownership = \frac{The\ number\ of\ shares\ held\ by\ the\ managerial\ party}{Outstanding\ shares}$$

2. Independent Commisioner (X2)

Independent commissioners as an independent variable (X2) is used to determine the size of the board of commissioners who are independent and do not come from affiliated parties. Independent commissioners are

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1074

calculated using the ratio of the number of independent commissioners to the number of members of the board of commissioners, which refers to the journal (Ariska et al., 2016) using the following formula:

$$Independent\ commisioners = \frac{\Sigma\ Independent\ commisioners}{\Sigma\ Member\ of\ the\ board\ of\ Commissioners}\ x\ 100\%$$

3. Tax Planning (X3)

Tax planning as an independent variable (X3) is used to determine the effectiveness of a company's tax management through the current year's financial statements. Tax planning is calculated using the tax retention rate by using the ratio of net income to profit before tax, which is referred to the journal (Sutrisno et al., 2018). (Sutrisno et al., 2018) using the following formula:

$$Tax\ planning = \frac{Net\ profit}{Profit\ before\ tax}$$

4. Profit management (Y1)

Profit management as a dependent variable (Y1) is used to determine the efforts made by management to manipulate financial statements to make profits appear higher than they should be. Profit management is measured by the ratio of working capital accruals (cash flow from operating activities) to sales, which refers to the journal (Septriyuni, 2021). (Septriyuni, 2021) using the following formula:

$$Profit\ management = \frac{Working\ capital\ accrual}{Sales}$$

D. Data Analysis Technique

Data analysis techniques are techniques used to find answers to the problems discussed in the study. This research using descriptive statistical data analysis techniques, multiple linear regression, classical assumption tests, and hypothesis testing.

1. Descriptive Statistical Analysis

Descriptive statistics are a series of numbers that provide an overview of the data presented in the form of tables, graphs, histograms, frequency polygons, ogives, measures of rank (median, quartiles, deciles, and percentiles), measures of central symptoms (mean, mean measure, harmonic mean, and mode), standard deviation, standard number, normal curve, correlation, and linear regression.

2. Multiple Linear Regression Analysis

Multiple linear regression analysis is used to estimate the effect of two or more predictor variables on a criterion variable to prove whether there is a functional relationship between two or more independent variables and the dependent variable. (Usman & Akbar, 2019).

3. Classical Assumption Test

The classical assumption test is performed to ensure that the regression equation tested and obtained is accurate in estimation, unbiased and consistent. The classical assumption test is performed prior to hypothesis testing, to determine whether the regression model used is free of assumption bias. The classical assumption tests used in this study are Normality Test, Multicollinearity Test, Autocorrelation Test, and Heteroscedasticity Test.

4. Hypothesis Test

Hypothesis testing is used to decide whether the hypothesis proposed in the study is accepted or rejected. The hypothesis tests performed in this research include partial tests (t-tests) and simultaneous tests (f-tests).

III. RESULTS AND DISCUSSION

A. Classical Assumption Test
1. Normality Test

The normality test aims to measure whether independent variables and the dependent variable in the regression model have a normal or near normal distribution. If this assumption is violated, the statistical test is invalid.

A variable is said to be normal if the image of the distribution of the data points is spread around the diagonal line, and the distribution of the data points is in the direction of following the diagonal line. (Ghozali, 2016). There

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1075

are two ways to determine whether the residuals are normally distributed or not, namely by graph analysis and statistical analysis. In this study, the normality test used P-Plot.
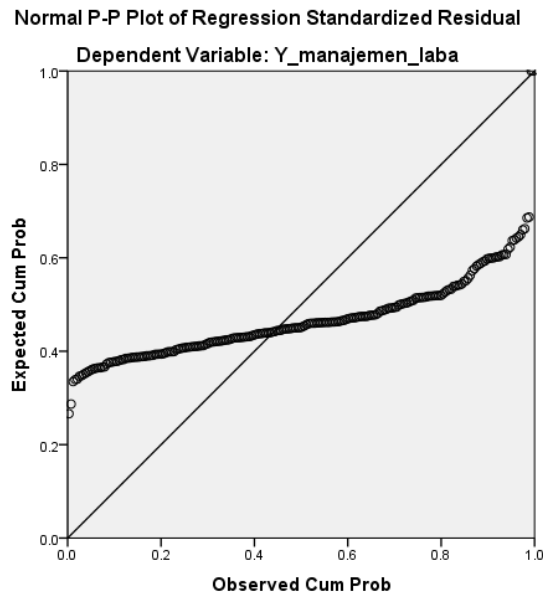
Figure 1. P-Plot Normality Test Results

Figure 5.1 shows that the research data has a normal distribution as it spreads around the diagonal line and the distribution does not move away from the diagonal line. This supports a normal distribution pattern, so the research can be continue.

2. Multicollinearity Test

The multicolonierity test aims to test whether the regression model finds a correlation between independent variables. To test for the presence or absence of multicollinearity, the value of the variance inflation factor (VIF) of each independent variable can be used. If the tolerance value ≥ 0.10 and the VIF value ≤ 10, it can be concluded that the regression model is free from multicollinearity. The results of the multicollinearity test are shown in table 5.1 below

Tabel 1. Multicollinearity test results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.524	.223		2.349	.020		
	X1_managerial_ownership	-.050	.078	-.043	-.637	.525	.999	1.001
	X2_independent_commisioner	.032	.162	.013	.196	.845	.999	1.001
	X3_tax_planning	-.073	.244	-.020	-.298	.766	1.000	1.000

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1076

a. Dependent Variable: Y_profit management

Based on table 5.1 above, it can be seen that the multicollinearity test results show a tolerance value > 0.10 for all independent variables, and a VIF value < 10 for all variables, so the independent variables in the regression equation model do not have multicollinearity problems, so they can be used in research. And the tolerance value is more than 0.1, so there is no problem and the data can be used for research.

3. Autocorrelation Test

The autocorrelation test aims to determine whether there is a correlation between confounding variables in a given period and previous variables. Autocorrelation can be detected using the Durbin Watson (D.W) value compared to the D-W table (dl and du), the detection of the presence or absence of autocorrelation is done by looking:
d. D-W less than 4 - dl < d < 4 then there is positive autocorrelation.
e. D-W number above +2 (DW> +2) then there is negative autocorrelation.
f. The D-W number is between dl < dw < 4 - dl then there is no autocorrelation.
The results of the autocorrelation test in this study are shown in table 5.2 as follows:

Tabel 2. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.049a	.002	-.011	.68962	.615

a. Predictors: (Constant), X3_tax planning, X2_independent commissioner, X1_managerial ownership
b. Dependent Variable: Y_profit management

Based on the display in table 5.2, the Durbin-Watson value is 2.006, which is between dl < dw < 4 - dl. Thus the regression model to be used does not have an autocorrelation problem.

4. Uji Heterokedastisitas

The heroscedasticity test is performed to test the difference in residual variance between one observation period and another. The presence or absence of heteroscedasticity can be seen by the presence or absence of certain patterns on the scatter plot. If there is a certain pattern, it indicates that heteroscedasticity has occurred. However, if there is no clear pattern and the dots are scattered above and below the number 0 on the Y axis, then there is no heteroscedasticity. (Ghozali, 2016). In this study, heteroscedasticity was tested using the Glejser method. The results of the heteroscedasticity are shown in Figure 5.2 below.

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1077
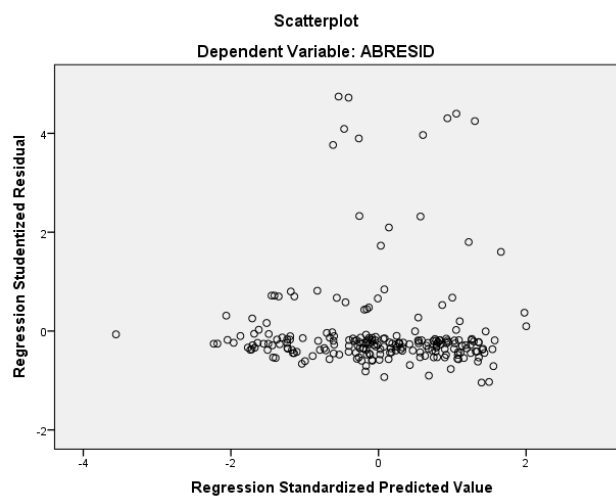
Gambar 2 Heteroscedasticity test results

The scatterplot above shows that the points are randomly distributed both above and below the number 0 on the Y axis. From this it can be concluded that there is no heteroscedasticity in the regression model, so the regression model is suitable for predicting the relationship between managerial ownership, independent commissioners, tax planning and profit management.

As well as using the scatterplot, the heteroscedasticity test can also use the Glejser method to ensure and confirm that the data are suitable to proceed to the next stage.

Tabel 3. Heteroscedasticity Test Results glejser method

Coefficients[a]

	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.644	.162		3.983	.000
	X1_managerial_ownership	-.090	.057	-.107	-1.591	.113
	X2_commissioner_independent	-.061	.117	-.035	-.519	.604
	X3_tax_planning	-.079	.177	-.030	-.448	.655

a. Dependent Variable: ABRESID

Based on the test results using the Glesjer method in table 5.3, it can be seen that the value of the three independent variables has a significance value of more than 0.05. Therefore, it can be concluded that there is no heteroscedasticity problem in this study and the data is suitable for research.

5. Multiple Linear Regression Analysis Results

Multiple linear regression analysis is a linear relationship between the independent variables of managerial ownership, independent commissioners, tax planning, and the dependent variable profit management. This analysis aims to determine the relationship between each independent variable is positive or negative and to project the value of the dependent variable if the value of the independent variable increases or decreases. Data management using SPSS 21, produced the following results:

Tabel 4. Multiple Linear Regression Analysis Results

Coefficients[a]

	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.524	.223		2.349	.020
	X1_managerial_ownership	-.050	.078	-.043	-.637	.525

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1078

X2_independent_commisioner	*.032*	*.162*	*.013*	*.196*	*.845*
X3_tax_planning	*-.073*	*.244*	*-.020*	*-.298*	*.766*

a. Dependent Variable: Y_profit management

Based on the results of the multiple linear analysis in table 5.4, it can be seen that the multiple linear equation is as follows:

Y = 0.524 -0.50 X1 + 0 .032 X2-0.073 X3-e

From the above regression equation, the conclusion of this study can be drawn as follows:

g. The constant value (a) of 0.524 indicates that profit management in manufacturing companies listed on the Indonesia Stock Exchange (Y) will experience an additional profit of 0.524 if the managerial ownership variable (X1), independent commissioners (X2), tax planning (X3), is constant or 0 (zero).

h. The regression coefficient value of the managerial ownership variable (X1) is -0.050 and has a negative sign, meaning that if (X1) decreases by one year, the additional profit is likely to decrease by -0.050 with the assumption that the X2, and X3 variables are constant.

i. The regression coefficient value of the independent commissioner variable (X2) is 0.032 and has a positive sign, which means that if (X2) increases by one year, the company's profit will increase by 0.032 assuming variables X1, X3 are constant.

j. The regression coefficient value of the tax planning variable (X3) is -0.073 and has a negative sign, which means that if (X3) decreases by one year, the addition of the company's laboratory will decrease by -0.073 assuming that the variables X1, X2 are constant.

6. Hypothesis Test
a. The t-test

The t-test aims to test whether each independent variable has a significant effect on the dependent variable sometimes with a significance level of less than <0.05.

Tabel 5. Partial t-test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	*Std. Error*	*Beta*	*t*	*Sig.*
1	*(Constant)*	*1.919*	*.137*		*14.041*	*.000*
	X1	*-.300*	*.058*	*-.282*	*-5.172*	*.000*
	X2	*-.230*	*.125*	*-.099*	*-1.837*	*.068*
	X3	*-1.392*	*.161*	*-.473*	*-8.664*	*.000*

a. Dependent Variable: Y_profit management

The results of the t-test results based on table 4.5 are as follows:

9. The significance of managerial ownership (X1) of 0.00 the value obtained is less than <0.05, which means that managerial ownership has a partially significant effect on profit management.

10. The significance of the independent commissioner of 0.06> 0.05 means that the independent commissioner has a partially insignificant effect on profit management.

11. The significance of tax planning is 0.00 <0.05, which means that it has a partially significant effect on profit management.

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1079

b. F-test

The F-test is used to test whether all independent variables have a simultaneous effect on the dependent variable. The test is done using the F-test with a significance level used of less than <0.05. Below is a table of F-test results using SPSS 21:

Tabel 6. Hypothesis Test Results F Test

$ANOVA^a$

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.752	3	13.917	48.798	$.000^b$
	Residual	62.174	218	.285		
	Total	103.925	221			

a. Dependent Variable: Y_profit_management
b. Predictors: (Constant), X3, X1, X2

Based on the results of the F-test in table 4.8, it can be seen that the significance value of F is 0.000 <0.05. It can be concluded that all independent variables (managerial ownership, independent commissioners, tax planning) simultaneously (together) affect the dependent variable profit management.

B. Result Interpretation and Discussion
1. The Effect of Managerial Ownership Variables on Profit management

The results of this study indicate that the variable of managerial ownership has an effect on profit management. This can be seen from the t test results of 0.00 <0.05, which means that managerial ownership has a significant effect on profit management, and the t value shows - 5.172, which means that managerial ownership has a negative effect on profit management, where the higher the managerial ownership, the lower the profit management, otherwise if the lower the managerial ownership, the higher the profit management.

This is in line with research conducted by Agusto & Sandra (2021) there is an influence between managerial ownership on profit management, where there are interests between company management as decision makers and shareholders as owners of the company. Then the average number of shares owned by the manager shows a small amount and this illustrates the high risk of the manager as a shareholder limited to the number of shares owned. In the worst case, if the company goes bankrupt, the manager will only bear the risk of the number of shares he owns. (Kusumaningtyas, 2015). When managers own a smaller proportion of the company's shares, they have a greater incentive to pursue self-interest benefits and less incentive to maximize profit management (Sulong & Nor, 2008).

2. The Effect of Independent Commissioner Variables on Profit management

The independent commissioner variable has a significance level of 0.06 with a significance value greater than 0.05. This proves that independent commissioners do not have a significant effect on profit management. The result of the t-test is -1.837 indicating that the higher the activity of independent commissioners, the higher the profit management.

This is in line with the research conducted by Prasanti & Jannah (2022) on the lack of effect of the size of the independent board of commissioners on profit management practices. These findings are also consistent with research conducted by Nanda & Somantri (2020) on the lack of influence of independent commissioners on profit management. This proves that the independent board of commissioners has little effect on the decisions made by the company, especially regarding profit management. The reason may be that the independent commissioners appointed by the company do not have sufficient skills and abilities, and are only limited to fulfilling the company's obligation to comply with the rules set by the Indonesia Stock Exchange.

3. The Effect of Tax Planning Variables on Profit management

Tax planning has a significance level of 0.00 with a significance value below 0.05. This indicates that the variable tax planning has a significant effect on the dependent variable, profit management, because the

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1080

significance level of the variable tax planning is below the significant value of 0.05. This indicates that hypothesis 3 is accepted or the null hypothesis is rejected. The coefficient value of -8.664 indicates that the higher the tax planning activities carried out by the company, the higher the profit obtained by the company.

This is consistent with the research conducted by Somodung (2019), which discusses the impact of tax planning on profit management practices. These findings are also consistent with the research conducted by D. S. A. Lestari et al. (2018) which discusses the impact of tax planning on profit management practices of manufacturing companies listed on the Indonesia Stock Exchange. This may be due to tax planning carried out by companies with the aim of saving on tax payments (D. S. A. Lestari et al., 2018). Profit management efforts may start with the implementation of tax planning by companies. In order to save on taxes to be paid, the likelihood of engaging in profit management practices increases.

4. The Effect of Managerial Ownership Variables, Independent Commissioners, Tax Planning on Profit management

The results of this study indicate that the variables of managerial ownership, independent commissioners, and tax planning have a simultaneous effect on profit management. This can be seen from the results of the F-test, where the significance value is $0.000 < 0.05$. Thus, when the variables of managerial ownership (X1), independent commissioners (X2), and tax planning (X3) are taken together, they have a significant effect on profit management.

IV. CONCLUSION

A. Conclusion
12. The test results for the first hypothesis (H1) indicate that managerial ownership affects profit management.
13. The test results for the second hypothesis (H2) indicate that independent commissioners have no effect on profit management.
14. The test results for the third hypothesis (H3) indicate that tax planning affects profit management.
15. The test results for the fourth hypothesis (H4) indicate that managerial ownership, independent commissioners and tax planning simultaneously affect profit management.

B. Suggestion
Considering the inclusion of other variables that have not been used in current and previous studies can contribute significantly to broadening and improving research in various areas. This approach can lead to a more comprehensive understanding of the subject matter and provide more nuanced insights.

C. Limitations
Some of the limitations that may occur during the preparation of the research, includes:
16. This research used too many samples, as it used all manufacturing companies listed on the Indonesia Stock Exchange.

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The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1081

The Effect of Managerial Ownership, Independent Commisioner and Tax Planning on Profit Management in Manufacturing Companies Listed on Indonesia Stock Exchange 2020-2022
Putri Zanufa Sari, Ajeng Mustika Suciati

Page | 1082

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency: Antecedents of Social Media and Strengthening Management

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ABSTRACT

Purpose: This research wants to test the influence of social media on strengthening management and business growth and examine the effect of strengthening management on business growth.

Design/methodology/approach: This research is included in the quantitative research category with an associative /explanatory approach and hypothesis testing. The unit of analysis in this research is micro and small business actors with a population of 186. The sample size in the research is 92. While Taking sample members from the population using a purposive sampling technique, the sample members are also referred to as respondents. The distribution of questionnaires was carried out over one month (1 June 2023 - 30 June 2023); 87 questionnaires were answered and filled in completely (94.57%); therefore, the data collected through this questionnaire was representative enough to represent the total population.

Findings: Testing with Path analysis shows that social media directly and significantly influences strengthening management and business growth with standardized coefficient values of 0.347 (sig. 0.039) and 0.324 (sig. 0.041), while strengthening management directly and significantly influences the growth of micro-businesses and small with a standardization coefficient value of 0.409 (sig. 0.46). The results of this test show that social media, which is used massively to explore market information and is carried out in a structured manner, will encourage optimal management development to provide an adequate contribution to strengthening management, which leads to the creation of sustainable creative behavior in managing micro and small businesses to be more effective and efficient, both in managing market access, implementing management functions, business processes, and business cycles, so as to leverage the growth of micro and small businesses for the better. Therefore, hypotheses H_1, H_2, and H_3 can be accepted because all the antecedents are tested to have a positive and significant influence with a significance figure below 0.05.

Paper type: Research paper

Keyword: *Management, Micro, Growth, Social, Business*

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I. INTRODUCTION

A. Background

Micro and small sector businesses in Indonesia are business sectors that continue to exist in any condition even though the national economy is experiencing turmoil in our society, such as the national economic crisis that occurred in 1998 and the Covid-19 pandemic years ago. The progress of micro and small businesses continues to make a real contribution to the domestic, regional, and national economy, even though business growth has slowed down from the beginning of 2022 to the first semester of 2023. The Covid-19 pandemic, declared endemic on July 25, 2023, is a windfall. Fresh for the revival of micro and small businesses in the country. Therefore, this momentum must be used as new enthusiasm to encourage micro and small business activities to return to normal as soon as conditions in 2019. Micro and small businesses whose growth is still slowing will undoubtedly harm economic conditions in the homeland and efforts to restore labor absorption after the Covid-19 pandemic. The

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1083

inability of micro and small business actors to adapt responsively and well to environmental changes is an obstacle that is hampering the recovery of their business activities while entering the new normal life *era* in business from the beginning of 2022 until now (Chang & Cheng, 2019), this situation is getting worse because their ability to utilize social media to manage management and business processes is still less than optimal so that efforts to restore business growth to the situation before the Covid 19 pandemic are still not being appropriately fulfilled (Yoshino & Taghizadeh-Hesary, 2019).

Business growth is an indicator often used to measure the performance of a business unit or organization's performance because business growth results from all activities that occur within the organization (Tseng et al., 2017). If an organization's business performance grows less, it is undoubtedly a sign that management functions and business processes are not running well (Prashar, 2019). Therefore, a careful and in-depth study of why the growth of micro and small businesses is slowing down in the city of Sidoarjo must immediately obtain a quick solution. Furthermore, it is appropriate so that micro and small businesses can revive as an alternative economic force for the residents of the city of Sidoarjo in reducing labor unemployment as well as being able to leverage business growth for the better (Ndiaye et al., 2018). Management as one of the conceptual capital for organizations has a very strategic value to bring the business to growth and development, but this depends on the ability of micro and small business actors to utilize the functional value of management to manage the business well and with strategic value (Rauch, Dallasega, & Matt, 2017). Good business growth requires strengthening management that is developed in a structured and sustainable manner to have adequate capabilities to manage management processes and business processes effectively so that they can adapt to changes in the environment that can hinder the continuity of the business. The growth of micro and small businesses, which is still slowing from quarter 3/2022 to quarter 2/2023, is a problem that needs to be resolved to date, as presented in Figure 1 below.
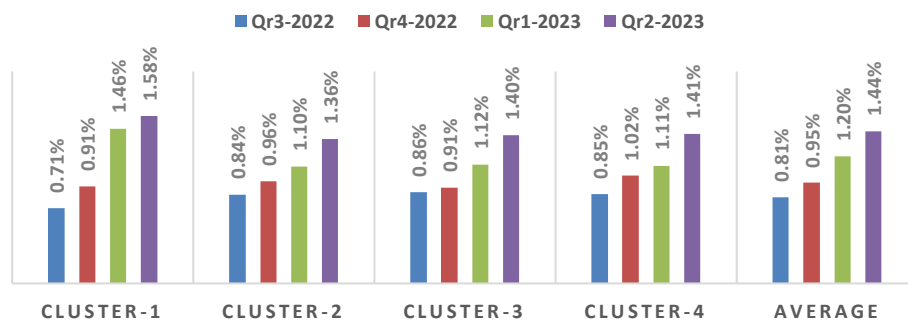
Figure 1: Business Growth Quarter 3/2022 - Quarter 2/2023

Source: Observation Growth of MSE Quarter 3/2022-Quarter 2/2023

Figure 1 shows that the average growth of micro and small businesses during quarter 3/2022 to quarter 2/2023 is around 0.81%-1.44%/quarter. Meanwhile, the growth of micro and small businesses in quarter 3/2022 was only around 0.71%-0.86%; in quarter 4/2022, growth was around 0.91%-1.02%; in quarter 1/2023 growth was around 1, 10%-1.46%, and in the second quarter of 2023 growth will be around 1.36%-1.58%. Entering the *new normal life era phase,* micro and small business actors are still in internal consolidation to strengthen and optimize their resources to achieve better business growth. However, the reality that occurs still needs to reflect more feasible business growth. Compared with business growth in 2019 before the COVID-19 pandemic, the growth rate was around 6.9%-13.6/year. This information shows that leveraging business growth requires serious efforts relevant to environmental changes. This phenomenon shows that the low growth of micro and small businesses has yet to find the right solution, so they have not been able to leverage business growth as expected. Therefore, optimizing the use of social media and strengthening management must be directed at efforts to improve management and business processes effectively in order to be able to leverage the growth of micro and small businesses for the better (Foghani et al., 2017).

After the Covid-19 pandemic, digital business is an inevitability in human life because society and businesses cannot let go of their dependence on digital platforms with various choices made possible through social media (Falahat, Ramayah, Soto-Acosta, & Lee, 2020). The ability of micro and small businesses to utilize social media to manage management and business processes wisely certainly provides added value to their business development. In contrast, if they are slow in optimizing the role of social media, it will certainly hamper their business performance (Hassan & Raziq, 2019). Optimizing the use of social media is also able to provide support for strengthening management for business actors because the added value obtained can be directed towards building new concepts in managing management and making management processes effective and efficient

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1084

(Klimczak, Machowiak, Staniec, & Shachmurove, 2017), by Therefore, efforts to optimally utilize the role of social media and strengthen management on an ongoing basis can certainly enable micro and small businesses to grow well (Hassan & Raziq, 2019).

The empirical description above shows that social media and strengthening management are relevant phenomena to explain how social media can provide objective support towards strengthening management through behavior creative and innovative in activity management and business processes in a structured manner to leverage business growth for the better (Wahyuni & Sara, 2020). Therefore, social media and strengthening management should be encouraged to improve internal abilities, application management, and management practical business frame, creating added *value* in higher quality services and products. **This research** aims to empirically prove the influence of: 1) social media on strengthening management, 2) social media on business growth, and 3) strengthening management for business growth. **Therefore,** this research will reveal that optimizing social media and strengthening management will open up space for creativity within applied management to manage a creative and innovative business to leverage the growth of micro and small businesses even more.

B. Literature review
1. Social media

Social media is a digital platform that facilitates users to communicate with each other, interact, and share content to support their social activities, whether business, science, sharing information, or other activities according to their references and interests (Mulolli et al., 2017). Environmental changes often occur unexpectedly, even creating chaos in the business. This is caused by management's inability to adapt and find fast and appropriate solutions (Verdolini, Bak, Ruet, & Venkatachalam, 2018). Social media that can be used wisely and responsive to organizational cultural values can certainly increase new knowledge, which helps develop effective management practices and business processes. Therefore, the commitment of business actors and responsiveness to social media will influence how fast the process changes to improve organizational management and business processes (Mohamad Radzi, Mohd Nor, & Mohezar Ali, 2017). Several research results examine digital media as an antecedent to explain its relationship with innovation, creativity, cultural change, and organizational performance (Ombi, Ambad, & Bujang, 2018; Rauch, Dallasega, & Matt, 2017). Attitude this view means that social media as a component of digital media has a more specific role in explaining its contribution to organizational performance, especially interactions between users in various content and networks so that it can be utilized according to the level of need. People who actively use social media are growing massively to meet their social and other needs, and quite a few have even used it for management and business process development needs to improve their performance (Indrawati, 2021). Social media has a massive role in the knowledge literacy process, which can be transformed towards changing the behavior of people who are social media activists into creative behavior and innovative behavior in management and business processes (Dolz, Iborra, & Safon 2019; Fitriati, Purwana, & Buchdadi, 2020; Goerzig & Bauernhansl, 2018). The development of digital business demands innovative services and products for its users because the sophistication of social media is able to provide various information, social communities, and business communities through networks and virtual content that can be accessed in an easy, fast, flexible, and cheap way without being hindered by space limitations and time. Therefore, environmental changes have initiated business actors to use digital platforms and social media to implement changes in management concepts and business processes to become more responsive to consumer behavior, which demands quality services and attractive products. Referring to this description, the following hypothesis can be put forward:

Hypothesis 1 (H_1). Social media has a significant influence on strengthening the management of micro and small businesses in Sidoarjo Regency.

Hypothesis 2 (H_2). Social media significantly influences the growth of micro and small businesses in Sidoarjo Regency.

2. Strengthening Management

Strengthening management is a planned and conscious activity to make changes in activities that can increase improvements in the application of management concepts to become more characterized, dignified, and effective in managing business processes by prioritizing the value of creativity and innovation, which can increase added value to services and products (Linder, 2019). Businesses that are developing through the use of digital platforms or other virtual media on a massive and sustainable basis can provide support in the process of strengthening management because the application of management concepts becomes more characteristic and effective in managing their business effectively and innovatively (Sawean & Ali, 2020). A caring attitude towards the issue of change, exploring digital-based management ideas, and providing adequate funds for the development of information technology are behaviors that can support the realization of a creative culture within the organization so that it can produce big ideas to create effective and efficient management processes (Falahat, Ramayah, Satooto

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1085

-Acosta, & Lee, 2020; Hassan & Raziq, 2019). Strengthening management requires changes in a person's attitudes and behavior in utilizing digital and other virtual platforms to fulfill management processes and their application to manage business processes better to leverage business growth (Krishnan & Scullion, 2017). Several research results that examine management competency as an antecedent to explain its relationship with organizational performance explicitly provide a positive contribution (Lin & Ho, 2019; Rauch, Dallasega, & Matt, 2017; Vásquez et al., 2019), but this study more specifically the value of competence, while the value of management should have characteristics related to ethics, culture, dignity, character and its usefulness in business processes. Therefore, the management strengthening program is an activity that is planned and full of awareness that management must have characteristics related to character, dignity, ethics, efficiency, and culture so that management has a unique conceptual structure for developing management and managing its business processes. Referring to this description, the following hypothesis can be put forward.

Hypothesis 3 (H_3). Strengthening management significantly affects micro and small business growth in Sidoarjo Regency.

3. Business Growth

Business growth is the final result of implementing management processes and business processes through the use of its resources in a wise, effective, and efficient manner. In contrast, the measurement of results can be determined through indicators of growth in market access, profit generation, revenue generation, order acquisition, and market growth (Prashar, 2019). Performance is the final result of various performances processes within an organization do not stand alone but are the result of a collaboration of all functions within it following the contribution of each function (Wahyuni & Sara, 2020). Therefore, optimizing the role of all functions within the organization is a wise action that all stakeholders must support to make a real contribution to the growth of their business. Social media is a digital platform element that has a significant role in the process of transforming management knowledge for business people so that it can provide benefits for the development of new concepts in management processes with unique characteristics and can encourage more innovative business processes in building superior performance (Ndiaye et al., 2018). Business growth is a performance target that must be achieved through implementing various appropriate strategies with effective and efficient use of resources; therefore, the use of social media variables and strengthening management are relevant antecedents to explain why business growth can be achieved at specific results by using the concept and strategy as it is today. Some research developed by Okundaye, Fan, & Dwyer, 2019; Trianni, Cagno, Neri, & Howard, 2019; Xiang, Chen, Tripe, & Zhang, 2019 illustrates that the performance of an organization can be influenced by many antecedents, including digital platforms, employee competency, management quality, organizational culture, and other antecedents, as well as organizational performance can be measured using several different indicators. However, in this research, the use of social media and strengthening management are antecedents to explain the relationship with business growth variables. It is hoped that it will become an alternative research model that provides a different perspective on using concepts and indicators for each variable, thus providing different values in this research concept.

C. Conceptual Framework

Conceptual framework in study this serves appropriate variable classification with its role including the independent variable (X), namely Social Media (SM), the intervening variable (Z), namely Strengthening Management (SMJ), and the dependent variable (Y), namely Business Growth (BG). The model in this research also explains the relationship between the SM variable to the SMJ and BG variables, as well as the relationship between the SMJ variable to the BG variable. Furthermore, this conceptual framework can be presented in Figure 2 below.

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1086
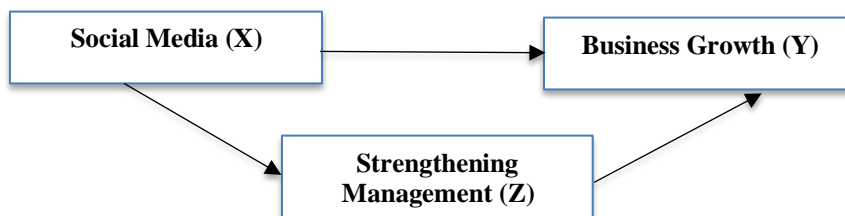
Figure 2: Framework Conceptual

Source: Modification Writer

II. METHODS

A. Population and Sample

The population in study are micro and small business actors spread across four business centers (clusters) in Sidoarjo Regency, which has 186 business actors. Management analysis unit for micro and small businesses, sample size 92 (49.46%), sample members were taken using a purposive sampling method with certain criteria. These micro and small business activities include business; handicrafts, food and drink products, muslim clothing, women's accessories, worship equipment, various souvenirs and various children's toys.

B. Sampling Technique

The sampling technique in this research used purposive sampling with the criteria that micro and small business actors have been active since the beginning of 2019 until the end of 2022, are still in business during the 2020-2021 covid-19 pandemic, are familiar with social media, micro, and small businesses they are located in the central business area of Sidoarjo Regency, business manager and owner. Based on these criteria, 92 micro and small business actors were obtained as samples and as respondents. Questionnaires were distributed and filled in directly by respondents who were members of the micro and small business community in the Sidoarjo district for one month (1 June 2023 - 30 June 2023).

C. Variable Measurement

Social Media is a digital platform that facilitates its users to communicate, interact, and share content that can support activity social good from business, science knowledge, or other activities that provide benefits for users (Dolz, Iborra, & Safón, 2019; Fitriati, Purwana, & Buchdadi, 2020; Goerzig & Bauernhansl, 2018). Measurement of internal variables study was developed based on five indicators, which include: a) optimization of social media, b) building networking on social media, c) behavior of social media users, d) recognizing the market on social media, and e) sharing content on social media.

Strengthening Management is a planned and conscious effort to improve the strategic role of management to be more characterful, dignified, and helpful in managing management processes and business processes better and ensuring business sustainability in the future (Lin & Ho, 2019; Rauch, Dallasega , & Matt, 2017; Vásquez et al., 2019). The variable measurements in this research were developed based on five indicators, which include: a) characterful management, b) dignified management, c) effective management, d) specific management, and e) sustainable management.

Business Growth is the final result of implementing management processes and business processes by using existing resources effectively and efficiently in accordance with the desired planned goals over a certain period (Okundaye, Fan, & Dwyer, 2019; Trianni, Cagno, Neri, & Howard, 2019; Xiang, Chen, Tripe, & Zhang, 2019). Variable measurements in this research were developed based on five indicators, which include: a) revenue growth, b) order growth, c) service growth, d) profit growth, and e) market access growth.

D. Data Source

The data used in this research comes from primary data sources, namely the type of data collected through a questionnaire instrument, which was sent and filled in directly by the micro and small business actors (owners) selected as respondents. The measurement scale uses a Likert scale with five categories (1. Strongly disagree /suitable, 2. Disagree/suitable, 3. Fair, 4. Agree/suitable, 5. Strongly agree/suitable), the data measurement results are categorized as interval data. Meanwhile, the validity testing criteria use the Pearson product-moment correlation coefficient value, while the reliability coefficient value uses Cronbach's alpha. The instrument is declared valid if the Correlated-item-total correlation coefficient value is positive ≥ 0.30, while the instrument is declared reliable if the Cronbach's alpha value is ≥ 0.60.

E. Data Analysis

Data analysis in this research uses analysis path (path analysis) by using data originating from primary data sources, namely the type of data collected systematically directly from respondents via charging questionnaire instrument by micro and small business actors (owners) who meet the criteria as respondents. The measurement scale uses a Likert scale with five alternative possible answers chosen in accordance with the picture in the object under study.

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1087

III. RESULTS AND DISCUSSION

A. Description of Research Results

Based on a sample of 9 2 respondents, the questionnaire was sent directly to micro and small business actors in Sidoarjo district over one month. During June 2023, the number of questionnaires that were responded to and filled out was completed by 87 respondents (94.57%). Therefore, the data collected through this questionnaire was representative and processed further.

Table 1: Characteristics Respondents and Activities Business

Gender	Amount	Percentage
Man	8	09.20 %
Woman	79	90.80 %
Total	87	100.00 %
Business Activities	Amount	Percentage
HandyCraft	41	47.13 %
Garments & accessories	29	33.33 %
Various processed foods and drinks	8	09.20%
Various toy products	9	10.34%
Total	87	100.00 %

Source: Data processed by the author

Table: 1 displays the characteristics of respondents who are micro and small businesses consisting of gender and business focus. There were 79 female respondents (94.57%) and 8 male respondents (5.43%). Meanwhile 47.13% of respondents owned handicraft businesses, 33.33% garment and accessories businesses, and 19.54% of various processed food and beverage products as well as (various children's toy products).

Table 2: Characteristics of Age And Experience Respondent

Age of Business Actor	Amount	%
≤ 25 years	7	8.05
26 - 35 years old	29	33.33
36 – 45 years old	37	42.53

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency: Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1088

46 – 55 years old	*9*	*10.34*
≥ 56 years old	*5*	*5.75*
Amount	*87*	*100.00*
Length of Experience of the Actor as a Business Person	*Amount*	*%*
≤ 10 years	*12*	*13.79*
11 - 20 years old	*31*	*35.63*
21 – 30 years	*38*	*43.68*
31 – 40 years	*4*	*4.60*
≥ 41 years old	*2*	*2.30*
Amount	*87*	*100.00*

Source: Data processed by the author

Table: 2 presents information regarding the characteristics of respondents based on micro and small business actors based on age including 8.05% aged ≤ 25 years, 33.33% aged 26-35 years, 42.53% aged 36-45 years, 46-55% aged years 10.34% and aged ≥ 56 years 5.75%. Overall, the respondents in this study were dominated by those of productive age under 45 years, namely 83.91%. This table also presents the characteristics of respondents based on their experience as business actors, with an experience of business ≤ 10 years amounting to 13.79%, with a length of 11-20 years amounting to 35.63%, with an experience of 21-30 years amounting to 43.68%, with 31-40 years old is 4.60%, with ≥ 41 years old is 2.30%. Respondents who have business experience ≤ 20 years dominate the micro and small business group in the city of Sidoarjo, namely 49.42%.

Table 3: Validity Test and Reliability Test

Variables	*Correlation Coefficient*	*Critical Value*	*Criteria*
Social Media	*0.314 - 0.741*	*0.30*	*Valid*
Strengthening Management	*0.417 - 0.764*	*0.30*	*Valid*
Business Growth	*0.332 - 0.762*	*0.30*	*Valid*
Social Media	*0.724*	*0.60*	*Reliable*
Strengthening Management	*0.717*	*0.60*	*Reliable*
Business Growth	*0.791*	*0.60*	*Reliable*

Source: Data processed by the author

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency: Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1089

Table 3 above presents the results of validity testing for these three variables with a calculated r-correlation coefficient value between 0.314-0.764; thus, these three variables have a value of ≥ 0.30. Meanwhile, the reliability testing results with Cronbach Alpha values are between 0.717-0.791, with all three variables having values ≥ 0.60. Therefore, the results measurement has fulfilled specified criteria, and the instrument research used for data collection is valid and reliable.

B. Model Testing

Analysis path (Path analysis) in this study uses data standardized regression, whereas data processing using software Statistical Product and Service Solutions (SPSS) Version 23. The results of testing the direct and indirect influence path coefficients can be presented in Table 4.

Table 4: Coefficient Results Influence Direct

Independent Variable	Dependent Variable	Standardize Coefficient	Sig. (0.05)
Social Media	Strengthening Management	0,347	0.039
Social Media	Business Growth	0,324	0.041
Strengthening Management	Business Growth	0,409	0.046

Independent Variable	Intervening Variables	Dependent Variable	Standardize Coefficient
Social Media	Strengthening Management	Business Growth	0.194 (sig. A=0.05)

Source: Data processing results

Table 4 shows the results of testing the standardized coefficient of the direct influence of social media on strengthening management and business growth with a coefficient value of 0.347 (sig 0.039) and 0.324 (sig 0.041). In contrast, the coefficient of the direct influence of strengthening management on business growth has a coefficient value of 0.474 (sig 0.046). This shows that the relationship between variables in this study has a positive and significant influence, so hypotheses H_1, H_2, and H_3 are all accepted. This table also shows the calculation of the coefficient results for the indirect influence of social media on business growth through the management strengthening variable of 0.133 (0.324 x 0.409). Therefore, strengthening management can be an influential intervening variable because it also strengthens the influence of social media on business growth. The total influence of social media variables on business growth becomes stronger, namely 0.480 (0.347 + 0.133). Therefore, the management strengthening variable is essential in this research model. The direct influence coefficient can also be expressed in the form of an equation model as follows:

17. $Z_{SMJ} = 0.347\,Z_{SM}$
18. $Z_{BG} = 0.324\,Z_{SM} + 0.409\,Z_{SMJ}$

B. Discussion
1. Influence of Social Media Towards Strengthening Management

Social media has a positive and significant effect on strengthening management, with a coefficient of 0.347 (sig. 0.039). Although the influence of social media on strengthening management is still in the weak category, this shows that micro and small business actors are already interested in utilizing social media platforms for their interests. Management development is still superficial, such as looking at content displays, products that often appear on social media, and other information. Micro and small business actors should have started creating creative and innovative content related to their products so that they can be marketed via social media, have a wider reach of information, and can be accessed by users across social media. Micro and small business actors still need more serious attention from the bureaucracy, academics, and the public to provide social media platform literacy in a massive and structured manner so that the transformation of knowledge, understanding, and benefits of social media platforms can be optimized for the development of better management practices (Domi et al., 2019).

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1090

Social media grows and develops along with changes in people's behavior in fulfilling lifestyle tastes, ways of interacting with their social communities, and behavior in their activities in society; therefore, micro and small business actors must be able to read these changes in people's behavior as needs must be met through quality services and products that exceed competitors' (Cantonnet, Aldasoro, & Iradi, 2019). The results of this research are in line with research developed by Mohamad Radzi, Mohd Nor, & Mohezar Ali, 2017; Ombi, Ambad, & Bujang, 2018, that social media platforms have two dimensions that must be understood by micro and small businesses in the city of Sidoarjo if they want their businesses to grow and develop as planned. Firstly, social media platforms can strengthen more effective management to manage business processes effectively to achieve better performance. Secondly, social media platforms must be developed through creative and innovative ideas from original ideas to create added value, which leads to efforts to improve the quality of services and products following the desires and needs of consumers. Therefore, using social media must contribute to strengthening management practices, which are practical and can leverage business growth for the better (Dolz, Iborra, & Safón, 2019).

2. Influence of Social Media Towards Business Growth

Social media has a positive and significant effect on business growth, with a coefficient of 0.324 (sig. 0.041). Although the influence of social media on business growth is still in the weak category, this shows that micro and small business actors have started to adopt social media to develop and manage their businesses. However, it is still limited to access to information only. Micro and small business actors should start utilizing social media platforms to create a creative culture and behave innovatively in managing their businesses and achieving better performance. The experience of the Covid-19 pandemic provides invaluable learning value. Social media must penetrate markets isolated by the deadlock of direct communication with consumers (Lin & Ho, 2019). Entering the era of new normal life and endemic conditions, it is appropriate that the orientation of the use of social media is more directed at optimizing efforts to extract market information to build added value and create better quality services and products for consumer satisfaction. Therefore, consumer satisfaction must be a target for business actors continuously, ensuring that management processes and business processes only produce added value for customer satisfaction (Sawaean & Ali, 2020).

As an internet-based platform, social media should be used wisely and correctly for managing management, utilizing literacy for knowledge transformation, developing, and applying it to have management with character, dignity, and efficiency so that every management process has high moral and ethical standards. Micro and small business actors have limited ideas and ideas of creative and innovative value in developing management because what they have done so far has only focused on how their business can generate income that can provide a living for their families, and the business remains sustainable even with a fixed economic scale, even almost went bankrupt during the Covid 19 pandemic in 2020. The results of this research are similar to research developed by Lin & Ho, 2019; Vásquez et al., 2019 that social media platforms can provide positive support for business actors through new ideas and ideas that can be used as a basis for developing more creative and effective management, in line with the suitability of their business level.

3. The Effect of Strengthening Management on Business Growth

Strengthening management positively and significantly effects business growth, with a coefficient of 0.409 (sig. 0.046). Although the effect of strengthening management on business growth is still in the sufficient category, strengthening the management of micro and small businesses still needs to be improved. Of course, this is influenced by factors of commitment and response that are still changing. Therefore, the management models and approaches are also limited, yet they lead to ideas that are more friendly to the value of change. The commitment of micro and small business actors needs to be appreciated positively because moving toward change requires a process and sufficient time. Literacy, understanding, adjustment, and careful implementation are needed to escape the management deadlock that has ensnared their business processes so far (Wahyuni & Sara, 2020). Strengthening management must have a solid basis for the value of change because change is inevitable during the current business cycle. Therefore, commitment and self-awareness are needed, and adapting is the right solution to eliminate the impact of changes that disrupt business processes (Prashar, 2019).

Business growth as an indicator of performance evaluation cannot stand alone. Its success is primarily determined by applying management concepts and business processes, therefore leveraging growth the essence of the effort is to find the proper and correct antecedents to explain changes in the growth value. The results of this research are in line with research developed by Trianni, Cagno, Neri, & Howard, 2019; Xiang, Chen, Tripe, & Zhang, 2019, that strengthening management as an antecedent has indicators that must be addressed so that the implementation of management can produce good performance such as building character, dignity, efficiency, ethics inherent in the development process and management practices, thereby providing support which is vital in the business process and leverages the growth of the business for the better, therefore it requires self-awareness and a strong commitment that management values require a touch of creativity and innovative behavior in building

Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency: Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1091

a management concept that has unique characteristics in producing better business growth and guaranteeing the process. Sustainable for the future of the business.

V. CONCLUSION

Referring to the results of the discussion and analysis of data, it can be stated, Conclusion: social media is a digital platform that provides facilities for its users to communicate with each other, share information, share content, communicate, and interact virtually. Using social media wisely and correctly will give hope for a new literacy transformation to support concept development, implementation, and change toward realizing proper management strengthening. Strengthening management is a planned and conscious activity to make better changes to management practices that are characterized, dignified, efficient, and ethical, thereby realizing creative and effective management and business practices that produce added value to the quality of services and products for consumers, by because it can leverage business growth for the better. The description explains that social media has a positive and significant influence on reinforcement management and growth efforts, and reinforcement management has a positive and significant influence on the growth of the business sector in the small town of Sidoarjo. However, the influence of the change is still classified as weak because all transformation processes mark change still not yet walk optimally; therefore, hypotheses H1, H2, and H3 can be accepted because all of their antecedents tested in the study have a positive and significant influence with number significance under 0.05. Contribution theoretical: This research provides support for the importance of effort optimization of the value of social media to the development of creativity and innovation in application draft character management with teak strong self, so push materialized strengthening actual management, because that required literacy in a way structured so that the concept theory this capable bring up growth more effort good. Practical implications: Social media use and reinforcement management as antecedent expected capable reveal in a way deep and detailed that growth business as a specified variable mark change by value antecedent that, though mark the change Still classified weak or enough, therefore necessity optimize the role of social media For realization strengthening complete management creative and innovative Limitations: this research does not directly observe the massive influence of social media on changes in people's behavior, whereas an antecedent outside the model it can undoubtedly have a direct or indirect influence on creative and innovative behavior in micro-small business in pandemic condition. Further research: The need for an in-depth study of changes in society's perspective on digital business among micro and small businesses when entering the new normal life era in business due to changes in social media behavior among business people in a way massive, can undoubtedly bring changes to the commitment to investing in digital platforms that lead to behavior creative and innovative in business processes.

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Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1092

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Leveraging the Growth of Micro and Small Sector Businesses in Sidoarjo Regency:
Antecedents of Social Media and Strengthening Management
Wahyudiono, Gimanto Gunawan, Husni Indrawati Wijaya Putri

Page | 1093

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia

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ABSTRACT

Purpose: This study aims to examine the role of good corporate governance in accounting conservatism.

Methodology: This study uses a sample of manufacturing companies listed on the Indonesia Stock Exchange for the 2020-2021 period, with a total sample of 72 company-years. The test uses SPSS 25.

Findings: The study found that independent commissioners and profitability have a significant positive effect on accounting conservatism, while managerial ownership and company size do not affect accounting conservatism.

Implications: This study provides implications for the theory of accounting conservatism, where the factors of independent commissioners and profitability have a significant effect on accounting conservatism. The presence of independent commissioners in the company will ensure that the company's financial reporting process is well-monitored so that the company is more careful in carrying out its financial reporting. Similarly, with profitability, the presence of high profitability will increase the amount of retained earnings, and the company tends to use more conservative accounting principles to regulate earnings to appear more flat and less volatile.

Paper type: Research paper

I. INTRODUCTION

Financial Accounting Standards (FAS) issued by the Indonesian Institute of Accountants (IAI) are guidelines used in the preparation of financial statements in Indonesia. Management has the freedom to apply FAS, which means they have the freedom to choose the accounting recording methods used to generate different financial reports according to the needs and conditions of the company (Andreas et al, 2017). This freedom will affect the behavior of managers in recording accounting and reporting company transactions (Wardhani, 2008). As a result of the freedom to choose accounting methods, managers can produce financial statements that are either optimistic or conservative.

Uncertainty about future economic conditions is one of the considerations companies take into account when applying the principle of conservatism in preparing financial statements. According to Watts (2003) Conservatism is a concept of deferring recognition of future cash inflows. Conservative accounting states that accountants should report accounting information at the lower end of several possible values for assets and revenues and the higher end of several possible values for liabilities and expenses (Hendriksen & Van Breda, 1992).

Critics of the application of the conservatism principle (Wulandari, 2017) argue that conservatism is considered a constraint that can affect financial statements. If the method used in preparing financial statements is based on highly conservative accounting principles, the results tend to be biased and not reflective of reality. However, on the other hand, according to Watts (2003), accounting conservatism is beneficial in avoiding opportunistic behavior by managers. The application of conservatism can reduce the likelihood of managers engaging in financial statement manipulation.

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1094

In 2019, PT. Garuda Indonesia (Persero) Tbk. reported its financial performance by publishing the financial statements for the year 2018. In the 2018 financial statements, PT. Garuda Indonesia (Persero) Tbk. Recorded a net profit of US$ 809.84 thousand. However, a review revealed errors in the preparation of the financial statements, as they were deemed not in compliance with applicable accounting standards. The recorded profit in 2018 occurred because of PT. Garuda Indonesia (Persero) Tbk. Recognized unrealized trade receivables as revenue received, which influenced its operating profit. Due to the recording error, PT. Garuda Indonesia (Persero) Tbk. was subjected to fines as a penalty. This phenomenon indicates the lack of application of the accounting conservatism principle, suggesting that the management was not cautious enough in preparing its financial statements. The analysis of this case supports the notion of the importance of applying the accounting conservatism principle to neutralize management's optimistic behavior and make financial statements more conservative.

Several cases resulting from weak corporate governance in Indonesia can be observed. In 2018, the Lippo Group became involved in corruption issues following an undercover operation by the Corruption Eradication Commission (KPK) after it was revealed that their subsidiary engaged in corruption through bribes for the Meikarta project permits. As a result, the shares of Lippo's property issuer group collapsed, causing losses for investors and shareholders. PT Lippo Cikarang Tbk (LPCK), the developer of the Meikarta project, saw its shares plummet by 240 points (14.77%) to Rp 1,385 after opening at Rp 1,625. Meanwhile, PT Lippo Karawaci Tbk (LPKR) also tumbled by 8 points (2.68%) to Rp 290 (Purwanto Dwi, pratamaindomitra.co.id, 2021). Another case is the PT Freeport Indonesia case in 2017, where there was a discrepancy in wages and salaries for Indonesian workers compared to foreign workers at significantly different levels (Purwanti Puput, hukamnas.com, 2018).

A violation occurred at Jamsostek, which formed a Retirement Insurance Program Development Fund (JHT) worth Rp 7.24 trillion, not in accordance with Government Regulation 22/2004. Jamsostek lost potential contributions due to the implementation of program rates that did not comply with regulations. In the 2011 financial statements, Jamsostek lost potential revenue of Rp 36.5 billion by not applying the occupational accident insurance rates as required (Purwanti Puput, hukamnas.com, 2018).

Those cases indicate the low implementation of the conservatism principle by the company in preparing its financial statements. The behavior of managers in manipulating financial information to appear favorable is related to agency theory, which explains that managers tend to increase profits to hide poor performance. The level of accounting conservatism applied in financial reporting varies among companies. It is influenced by the commitment of management and internal parties of the company to provide accurate, transparent, and non-misleading financial information to investors.

Conservatism is influenced by corporate governance (Mohammed et al., 2017). According to FCGI, good corporate governance is a set of rules that establishes the relationships between shareholders, managers, creditors, government, employees, as well as other internal and external stakeholders in terms of their rights and obligations. This system directs and controls the company. Several studies examining the influence of corporate governance on conservatism have shown varied results. Differences influence these diverse outcomes in the variables used by researchers to proxy corporate governance (Darmawati et al., 2005). The studies by Nasr & Ntim (2018) and Emmanuel & Salisu (2018) indicate that good corporate governance, proxied by independent commissioners, has a positive effect on accounting conservatism. Contrary results are shown in the study by Ongki & Pangestu (2018), which concludes that independent commissioners have a negative effect on accounting conservatism. Prahasita (2016) and Mohammed et al. (2017) demonstrate that good corporate governance, proxied by managerial ownership, has a negative effect on accounting conservatism. These results are not consistent with the study by Malik & Rajab (2017), which states that there is a strong influence of managerial ownership on accounting conservatism.

Another factor that influences accounting conservatism is firm size and profitability. Firm size represents the magnitude of a company, and larger firms tend to have higher and relatively stable profits. As a result, the government may increase taxes and demand higher public services from these larger firms (Wulandari, 2017). Therefore, larger firms tend to use more conservative accounting principles to mitigate political costs. Profitability refers to a company's ability to generate profits. Higher profitability increases the amount of retained earnings, and companies tend to use more conservative accounting principles to manage their earnings to appear more stable and less fluctuating. The studies by Alkurdi et al. (2017) and Nasr & Ntim (2018) indicate that firm size and profitability have a positive effect on accounting conservatism.

The purpose of this study is to analyze the influence of good corporate governance on accounting conservatism. Accounting conservatism, in this study, is measured by the accruals developed by Givoly & Hayn (2000), where positive accruals are classified as conservative earnings and vice versa. The sample used in this study is manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period 2020-2021.

A. Research Framework and Hypotheses
1. *Agency Theory*

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1095

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An agency relationship occurs when the owner of the resources (principal) entrusts the resource manager (agent) to perform certain actions and delegates decision-making authority to the agent. According to Jensen & Meckling (1976), agency theory is conceptualized as a contract between the owner of the resources (principal) and the party entrusted to manage those resources (agent). This contract is used to minimize agency problems that arise due to the separation of interests between the principal and the agent. However, in practice, agency problems cannot be fully resolved just by using contracts. In such conditions, the implementation of good corporate governance plays a crucial role in minimizing agency problems.

The difference in interests between the principal and the agent leads to conflicts that affect the quality of reported earnings. The owner desires the highest and quickest return on investment, while management wants their interests accommodated through the provision of bonuses and maximum compensation for their performance (Wulandari, 2017). furthermore, To fulfill their interests, management tends to prepare financial reports with certain profit figures. This condition can be prevented, among others, by implementing accounting conservatism in the preparation of financial reports. Hati's research (2011) shows that the application of the accounting conservatism principle will result in financial reports with high-quality earnings because it prevents managers from exaggerating the profit figures. In addition, the application of the accounting conservatism principle can assist users of financial reports by presenting assets and earnings that are not overstated, enabling them to obtain quality information as a basis for decision-making. The connection between agency theory and accounting conservatism is that the denser a company's capital structure, the greater protection the principal must undertake, for example, by conducting more intensive monitoring of managerial performance. On the other hand, it will discourage earnings manipulation as managers are more likely to act cautiously or conservatively in presenting financial reports.

2. Accounting Conservatism

According to Wirda (2016), conservatism is a cautious reaction to uncertainty, and the risks associated with the business situation can be adequately considered. Suwardjono (2013) defines *conservatism* as an attitude or approach (school) in facing uncertainty with the aim of making a decision based on the worst outcome of that uncertainty. Conservatism is an effort to choose generally accepted accounting methods to recognize revenue on a slower basis but with faster recognition of expenses, lower asset valuation, and higher liability valuation (Wolk et al., 2013). The accounting methods in the Financial Accounting Standards (PSAK) provide opportunities for managers to apply conservative accounting, as explained by Savitri (2016), as follows:

1. PSAK No. 14 on inventory states that companies can record inventory costs using either the FIFO (First-In, First-Out) method or the weighted average method.
2. PSAK No. 16 on property, plant, equipment, and other assets regulates the estimation of the useful life of a fixed asset. The estimation of an asset's useful life is based on management's consideration derived from the company's experience in using similar assets. This useful life estimation must be periodically reviewed. If management finds that the useful life of an asset is different from the previous estimation, adjustments are made to the current and future depreciation expenses. This standard provides the opportunity for companies to change the useful life of assets.
3. PSAK No. 19 on intangible assets relates to the method of amortization. This statement explains that there are several methods of amortization to allocate the depreciation amount of an asset systematically over its useful life.
4. PSAK No. 20 on research and development costs states that the allocation of research and development costs is determined by considering the relationship between the cost and the expected economic benefits that the company will obtain from research and development activities. If there is a high likelihood that the cost will enhance future economic benefits and the cost can be reliably measured, then the cost qualifies to be measured as an asset.

3. Good Corporate Governance

According to KNKG (2006), corporate governance is one of the pillars of the market economic system. Good corporate governance is needed to encourage the establishment of an efficient market, transparency, and consistency with applicable regulations. FCGI (2001) defines *good corporate governance* as a set of rules that establish the relationships between shareholders, managers, creditors, the government, employees, and other internal and external stakeholders regarding their rights and obligations, or in other words. This system directs and controls the company.

4. Company Size

The higher the total assets and profits generated, the larger the size of the company, and vice versa (Diantimala, 2008). Large companies have more complex management systems; hence, they have higher problems and risks compared to small and medium-sized enterprises. Large companies have relatively permanent high

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1096

profits. Therefore, the government tends to increase taxes and demand higher public services from large companies (Wulandari, 2017). Large companies tend to use more conservative accounting principles to reduce these political costs.

5. Profitability

Profitability is the company's ability to generate profits through its operational activities using the assets owned by the company (Kusuma et al., 2013). Assets are all company assets acquired from its own capital or foreign capital that the company transforms into company assets that are utilized to support operational activities. Profitability measurement can be done by calculating ROA (return on assets). ROA is used to analyze the company's ability to generate profits in the past and project it into the future (Riadi, 2017). Additionally, ROA helps management and investors assess how well a company can convert its investments in assets into net profit. A higher ratio indicates that the company is more effective in managing assets to generate higher net profits.

6. Hypothesis Development

Good corporate governance is a set of rules that govern the rights and obligations among stakeholders within a company and requires a company to be transparent in all its processes (Putra & Nuzula, 2017). The implementation of good corporate governance has an impact on increasing investor confidence because there is no information bias between management and investors. The Corporate Governance Perception Index (CGPI) is a research and ranking program for the implementation of good corporate governance in companies in Indonesia, aiming to encourage companies to improve the quality of implementing good corporate governance. Information related to CGPI is expected to have a positive effect on investor confidence in the funds they invest.

Independent commissioners, as one of the mechanisms in the implementation of good corporate governance, require accurate and high-quality information in performing their monitoring function. A strong board of directors (dominated by independent commissioners) will require higher-quality information, leading to a tendency to use more conservative accounting principles (Wijayanti, 2012). Research by Nasr & Ntim (2018) shows that good corporate governance assessed by independent commissioners has a positive influence on accounting conservatism. A smaller proportion of independent commissioners will result in weaker supervision, giving managers the opportunity to apply less conservative accounting principles (Limantauw, 2012). Good corporate governance assessed by managerial ownership has a strong influence on accounting conservatism (Malik & Rajab, 2017). The larger the proportion of managerial ownership in a company, the more managers will strive to meet the interests of shareholders, who are also themselves (Nantyah & Laila, 2017). Therefore, companies with relatively large managerial ownership tend to be conservative. Conservatism is an effort to limit managerial opportunistic behavior, avoiding being excessive but also not overly pessimistic in the preparation of financial reports (Savitri, 2016). Based on the above description, the following hypotheses are formulated:

H1: Independent commissioners have a positive influence on accounting conservatism.
H2: Managerial ownership has a positive influence on accounting conservatism.

II. METHODS

A. Population and Sample

Population refers to the generalization region consisting of subjects with specific characteristics determined by the researcher for study and conclusion (Anshori & Iswati, 2009). The population of this study includes all manufacturing companies listed on the Indonesia Stock Exchange (IDX) that report complete financial statements. The use of companies listed on the IDX as the population is because these companies are obligated to submit annual reports to external parties, allowing the annual report data to be obtained for this study. A sample is a carefully selected part of the population to represent the characteristics of the population. The sample selection is based on the purposive sampling method. The criteria for the sample used are:

1. Manufacturing companies registered as manufacturing companies on the IDX during the period 2020-2021.
2. Publishing annual reports during the period 2020-2021.
3. Publishing audited financial statements and providing complete information required for this study.
4. Using the Indonesian Rupiah currency in financial statements.
5. Manufacturing companies that did not incur losses during the period 2020-2021.

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1097

B. Research Data

Tabel 1. Sample Selection

No.	Sample Criteria	Number
1.	*Manufacturing companies listed on the IDX during the period in 2020-2021*	*193*
2.	*Companies that did not publish annual reports*	*0*
3.	*Companies that did not provide complete information required for the study*	*(112)*
4.	*Companies that did not use the Indonesian Rupiah currency in fincancial statements*	*(8)*
5.	*Manufacturing companies that did not incur losses during the period in 2020-2021*	*(37)*
	Total Companies	*36*
	Total Observation Years	*2*
	Total Sample	*72*

C. Research Variables
1. Dependent Variable(Y)

Accounting conservatism is a principle that applies caution by immediately recognizing losses, even if they are unrealized, and not recognizing gains before they are realized. Accounting conservatism in this study is measured by the accrual value developed by Givoly and Hayn as in Savitri's research (2016), such as:

$$CONACC = \frac{(NIO + DEP - CFO) \; X \; (-1)}{TA}$$

Where :
CONACC = Accounting Conservatism Level
NIO = Operating profit in year t
DEP = Depreciation of fixed assets in year t
CFO = Net amount of operating cash flow in year t
TA = Total assets in year t

2. Independent Variable (X)

This research consists of independent variables, namely good corporate governance, which is proxied by independent commissioners and managerial ownership.

1. Independent commissioners are board members who have no affiliation with anyone inside the company or the company itself (Pratomo & Havivah, 2021). Independent commissioners are measured by calculating the proportion of independent board members by the percentage of the Number of members originating from outside the company divided by the total Number of board members. If formulated as follows:

Proportion of Board o Commissioners = $\frac{\text{Number of Independent Board Members}}{\text{Total Number of Board Members}}$

2. Managerial ownership is the ownership of shares by company management (Putra & Nuzula, 2017). Managerial ownership is measured by calculating the percentage of the Number of shares owned by directors divided by the Number of shares outstanding (Harti & Hakim, 2021). If formulated as follows:

Managerial Ownership = $\frac{\text{Number of Shares Owned by Directors}}{\text{Number of Shares Outstanding}}$

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1098

3. Control Variable

1. Company size refers to the size of a company based on the total assets it possesses at the end of the year. According to Sudarmadji & Sularto (2007), company size can be assessed using the benchmark of total assets. The use of the natural logarithm of total assets to assess company size in this study aims to reduce data fluctuations. Company size is formulated as follows:

   SPit = Ln Tait
   Where:
   SPit = Company size for the company i in year t
   Ln = Natural Logarithm
   Tait = Total assets for company i in year t

2. Profitability is the company's ability to generate profit in a certain period (Kasmir, 2014). The ROA measures profitability in this study (return on assets) ratio. The use of the ROA ratio to measure profitability is due to the relatively high Net Interest Margin (NIM) in Indonesia compared to other developing countries. With a high NIM, the ROA ratio is also relatively high. ROA is formulated as follows:

$$ROA = \frac{\text{Net Income After Tax}}{\text{Total Assets}}$$

III. RESULTS AND DISCUSSION

A. Descriptive Statistics

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Independent Commisioner	72	.20	.60	.4165	.08949
Managerial Ownership	72	.00006750000	.89444444440	.1195400507611	.18957099960893
Company Size	72	25.079	33.537	28.28859	1.773000
Profitability	72	.0004	.3636	.064193	.0619362
Accounting Conservatism	72	-.688	.348	-.20765	.188267
Valid N (listwise)	72				

Based on the table above, the following descriptive statistics results will be described:

1. Independent Commissioners

   The sample used is 72 samples, resulting in a mean value of 0.4165 and a standard deviation of 0.08949. The minimum value during the observation period was 0.20, obtained at PT. Indo Acitama Tbk (SRSN) in 2020 and 2021. The maximum value during the observation period was 0.60, obtained at PT. Diamond Food Indonesia Tbk (DMND) in 2020 and 2021.

2. Managerial Ownership

   The sample used is 72 samples, resulting in a mean value of 0.1195400507611 and a standard deviation of 0.18957099960893. The minimum value during the observation period was 0.00006750000, obtained at PT. Phapros Tbk (PEHA) in 2020 and 2021. The maximum value during the observation period was 0.89444444440, obtained at PT. Beton Jaya Manunggal Tbk (BTON) in 2020 and 2021.

3. Company Size

   The sample used is 72 samples, resulting in a mean value of 28.28859 and a standard deviation of 1.773000. The minimum value during the observation period was 25.079, obtained at PT. Sinergi Inti Plastindo Tbk

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1099

(ESIP) in 2020. The maximum value during the observation period was 33.537, obtained at PT. Astra International Tbk (ASII) in 2021.

4. Profitability

The sample used is 72 samples, resulting in a mean value of 0.064193 and a standard deviation of 0.0619362. The minimum value during the observation period was 0.0004, obtained at PT. Cahayaputra Asa Keramik Tbk (CAKK) in 2020. The maximum value during the observation period was 0.3636, obtained at PT. Mark Dynamics Indonesia Tbk (MARK) in 2021.

5. Accounting Conservatism

The sample used is 72 samples, resulting in a mean value of -0.20765 and a standard deviation of 0.188267. The minimum value during the observation period was -0.688, obtained at PT. Saranacentral Bajatama Tbk (BAJA) in 2021. The maximum value during the observation period was 0.348, obtained at PT. Garudafood Putra Putri Jaya Tbk (GOOD) in 2020.

B. Uji Asumsi Klasik

1. Normality test

The normality test used in this study is the Kolmogorov-Smirnoc test with the following result:

Tabel 3. Uji Normalitas

		Unstandardized Residual
N		72
Normal Parametersa,b	Mean	0E-7
	Std. Deviation	.16932127
Most Extreme Differences	Absolute	.076
	Positive	.076
	Negative	-.073
Kolmogorov-Smirnov Z		.645
Asymp. Sig. (2-tailed)		.799

a. Test distribution is Normal.
b. Calculated from data.

The results of the normality test showed that the company size variable obtained a KS-Z value of 0.645 with a probability of 0.799 (p>0.05), which means that the data on the independent variable and the control variable have a probability value greater than 5% (p>0.05), which means that the data already meets the normal distribution.

2. Multicollinearity Test

The result of the multicollinearity test are as follows:

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1100

Tabel 4. Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.982	.351		-2.797	.007		
	Independent Commissioners	.642	.259	.305	2.476	.016	.795	1.258
	Managerial Ownership	-.128	.122	-.129	-1.048	.298	.800	1.250
	Company Size	.021	.012	.197	1.729	.089	.926	1.079
	Profitability	-1.089	.350	-.358	-3.110	.003	.909	1.100

a. Dependent Variable: konservatisme akuntansi

Based on the test results as shown in the coefficient table above, it is known that the tolerance value of independent commissioners is 0.795 with a VIF of 1.258; managerial ownership has a tolerance value of 0.800 with a VIF of 1.250; company size has a tolerance value of 0.926 with a VIF of 1.079; and the profitability variable has a tolerance value of 0.909 with a VIF of 1.100. Therefore, it can be concluded that if the VIF value is less than ten and the tolerance value is greater than 0.10, then there is no multicollinearity problem in this data. The results of the multicollinearity test are as follows:

k.   Autocorrelation Test

Tabel 5. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.437a	.191	.143	.174302	.191	3.958	4	67	.006	.873

a. Predictors: (Constant Profitability, Managerial Ownership, Company Size, Independent Commisioners
b. Dependent Variable: Accounting Conservatism

Based on the results of the autocorrelation test, a Durbin-Watson value of 0.873 was obtained, which indicates that there is no autocorrelation because the Durbin-Watson value is between -2 and 2.

C. Heteroskedasticity Test
To determine whether or not there is heteroskedasticity, a scatterplot can be used. Here is the scatterplot results:

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika
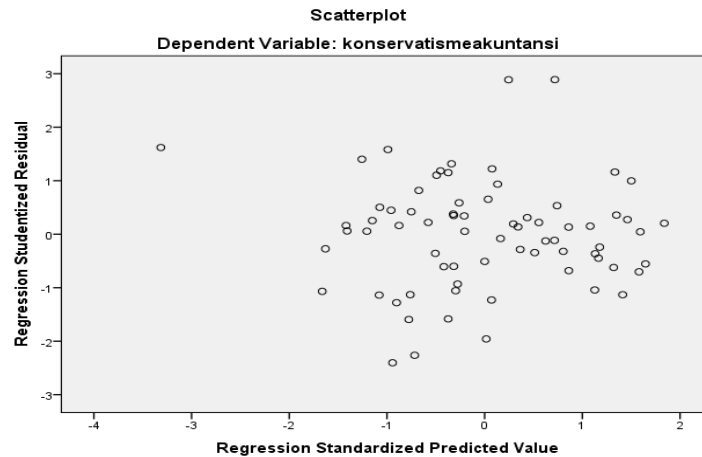
Page | 1101

Figure 1. Scatterplot

Based on Graph 1 above, it can be seen that the points are scattered randomly and spread both above and below the zero line on the Y-axis, not gathered in one place, and do not form a certain pattern, so it can be concluded that there is no heteroskedasticity.

D. Hypothesis Testing

A partial (t-test) is performed to determine whether the independent and control variables have a partial effect on the dependent variable. In this test, the significance level (α) is set to 5%. Here are the results of the t-test:

Tabel 6. Uji t

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.982	.351		-2.797	.007		
Independent Commissioners	.642	.259	.305	2.476	.016	.795	1.258
1 Managerial Ownership	-.128	.122	-.129	-1.048	.298	.800	1.250
Company Size	.021	.012	.197	1.729	.089	.926	1.079
Profitability	-1.089	.350	-.358	-3.110	.003	.909	1.100

a. Dependent Variable: konservatisme akuntansi

1. Effect of Independent Commissioners on Accounting Conservatism

Based on the results of the test in Table 6, the independent commissioner variable has a significance value of 0.016, which is less than 0.05 (5%), (0.016 < 0.05), indicating that the independent commissioner variable has a partial effect on accounting conservatism. The higher the proportion of independent commissioners to the total number of commissioners, the greater the level of accounting conservatism used in the company. Because the more independent commissioners in the company, the stronger the supervision of the company's performance.

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1102

This study supports the hypothesis proposed by (Alvino & Sebrina, 2020; Yuniarti & Pratomo, 2020; Pratomo & Havivah, 2021; Novianti & Astohar, 2015) that independent commissioners have a positive effect on accounting conservatism. With the presence of independent commissioners in a company, the company's financial reporting process will be well-monitored in the sample companies that have been studied so that in carrying out their financial reporting, the company is more careful. These independent commissioners will ensure that the company applies accounting principles that will produce accurate and quality company financial information through the use of higher conservatism principles in the company's financial reporting process.

2. Effect of Managerial Ownership on Accounting Conservatism

The managerial ownership variable has a significance value of 0.298, which is more than 0.05 (5%), (0.298 > 0.05) indicating that the managerial ownership variable has no partial effect on accounting conservatism. According to the findings of the partial testing conducted by the researcher, managerial ownership does not have a partial effect on accounting conservatism. The findings of the t-test resulted in a probability value of managerial ownership of 0.4422 > 0.05. The second hypothesis is rejected. These results are in line with the research of Purwasih (2020), which states that accounting conservatism is not affected by managerial ownership. This is due to the low average ownership of manager shares in the company, which will result in the decisions of managers not having much impact on the company's decision to implement conservative accounting. In carrying out their duties, managers behave in accordance with their responsibilities without considering the interests of each individual.

3. Effect of Company Size on Accounting Conservatism

The company size variable has a significance value of 0.089, which is more than 0.05 (5%), (0.089 > 0.05) indicating that the company size variable has no partial effect on accounting conservatism. The implementation of accounting conservatism cannot be guaranteed solely based on company size. This implies that there are other influential factors at play. Through statistical analysis, it became clear that company size, measured by total assets, varies in its range, while the conservatism variable shows that some companies adopt conservatism while others do not. In essence, the size of the company is not correlated with the corresponding increase or decrease in the application of accounting conservatism. This shows that company size does not affect the application of accounting conservatism. In addition, government regulations are in line with the preferences of each company, thus eliminating it as a reason for not applying accounting conservatism (Sumiari & Wirama, 2016).

E. Profitability

The profitability variable has a significance value of 0.003, which is less than 0.05 (5%), (0.003 < 0.05), indicating that the profitability variable has a partial effect on accounting conservatism. High profitability will increase the amount of retained earnings, and companies tend to use more conservative accounting principles to regulate earnings to appear more stable and less volatile.

V. CONCLUSION

Based on the results of the analysis and hypothesis testing, the researcher found that independent commissioners and profitability have a positive and significant effect on accounting conservatism. In contrast, managerial ownership and company size do not affect accounting conservatism.

This study has implications for the theory of accounting conservatism, where the factors of independent commissioners and profitability have a significant impact on accounting conservatism. The presence of independent commissioners in a company will ensure that the company's financial reporting process is well-monitored so that the company is more careful in carrying out its financial reporting. Similarly, high profitability will increase the amount of retained earnings, and companies tend to use more conservative accounting principles to regulate earnings to appear more stable and less volatile.

This study only used a sample of manufacturing companies during the 2020-2021 period and is limited in number due to the sample criteria that must be met. Further research can use samples from several sectors by extending the observation period and using other variables that can affect accounting conservatism.

The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1103

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The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1104

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The Role of Good Corporate Governance in Influenced Accounting Conservatism of Manufacturing Companies in Indonesia
Lilik Pirmaningsih, Nurul Aini*, Novaldy Arief Pradika

Page | 1105

Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies

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ABSTRACT

Purpose: The purpose of this study was to determine and analyze effect of the debt-to-assets ratio, maturity, guarantee, and company size on construction company bond ratings.

Design/methodology/approach: The population and sample of this research is construction companies that publish complete financial reports from 2014 to 2022. Data analysis uses logistic regression analysis.

Findings: The results showed that: 1) Debt to assets ratio has no significant effect on the probability of bond ratings, because investors tend to buy bonds because they see the company's reputation not from the Debt to Assets Ratio obtained by the company; 2) Maturity has no significant effect on bond ratings, because investors tend to buy bonds with ages under 3 years, because companies with maturity under 3 years are able to pay off their obligations to pay the loan principal at maturity; 3) Guarantees have no significant effect on bond ratings, because investors tend to buy bonds because they look at the company's reputation, not from what is guaranteed and not guaranteed to the company; 4) Company size has no significant effect on bond ratings, because investors tend to buy bonds not in terms of company size but from the company's reputation; 5) The debt-to assets ratio, maturity, guarantee, and company size affect bond ratings.

Paper type: Research Paper

Keyword: Debt-To-Asset Ratio, Bond Age, Guarantees, Company Size, Bond Rating

I. INTRODUCTION

A. Introduction
1. Background

The capital market is a means of forming capital and accumulating funds aimed at increasing public participation in directing funds to support national development financing. In its activities, the government has provided various facilities to companies that offer stocks or bonds to the public by providing facilities and also providing regulations so that the interests of the community are guaranteed and that every company that is going to go public is examined for its feasibility. Currently, the only capital market in Indonesia is the Indonesia Stock Exchange (IDX). Adhisyahfitri Evalina Ikhsan, M Nur Yahya & Saidaturrahmi, 2008). There are two types of financial investments in the capital market: investments in certificates of ownership (shares) and investments in debt securities (bonds). Investments in debentures (bonds) are more attractive to investors because they can bring in a fixed income derived from the principal of the bond and interest that will be received periodically at maturity (Adhisyahfitri Evalina Ikhsan, M Nur Yahya & Saidaturrahmi, 2008).

Sources of financing are an important part of the survival of a business, especially for business expansion and as a means to strengthen the company's capital. One form of funding that the company can obtain is by issuing bonds. Bonds are attractive and in demand by investors because they have the advantage that bondholders have first rights over company assets if the company goes into liquidation (Brigham & Huoston, 2010; Barus et al., 2020)

Page | 1106

Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies
Titin Ruliana, Ratna Dewi Yanti, Abdurrahman Ahda Naufan, Jumadi Tukmuly

The development of investment in the bond market has become increasingly attractive in recent years. This is indicated by the increasing value of bond market capitalization in Indonesia in December 2012, which recorded the highest record since 2006 with the achievement of IDR 60.50 trillion. The issuance of corporate bonds in 2011 amounted to IDR 45.93 trillion. Bond issuance until the third week of December 2010 reached IDR 35.897 trillion, an increase of 31.9% compared to last year's achievement of IDR 27.215 trillion (Bapepam-LK, 2012; Veronica, 2015).

To find out whether a bond investment is safe, investors can look at bond ratings. The bond rating agency in Nusantara is PT. Pefindo (Indonesian Securities Rating Agency). Every year, PT Pefindo rates the issuer's bonds and disseminates them both on its website and in other media. PT Pefindo uses various factors to rank issuer bonds (Arafah, 2019). The bond rating agency is an independent institution that provides risk scale rating information, one of which is bond securities, as an indicator of how secure a bond is for investors. This security is shown by a company in paying its obligations or loans.

Several previous studies regarding bond ratings conducted by Veronica (2015) used multiple logistic regression analysis tools and found that profitability, liquidity, company size, debt-to-asset ratio (DAR), and bond age have a significant effect on bond ratings. The results of the study Arafah (2019) tested the effect partially and dominantly using a logistic regression analysis tool and found the result was profitability. growth. DAR and bond age have an effect on bond ratings, and liquidity, collateral, and company size have no significant effect. And one variable that has no significant effect, namely profitability, in determining bond ratings.

This study accommodates previous research by adding collateral variables to be tested and analyzed against bond ratings. This is in accordance with the objectives of this study, which are to test and analyze:
1. The partial effect of Debt to Assets Ratio (DAR), maturity, guarantee, and company size on bond ratings in construction companies;
2. The simultaneous effect of DAR, bond age, collateral, and company size on bond ratings in construction companies.

Based on the background description, the problems in this study can be formulated as follows:
1) Does the debt-to-asset ratio affect the bond ratings of construction companies?
2) Does the maturity affect the rating of bonds in construction companies?
3) Does the guarantee affect the bond ratings of construction companies?
4) Does company size affect bond ratings for construction companies?
5) Does the debt-to-assets ratio, maturity, guarantees, and company size affect the bond rating of construction companies?

B. Literature review
1. Bond

Bond investing is one of the most popular investments among investors. This is because bonds have a fixed income, which is obtained from interest that will be received periodically and the principal of the bond at maturity. For issuers, bonds are safe securities because their emission costs are cheaper than stocks. In addition, the issuance of bonds is also to avoid investors' bad judgment compared to if the company issues new shares (Husnan, 2007; Veronica, 2015).

Bond rating is a measure of quality and security for investors to invest in bonds. Security can be seen in the company's ability to pay loan principal and interest. Investors can obtain information about bond ratings through PT. Pefindo (the Indonesian Rating Agency) and PT. Kasnic Credit Rating Indonesia. There are many benefits provided by bond ratings, namely being able to minimize conflicts between investors and companies. The company wants all of its bonds to be sold, and investors expect a guarantee that the company is healthy and not losing money. In addition, bond ratings eliminate guarantee costs by the company and eliminate costs for analyzing the health condition of a company by investors (Simatupang & Naz'aina, 2022)

2. Debt to Assets Rasio

Solvability analysis measures the company's ability to cover all of its obligations. Solvency also indicates the amount of capital issued by investors in order to generate profits (Rachmawati, 2008). The solvency of companies in this study is measured by comparing the amount of debt (both short-term and long-term) with total assets. This comparison figure is stated in the debt-to-asset ratio. The purpose of using the debt-to-assets ratio is because this ratio indicates the health of the company.

The debt-to ratio is a debt ratio used to measure the ratio between total debt and total assets. In other words, how much of the company's assets are financed by debt or how much the company's debt affects asset management (Kasmir, 2014; Andhani, 2019) In other words, this ability leads to a picture of the company's financial health, which includes the availability of costs or the company's ability to bear the debts of the entity. The Debt to Total Asset Ratio variable uses the following formula: Debt-to-Asset Ratio = (Total Debt/Total Assets) x 100%.

Page | 1107

Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies
Titin Ruliana, Ratna Dewi Yanti, Abdurrahman Ahda Naufan, Jumadi Tukmuly

3. Maturity

Ma'arij et al, (2014) stated that the maturity of the bond (maturity) is the date on which the bondholder will receive repayment of the principal or nominal value of the bond it owns. Bond maturity periods vary from 365 days to over 5 years. In general, the longer the maturity of a bond, the greater the level of uncertainty, so the greater the maturity risk. Bonds with shorter ages (Andry, 2005) have less risk, so companies with high bond ratings use shorter bond ages than companies that use longer bond ages. Saiful Arafah's research (Arafah, 2019) shows that the age of bonds affects the bond ratings of property, real estate, and construction companies. This is in line with the results of Aries Veronica's analysis (Veronica, 2015) using a multiple logistic regression analysis tool, which found that bond age has a significant effect on bond ratings. Simultaneously, maturity has a significant effect on bond ratings. The maturity variable in this study uses a dummy variable, where the following measurements are taken: a value of 1 if the bond has a life of one to five years and a value of 0 if the bond has a life of more than five years.

4. Guarantees

Guarantees that exist in bonds can attract investors to own them. This can reassure investors if the company experiences a bond default. If the bonds are secured by high-value assets, the bond rating will be better. One other reason is that by guaranteeing the assets owned by the company for bonds, the company can reduce the risks that will be accepted by the company (Wijayanti et al., 2019).

Saiful Arafah's research (Arafah, 2019) shows that guarantees have no effect on the bond ratings of property, real estate, and construction companies. This study contradicts the results of Arvian Pandutama et al., (2012) showing that bond guarantees have a significant effect on predicting the bond ratings of manufacturing companies in 2007– 2010. The guarantee variable in this study uses the following classification: Value 0 for unsecured bonds, Value 1 for guaranteed bonds.

5. Company Size

Company size is a measure that shows the size of the company. Company size can be measured using total assets, sales, and equity (Andry, 2005) . Small companies have a much greater risk than large companies. Because large companies have large assets to guarantee a bond, large assets minimize the risk of investors having their funds invested in a bond issuing company. Saiful Arafah's research (Arafah, 2019) shows that company size has no effect on the bond ratings of property, real estate, and construction companies. This also occurs in research conducted by Arvian Pandutama (2012) , which shows that company size does not prove to have a significant effect on predicting the bond ratings of manufacturing companies in 2007– 2010. The company size variable is calculated using the following formula: Size = log (total assets)

6. Bond Rating

Bond rating is a measure of quality and security for investors to invest in bonds. Security can be seen in the company's ability to pay principal and loan interest. Investors can obtain information about bond ratings through PT. iPefindoi (Pemeringkat Efeki Indonesia and PT. Kasnici Credit Rating Indonesia). There are many benefits provided by rating bonds, namely being able to minimize conflicts between investors and companies. Companies want all of their bonds to be sold, and investors expect guarantees from a company that is healthy and not losing money. In addition, bond ratings eliminate guarantee costs by company and the cost of analyzing the health condition of a company for investors (Simatupang & Naz' aina, 2022). A bond rating is a signal of a company's performance that is used as a basis for making decisions for users of information. Investors must have the ability to read signals that indicate a possible risk of default (Simatupang & Naz' aina, 2022).

Bonds are attractive to investors (Purwaningsih, 2008) due to their advantages in terms of security when compared to stocks. A good rating not only shows the company's ability to pay off its obligations, but can also show that the company's performance is taking place effectively and efficiently because it is able to manage debt for the progress of the business being carried out.

According to the theory of Brigham and Houston (2010) in (Kustiyaningrum et al., 2016) that: "bond ratings are based on several qualitative and quantitative factors consisting of various ratios, funds, redemption, maturity, regulation, overseas operations and product responsibility" . There is a strong correlation between bond ratings and ratios.

To find out whether a bond investment is safe or not, investors can look at the bond ratings. The bond rating agency in Nusantara is PT Pefindo (Indonesian Securities Rating Agency).

Table 1. Bond Rating issued by Pefindo.

Rating	Ability to meet long-term financial obligations
idAAA	Superior, the highest rating
idAA	Very strong
idA	strong
idBBB	Adequate
idBB	A bit weak in
idB	Weak
idCCC	Vulnerable
idSD	Partially failed
idD	Defaulted (default)

Source: PT Pefindo (Tandelilin, 2010; (Terhadap et al., 2016)

The highest rating is idAAA, which indicates the best quality or that the company has the lowest level of default risk. While the lowest rating classification is idD, which indicates a default company. Bonds rated idAAA to idBBB are included in the investment grade category, while bonds below idBBB are included in the non-investment grade category and are considered speculative for investment (Tandelilin, 2010; Kustiyaningrum et al., 2016)

C. Conceptual Framework

Image 1: Conceptual Framework

D. Hypothesis
Development Based on the theory and previous research, the basis for the development of the proposed hypothesis is that:
1) the debt-to ratio has a significant effect on bond ratings in construction companies.
2) Does the age of bonds have a significant effect on bond ratings for construction companies?
3) Does the guarantee have a significant effect on the bond ratings of construction companies?

4) Does company size have a significant effect on bond ratings for construction companies?
5) Does the debt-to-assets ratio, bond age, collateral, and company size have a significant effect on bond ratings in construction companies?

II. METHODS

A. Type of Research

The approach in this study uses an associative approach. An associative approach is one that uses two or more variables to determine the relationship or influence between one variable and another. An associative approach is taken to determine the relationship between variables debt-to-asset ratio, bond age, collateral, company size, and bond ratings, either partially or simultaneously. The type of data in this study uses quantitative data types, and the data sources in this study use secondary data as data sources. Secondary data is data related to the problem under study, but the data obtained is not directly obtained, namely through intermediaries. Secondary data related to this study uses documentary data in the form of corporate financial reports from PT. Pefindo through the website https://www.pefindo.com and published reports.

B. Population and Sample

The population in this study is composed of construction companies registered at PT. Pefindo in the 2014–2021 research period, totaling four companies. The sample for this research was taken using a purposive sampling technique, which is a method that uses a sampling technique with certain criteria, so that 4 companies were obtained as samples with a research period of 2014– 2021 for annual financial reports.

C. Data Analysis Method

Data analysis techniques in quantitative research use statistical techniques with the help of the IBM SPSS Statistics version 26 for Windows program. The analytical method used in this study is Logistic Regression. The multiple linear regression formula in this study is as follows:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$
Description:
Y = Bond Rating α = Constant
$\beta_1, \beta_2, \beta_3$ = Regression Coefficient X_1 = Debt to Assets Rasio X_2 = Maturity
X_3 = Guarantee
X_4 = Company Size
ε = Error/interfering variable

Before being analyzed, the variables in this study must be tested first using the feasibility test of the logistic regression model. The feasibility test of the logistic regression model includes the overall model fit test, the Hosmer and Lemeshow test, the Nagelkerke R square test, and the classification matrix test.

III. RESULTS AND DISCUSSION

A. Partial Test

The logistic regression model can be formed by looking at the estimated parameter values in the Variables in The Equation. The regression model formed based on the estimated parameter values in the Variables in the Equation is as follows:

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a Debt to Assets	2.043	1.622	1.585	1	0.208	7.711
Maturity	-2.071	4.323	0.230	1	0.632	0.126
Guarantee	-2.143	2.310	0.860	1	0.354	0.117

Company Size	*-0.004*	*0.004*	*1.105*	*1*	*0.293*	*0.996*
Constant	*-156.541*	*127.056*	*1.518*	*1*	*0.218*	*0.000*

Source: Data processed in 2022

Based on Table 1, the logistic regression equation is formed as follows:

$$Bond\ Rating = -156.541 + 2.043\ X_1 - 2.071\ X_2 + 2.143\ X_3 - 0.004\ X_4$$

From the logistic regression equation above, it can be explained as follows:

1) The results of the Wald test between the variable debt to assets ratio have a significant value greater than 0.05, which is equal to 0.208. In addition, the debt to assets ratio variable has a positive regression coefficient of 60 2.043, so the influence of the debt to assets ratio variable in proportion to the debt to assets ratio on bond ratings is not significant in a positive direction. It can be concluded that there is no significant effect of the variable debt-to-assets ratio on bond ratings in construction companies. The results of the Wald test between the maturity variables have a significant value greater than 0.05, which is equal to 0.632. Besides that. The maturity variable has a negative regression coefficient of 2.071, so the effect of the maturity variable on bond ratings is not significant in a negative direction. It can be concluded that there is no significant effect of the maturity variable on bond ratings for construction companies. The results of the Wald test between the guarantee variables have a significant value greater than 0.05, which is 0.354. Besides that, the guarantee variable has a negative regression coefficient of -2.143, so the effect of the guarantee variable on the bond rating is not significant in a negative direction. It can be concluded that there is no significant effect of guarantee variables on bond ratings for construction companies.

2) The results of the Wald test between company size variables have a significant value greater than 0.05, which is 0.293. Besides that. The variable company size has a negative regression coefficient of 0.004, so the effect of the variable company size on bond ratings is not significant in a negative direction. This means that there is no significant effect between company size variables and bond ratings in construction companies.

B. Simultaneous Test

This test was conducted to test whether the independent variables consisting of debt-to-asset ratio, bond age, collateral, and company size simultaneously affect the dependent variable, namely bond ratings. The results of hypothesis testing are carried out by comparing the Omnibus Test of Model coefficients, namely the value, with the probability chi square calculated with an alpha value of 5% (0.05). If the obtained value of the calculated chi square probability is smaller than 0.05, then it can be said that the independent variables simultaneously affect the dependent variable.

Table 2: Simultaneous and Omnibus Tests of Model Coefficients

		Chi-square	*df*	*Sig.*
Step 1	*Step*	*10.974*	*4*	*0.027*
	Block	*10.974*	*4*	*0.027*
	Model	*10.974*	*4*	*0.027*

Source: Data processed in 2022

Table 2 shows a chi-square value of 10.974 with a sig value < a below 0.05. This calculation shows that the debt-to-assets ratio, maturity, collateral, and company size have a significant effect simultaneously on bond ratings.

C. Discussion of Research Results
1. Effect of debt-to-asset ratio on Bond Ratings

The test results using statistics using logistic regression show that the debt-to-asset ratio has an insignificant effect on a company's bond rating. The results of logistic regression testing show that the debt- to-assets ratio in the Variable in The Equation table has a coefficient value of 2.043, a significant level of 0.208, and a Wald statistic in the table of 1.585. With a significant value greater than 0.05, the debt-to-assets ratio has no effect on bond ratings.

The results of this study are not relevant to the results of research conducted by Aries Veronica (2015), and Saiful Arafah (2019), who say the debt-to-asset ratio affects bond ratings. This is because for companies, especially construction companies, having large debts in the company's funding structure can be a big risk in the industry. The reason for H1 being rejected is that the debt-to-assets ratio is partially not taken into account in determining the company's bond rating. These conditions indicate that long-term debt-related obligations do not affect bond ratings, so there are differences between companies that are included in high investment grade and low investment grade. Investors tend to buy bonds because they see the company's reputation, not the debt-to-asset ratio that the company earns.

2. Effect of Bond Age on Bond Rating

The test results using statistics using logistic regression show that the ratio of bond age has no significant effect on a company's bond rating. The results of the logistic regression test show that the bond age in the Variable In The Equation table has a coefficient value in the table of -2.071 with a significant level of 0.632 and a Wald statistic of 0.230. The results of this study are not relevant to the results of research conducted by Aries Veronica (2015) and Saiful Arafah (2019) . This is because bond age is one of the considerations of investors before buying bonds from a company, and PEFINDO takes this into account when assigning a company's bond rating. The reason for rejecting H2 is that statistically, the age of the bonds cannot be used as an indicator that can affect a company's bond rating. This provides evidence that the company's bond life is longer, but the company is said to be able to pay its bonds, so the bond life is not taken into account in the bond rating. Investors tend to buy bonds with ages under 3 years because companies with bonds aged under 3 years are able to pay off their obligations to pay the loan principal at maturity.

3. Effect of Guarantee on Bond Ratings

The results of testing using statistics and logistic regression show that the guarantee ratio does not have a significant effect on a company's bond rating. The results of logistic regression testing show that the guarantee is in the variable. The Equation table has a coefficient value of -2.143, a significant level of 0.354, and a Wald statistic of 0.860. With a significant value greater than 0.05, guarantees have no effect on bond ratings, and the results of this study are relevant to the results of research conducted by Saiful Arafah (2019), which says guarantees have no significant effect on determining bond ratings. This is because for companies, especially construction companies, having a large guarantee on the company's funding structure can be a big risk in the industry. The reason H3 was rejected is because partially collateralized debt is not taken into account in determining the company's bond rating. Bonds guaranteed by special assets and bonds that are not guaranteed by special assets are not taken into account in determining the bond rating. Based on observational data, it was found that most of the bond issuing companies did not guarantee their bonds with special assets. Investors tend to buy bonds because they look at the company's reputation, not what is guaranteed or not guaranteed by the company.

4. The Effect of Company Size on Bond Ratings

The test results using statistics using logistic regression show that the ratio of company size proxied by Size has no significant effect on a company's bond rating. The results of logistic regression testing show that firm size in the Variable The Equation table has a coefficient value of -0.004, a significant level of 0.293, and a Wald statistic of 1.105. With a significant value greater than 0.05, Size has no effect on bond ratings, and the results of this study are not relevant to the results of research conducted by Aries Veronica (2015) that company size has a significant effect on bond ratings. This is because the larger the company, the more it will be known by the public. so that there will be more and more information about the company that can be received by investors.

Saiful Arafah's research (Arafah, 2019) found that company size has no significant effect on determining bond ratings. The reason for rejecting H4 is that company size is not taken into account in determining corporate bond ratings. This may be because to see bond ratings in terms of company size, it is better to look at the terms of its obligations or pay off its obligations, so that no matter how large the total assets of a company are, it will not affect the prediction of bond ratings. Investors tend to buy bonds not in terms of company size but based on the company's reputation.

5. Effect of Debt to Assets Ratio, Bond Age, Guarantee, and Company Size on Bond Ratings
The simultaneous test results (table 2) produce a chi square value of 10.974 with sig 0.027 < 0.05, which means that H5 is accepted. This shows that there is a significant probability of influence between debt to assets ratio, bond age, collateral, and company size on bond ratings.

V. CONCLUSION

Based on the results of testing the data using logistic regression analysis, the conclusions of this study are:
1) The debt-to-assets ratio has no significant effect on the probability of bond ratings because investors tend to buy bonds because they see the company's reputation, not the debt-to-assets ratio obtained by the company.
2) The maturity has no significant effect on the probability of bond ratings because investors tend to buy bonds with ages under 3 years because companies with bonds aged under 3 years are able to pay off their obligations to pay the loan principal at maturity.
3) Guarantees have no significant effect on the probability of bond ratings because investors tend to buy bonds because they look at the company's reputation, not whether it is guaranteed or not.
4) Company size has no significant effect on the probability of bond ratings because investors tend to buy bonds not in terms of company size but based on the company's reputation.
5) The debt-to-income ratio, maturity, guarantee, and company size affect the probability of bond ratings.

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Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies

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ABSTRACT

Purpose: The purpose of this study was to determine and analyze effect of the debt-to-assets ratio, maturity, guarantee, and company size on construction company bond ratings.

Design/methodology/approach: The population and sample of this research is construction companies that publish complete financial reports from 2014 to 2022. Data analysis uses logistic regression analysis.

Findings: The results showed that: 1) Debt to assets ratio has no significant effect on the probability of bond ratings, because investors tend to buy bonds because they see the company's reputation not from the Debt to Assets Ratio obtained by the company; 2) Maturity has no significant effect on bond ratings, because investors tend to buy bonds with ages under 3 years, because companies with maturity under 3 years are able to pay off their obligations to pay the loan principal at maturity; 3) Guarantees have no significant effect on bond ratings, because investors tend to buy bonds because they look at the company's reputation, not from what is guaranteed and not guaranteed to the company; 4) Company size has no significant effect on bond ratings, because investors tend to buy bonds not in terms of company size but from the company's reputation; 5) The debt-to assets ratio, maturity, guarantee, and company size affect bond ratings.

Paper type: Research Paper

Keyword: *Debt-To-Asset Ratio, Bond Age, Guarantees, Company Size, Bond Rating*

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I. INTRODUCTION

A. Introduction
1. Background

The capital market is a means of forming capital and accumulating funds aimed at increasing public participation in directing funds to support national development financing. In its activities, the government has provided various facilities to companies that offer stocks or bonds to the public by providing facilities and also providing regulations so that the interests of the community are guaranteed and that every company that is going to go public is examined for its feasibility. Currently, the only capital market in Indonesia is the Indonesia Stock Exchange (IDX). Adhisyahfitri Evalina Ikhsan, M Nur Yahya & Saidaturrahmi, 2008). There are two types of financial investments in the capital market: investments in certificates of ownership (shares) and investments in debt securities (bonds). Investments in debentures (bonds) are more attractive to investors because they can bring in a fixed income derived from the principal of the bond and interest that will be received periodically at maturity (Adhisyahfitri Evalina Ikhsan, M Nur Yahya & Saidaturrahmi, 2008).

Sources of financing are an important part of the survival of a business, especially for business expansion and as a means to strengthen the company's capital. One form of funding that the company can obtain is by issuing bonds. Bonds are attractive and in demand by investors because they have the advantage that bondholders have first rights over company assets if the company goes into liquidation (Brigham & Huoston, 2010; Barus et al., 2020)

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The development of investment in the bond market has become increasingly attractive in recent years. This is indicated by the increasing value of bond market capitalization in Indonesia in December 2012, which recorded the highest record since 2006 with the achievement of IDR 60.50 trillion. The issuance of corporate bonds in 2011 amounted to IDR 45.93 trillion. Bond issuance until the third week of December 2010 reached IDR 35.897 trillion, an increase of 31.9% compared to last year's achievement of IDR 27.215 trillion (Bapepam-LK, 2012; Veronica, 2015).

To find out whether a bond investment is safe, investors can look at bond ratings. The bond rating agency in Nusantara is PT. Pefindo (Indonesian Securities Rating Agency). Every year, PT Pefindo rates the issuer's bonds and disseminates them both on its website and in other media. PT Pefindo uses various factors to rank issuer bonds (Arafah, 2019). The bond rating agency is an independent institution that provides risk scale rating information, one of which is bond securities, as an indicator of how secure a bond is for investors. This security is shown by a company in paying its obligations or loans.

Several previous studies regarding bond ratings conducted by Veronica (2015) used multiple logistic regression analysis tools and found that profitability, liquidity, company size, debt-to-asset ratio (DAR), and bond age have a significant effect on bond ratings. The results of the study Arafah (2019) tested the effect partially and dominantly using a logistic regression analysis tool and found the result was profitability. growth. DAR and bond age have an effect on bond ratings, and liquidity, collateral, and company size have no significant effect. And one variable that has no significant effect, namely profitability, in determining bond ratings.

This study accommodates previous research by adding collateral variables to be tested and analyzed against bond ratings. This is in accordance with the objectives of this study, which are to test and analyze:
1. The partial effect of Debt to Assets Ratio (DAR), maturity, guarantee, and company size on bond ratings in construction companies;
2. The simultaneous effect of DAR, bond age, collateral, and company size on bond ratings in construction companies.

Based on the background description, the problems in this study can be formulated as follows:
1) Does the debt-to-asset ratio affect the bond ratings of construction companies?
2) Does the maturity affect the rating of bonds in construction companies?
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B. Literature review
1. Bond

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4. Guarantees

Guarantees that exist in bonds can attract investors to own them. This can reassure investors if the company experiences a bond default. If the bonds are secured by high-value assets, the bond rating will be better. One other reason is that by guaranteeing the assets owned by the company for bonds, the company can reduce the risks that will be accepted by the company (Wijayanti et al., 2019).

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property, real estate, and construction companies. This study contradicts the results of Arvian Pandutama et al., (2012) showing that bond guarantees have a significant effect on predicting the bond ratings of manufacturing companies in 2007– 2010. The guarantee variable in this study uses the following classification: Value 0 for unsecured bonds, Value 1 for guaranteed bonds.

5. Company Size

Company size is a measure that shows the size of the company. Company size can be measured using total assets, sales, and equity (Andry, 2005) . Small companies have a much greater risk than large companies. Because large companies have large assets to guarantee a bond, large assets minimize the risk of investors having their funds invested in a bond issuing company. Saiful Arafah's research (Arafah, 2019) shows that company size has no effect on the bond ratings of property, real estate, and construction companies. This also occurs in research conducted by Arvian Pandutama (2012) , which shows that company size does not prove to have a significant effect on predicting the bond ratings of manufacturing companies in 2007– 2010. The company size variable is calculated using the following formula: Size = log (total assets)

6. Bond Rating

Bond rating is a measure of quality and security for investors to invest in bonds. Security can be seen in the company's ability to pay principal and loan interest. Investors can obtain information about bond ratings through PT. iPefindoi (Pemeringkat Efeki Indonesia and PT. Kasnici Credit Rating Indonesia). There are many benefits provided by rating bonds, namely being able to minimize conflicts between investors and companies. Companies want all of their bonds to be sold, and investors expect guarantees from a company that is healthy and not losing money. In addition, bond ratings eliminate guarantee costs by company and the cost of analyzing the health condition of a company for investors (Simatupang & Naz' aina, 2022). A bond rating is a signal of a company's performance that is used as a basis for making decisions for users of information. Investors must have the ability to read signals that indicate a possible risk of default (Simatupang & Naz' aina, 2022).

Bonds are attractive to investors (Purwaningsih, 2008) due to their advantages in terms of security when

compared to stocks. A good rating not only shows the company's ability to pay off its obligations, but can also show that the company's performance is taking place effectively and efficiently because it is able to manage debt for the progress of the business being carried out.

According to the theory of Brigham and Houston (2010) in (Kustiyaningrum et al., 2016) that: "bond ratings are based on several qualitative and quantitative factors consisting of various ratios, funds, redemption, maturity, regulation, overseas operations and product responsibility" . There is a strong correlation between bond ratings and ratios.

To find out whether a bond investment is safe or not, investors can look at the bond ratings. The bond rating agency in Nusantara is PT Pefindo (Indonesian Securities Rating Agency).

Table 1. Bond Rating issued by Pefindo.

Rating	Ability to meet long-term financial obligations
idAAA	Superior, the highest rating
idAA	Very strong
idA	strong
idBBB	Adequate
idBB	A bit weak in
idB	Weak
idCCC	Vulnerable
idSD	Partially failed
idD	Defaulted (default)

Source: PT Pefindo (Tandelilin, 2010; (Terhadap et al., 2016)

The highest rating is idAAA, which indicates the best quality or that the company has the lowest level of default risk. While the lowest rating classification is idD, which indicates a default company. Bonds rated idAAA to idBBB are included in the investment grade category, while bonds below idBBB are included in the non-investment grade category and are considered speculative for investment (Tandelilin, 2010; Kustiyaningrum et al., 2016)

C. Conceptual Framework

Image 1: Conceptual Framework

D. Hypothesis

Development Based on the theory and previous research, the basis for the development of the proposed hypothesis is that:
1) the debt-to ratio has a significant effect on bond ratings in construction companies.
2) Does the age of bonds have a significant effect on bond ratings for construction companies?
3) Does the guarantee have a significant effect on the bond ratings of construction companies?

Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies
Titin Ruliana, Ratna Dewi Yanti, Abdurrahman Ahda Naufan, Jumadi Tukmuly

4) Does company size have a significant effect on bond ratings for construction companies?
5) Does the debt-to-assets ratio, bond age, collateral, and company size have a significant effect on bond ratings in construction companies?

II. METHODS

A. Type of Research

The approach in this study uses an associative approach. An associative approach is one that uses two or more variables to determine the relationship or influence between one variable and another. An associative approach is taken to determine the relationship between variables debt-to-asset ratio, bond age, collateral, company size, and bond ratings, either partially or simultaneously. The type of data in this study uses quantitative data types, and the data sources in this study use secondary data as data sources. Secondary data is data related to the problem under study, but the data obtained is not directly obtained, namely through intermediaries. Secondary data related to this study uses documentary data in the form of corporate financial reports from PT. Pefindo through the website https://www.pefindo.com and published reports.

B. Population and Sample

The population in this study is composed of construction companies registered at PT. Pefindo in the 2014–2021 research period, totaling four companies. The sample for this research was taken using a purposive sampling technique, which is a method that uses a sampling technique with certain criteria, so that 4 companies were obtained as samples with a research period of 2014– 2021 for annual financial reports.

C. Data Analysis Method

Data analysis techniques in quantitative research use statistical techniques with the help of the IBM SPSS Statistics version 26 for Windows program. The analytical method used in this study is Logistic Regression. The multiple linear regression formula in this study is as follows:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$
Description:
Y = Bond Rating α = Constant
β_1, β_2, β_3 = Regression Coefficient X_1 = Debt to Assets Rasio X_2 = Maturity
X_3 = Guarantee
X_4 = Company Size
ε = Error/interfering variable

Before being analyzed, the variables in this study must be tested first using the feasibility test of the logistic regression model. The feasibility test of the logistic regression model includes the overall model fit test, the Hosmer and Lemeshow test, the Nagelkerke R square test, and the classification matrix test.

III. RESULTS AND DISCUSSION

A. Partial Test

The logistic regression model can be formed by looking at the estimated parameter values in the Variables in The Equation. The regression model formed based on the estimated parameter values in the Variables in the Equation is as follows:

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a Debt to Assets	2.043	1.622	1.585	1	0.208	7.711
Maturity	-2.071	4.323	0.230	1	0.632	0.126
Guarantee	-2.143	2.310	0.860	1	0.354	0.117

Company Size	*-0.004*	*0.004*	*1.105*	*1*	*0.293*	*0.996*
Constant	*-156.541*	*127.056*	*1.518*	*1*	*0.218*	*0.000*

Source: Data processed in 2022

Based on Table 1, the logistic regression equation is formed as follows:

$$Bond\,Rating = -156.541 + 2.043\,X_1 - 2.071\,X_2 + 2.143\,X_3 - 0.004\,X_4$$

From the logistic regression equation above, it can be explained as follows:

1) The results of the Wald test between the variable debt to assets ratio have a significant value greater than 0.05, which is equal to 0.208. In addition, the debt to assets ratio variable has a positive regression coefficient of 60 2.043, so the influence of the debt to assets ratio variable in proportion to the debt to assets ratio on bond ratings is not significant in a positive direction. It can be concluded that there is no significant effect of the variable debt-to-assets ratio on bond ratings in construction companies. The results of the Wald test between the maturity variables have a significant value greater than 0.05, which is equal to 0.632. Besides that. The maturity variable has a negative regression coefficient of 2.071, so the effect of the maturity variable on bond ratings is not significant in a negative direction. It can be concluded that there is no significant effect of the maturity variable on bond ratings for construction companies. The results of the Wald test between the guarantee variables have a significant value greater than 0.05, which is 0.354. Besides that, the guarantee variable has a negative regression coefficient of -2.143, so the effect of the guarantee variable on the bond rating is not significant in a negative direction. It can be concluded that there is no significant effect of guarantee variables on bond ratings for construction companies.

2) The results of the Wald test between company size variables have a significant value greater than 0.05, which is 0.293. Besides that. The variable company size has a negative regression coefficient of 0.004, so the effect of the variable company size on bond ratings is not significant in a negative direction. This means that there is no significant effect between company size variables and bond ratings in construction companies.

B. Simultaneous Test

This test was conducted to test whether the independent variables consisting of debt-to-asset ratio, bond age, collateral, and company size simultaneously affect the dependent variable, namely bond ratings. The results of hypothesis testing are carried out by comparing the Omnibus Test of Model coefficients, namely the value, with the probability chi square calculated with an alpha value of 5% (0.05). If the obtained value of the calculated chi square probability is smaller than 0.05, then it can be said that the independent variables simultaneously affect the dependent variable.

Table 2: Simultaneous and Omnibus Tests of Model Coefficients

		Chi-square	*df*	*Sig.*
Step 1	*Step*	*10.974*	*4*	*0.027*
	Block	*10.974*	*4*	*0.027*
	Model	*10.974*	*4*	*0.027*

Source: Data processed in 2022

Table 2 shows a chi-square value of 10.974 with a sig value < a below 0.05. This calculation shows that the debt-to-assets ratio, maturity, collateral, and company size have a significant effect simultaneously on bond ratings.

Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies
Titin Ruliana, Ratna Dewi Yanti, Abdurrahman Ahda Naufan, Jumadi Tukmuly

C. Discussion of Research Results

1. Effect of debt-to-asset ratio on Bond Ratings

The test results using statistics using logistic regression show that the debt-to-asset ratio has an insignificant effect on a company's bond rating. The results of logistic regression testing show that the debt- to-assets ratio in the Variable in The Equation table has a coefficient value of 2.043, a significant level of 0.208, and a Wald statistic in the table of 1.585. With a significant value greater than 0.05, the debt-to-assets ratio has no effect on bond ratings.

The results of this study are not relevant to the results of research conducted by Aries Veronica (2015), and Saiful Arafah (2019), who say the debt-to-asset ratio affects bond ratings. This is because for companies, especially construction companies, having large debts in the company's funding structure can be a big risk in the industry. The reason for H1 being rejected is that the debt-to-assets ratio is partially not taken into account in determining the company's bond rating. These conditions indicate that long-term debt-related obligations do not affect bond ratings, so there are differences between companies that are included in high investment grade and low investment grade. Investors tend to buy bonds because they see the company's reputation, not the debt-to-asset ratio that the company earns.

2. Effect of Bond Age on Bond Rating

The test results using statistics using logistic regression show that the ratio of bond age has no significant effect on a company's bond rating. The results of the logistic regression test show that the bond age in the Variable In The Equation table has a coefficient value in the table of -2.071 with a significant level of 0.632 and a Wald statistic of 0.230. The results of this study are not relevant to the results of research conducted by Aries Veronica (2015) and Saiful Arafah (2019) . This is because bond age is one of the considerations of investors before buying bonds from a company, and PEFINDO takes this into account when assigning a company's bond rating. The reason for rejecting H2 is that statistically, the age of the bonds cannot be used as an indicator that can affect a company's bond rating. This provides evidence that the company's bond life is longer, but the company is said to be able to pay its bonds, so the bond life is not taken into account in the bond rating. Investors tend to buy bonds with ages under 3 years because companies with bonds aged under 3 years are able to pay off their obligations to pay the loan principal at maturity.

3. Effect of Guarantee on Bond Ratings

The results of testing using statistics and logistic regression show that the guarantee ratio does not have a significant effect on a company's bond rating. The results of logistic regression testing show that the guarantee is in the variable. The Equation table has a coefficient value of -2.143, a significant level of 0.354, and a Wald statistic of 0.860. With a significant value greater than 0.05, guarantees have no effect on bond ratings, and the results of this study are relevant to the results of research conducted by Saiful Arafah (2019), which says guarantees have no significant effect on determining bond ratings. This is because for companies, especially construction companies, having a large guarantee on the company's funding structure can be a big risk in the industry. The reason H3 was rejected is because partially collateralized debt is not taken into account in determining the company's bond rating. Bonds guaranteed by special assets and bonds that are not guaranteed by special assets are not taken into account in determining the bond rating. Based on observational data, it was found that most of the bond issuing companies did not guarantee their bonds with special assets. Investors tend to buy bonds because they look at the company's reputation, not what is guaranteed or not guaranteed by the company.

4. The Effect of Company Size on Bond Ratings

The test results using statistics using logistic regression show that the ratio of company size proxied by Size has no significant effect on a company's bond rating. The results of logistic regression testing show that firm size in the Variable The Equation table has a coefficient value of -0.004, a significant level of 0.293, and a Wald statistic of 1.105. With a significant value greater than 0.05, Size has no effect on bond ratings, and the results of this study are not relevant to the results of research conducted by Aries Veronica (2015) that company size has a significant effect on bond ratings. This is because the larger the company, the more it will be known by the public. so that there will be more and more information about the company that can be received by investors.

Saiful Arafah's research (Arafah, 2019) found that company size has no significant effect on determining bond ratings. The reason for rejecting H4 is that company size is not taken into account in determining corporate bond ratings. This may be because to see bond ratings in terms of company size, it is better to look at the terms of its obligations or pay off its obligations, so that no matter how large the total assets of a company are, it will not affect the prediction of bond ratings. Investors tend to buy bonds not in terms of company size but based on the company's reputation.

5. Effect of Debt to Assets Ratio, Bond Age, Guarantee, and Company Size on Bond Ratings

The simultaneous test results (table 2) produce a chi square value of 10.974 with sig $0.027 < 0.05$, which means that H5 is accepted. This shows that there is a significant probability of influence between debt to assets ratio, bond age, collateral, and company size on bond ratings.

V. CONCLUSION

Based on the results of testing the data using logistic regression analysis, the conclusions of this study are:

1) The debt-to-assets ratio has no significant effect on the probability of bond ratings because investors tend to buy bonds because they see the company's reputation, not the debt-to-assets ratio obtained by the company.
2) The maturity has no significant effect on the probability of bond ratings because investors tend to buy bonds with ages under 3 years because companies with bonds aged under 3 years are able to pay off their obligations to pay the loan principal at maturity.
3) Guarantees have no significant effect on the probability of bond ratings because investors tend to buy bonds because they look at the company's reputation, not whether it is guaranteed or not.
4) Company size has no significant effect on the probability of bond ratings because investors tend to buy bonds not in terms of company size but based on the company's reputation.
5) The debt-to-income ratio, maturity, guarantee, and company size affect the probability of bond ratings.

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Effect of Debt-to-Asset Ratio, Maturity, Guarantees, and Company Size on Bond Ratings in Construction Companies
Titin Ruliana, Ratna Dewi Yanti, Abdurrahman Ahda Naufan, Jumadi Tukmuly

Management Audit of Operational Decisions in the Financial Function of PT. Rajawali Nusindo Samarinda

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ABSTRACT

Purpose: This study aims to conduct a management audit of the financial function and make ideas or recommendations to PT. Rajawali Nusindo Samarinda.

Design/methodology/approach: Observation, interviews, and questionnaires were used to obtain data from the relevant management. A checklist on the financial function management audit working paper was utilized as an analytical instrument in a qualitative descriptive manner.

Findings: According to the research findings, the operational decision-making function resulting from analytical calculations is 77% for effective criteria, 100% for efficiency, and 86% for economic metrics. The findings of this study indicate that the company's financial function is operating effectively, efficiently, and inexpensively.

Paper type: Research Paper

I. INTRODUCTION

1. Introduction

Indonesian firms are reasonably competitive despite recovering economically from the COVID-19 pandemic's drop in financial conditions. Several companies survived and even expanded sales during the pandemic due to product innovation that was of public interest. Audit actions are required to determine the efficiency and correctness of the organization's financial management functions. Management must also be audited to assess effectiveness, efficiency, and operational economy.

Management audits are visible in financial reports produced by the finance unit. It evaluates the company's financial management, operational activity, and resource utilization. A management audit examines a company's performance, efficiency, and financial standing. The auditor will make suggestions and recommendations to the financial department to help the organization meet its objectives.

The head of the company branch delegated many tasks to financial function personnel, such as financial managers and staff, to carry out the firm's operational activities following the objectives. Since providing food and plantation goods to farmers, the company's operating activities have risen. It previously solely worked in the pharmaceutical and medical equipment industries. These actions necessitate increasing sales and decreasing operational costs for the organization to continue program activities. Unfortunately, this leads to inefficiency and ineffectiveness in the financial function.

Based on evidence acquired throughout the audit stages, previous research conducted by Astuty Hasti in 2016 titled "Management Audit of the Financial Function at PT. PLN (Persero) Makassar Branch Office" determined that the company had not been managed successfully. It demonstrates that cash flow and financial management have not been appropriately applied. Cash receipts and disbursements are insufficient and

ineffective. To determine their efficiency and effectiveness, the researchers conducted tests to evaluate management audits of Makassar Branch's financial functions.

According to a prior study, management audits examine a company's level of effectiveness and efficiency. Management audit operations are measured by their effectiveness, efficiency, and cost-effectiveness. The audit aims to provide ideas, recommendations, or findings from PT. Rajawali Nusindo Samarinda's financial function.

Researchers are interested in studying financial functions' efficacy, efficiency, and economics in accomplishing organizational goals. "Management Audit of Operational Decisions in the Financial Function at PT. Rajawali Nusindo Samarinda" is the title of this study.

A. Basic Theory
1. Management Audit

According to Bayangkara (2015:2), "Management auditing is an evaluation of the efficiency and effectiveness of company operations." According to Ardianingsih (2018:4), an Operational Audit (Management Audit) typically conducts systematic, organized, and objective testing of a company to assess the utilization of resources in providing public services efficiently and effectively to meet stakeholder expectations and provide recommendations for improving company performance. According to the above explanation, management auditing is a supervisory activity that involves interviewing the company's operational policies. It results in the final evaluation of a checking and evaluating process to identify the efficiency, effectiveness, and economics of the company's operating methods.

2. Financial Audit Function

According to Bayangkara (2015:327), a financial function audit is a systematic, periodic, recorded review and assessment of decision-making and all policies in managing the company's financial resources. If the economic function is not present, all activity may halt. A well-managed financial process can help with production, marketing, research, and human resource development.

3. Effective, Efficient and Economical

According to Bayangkara (2015:17), effectiveness is a company's level of success in fulfilling its aims. According to Bayangkara (2015:16), "Efficiency is related to how a company carries out operations so that optimal use of its resources is achieved." According to Bayangkara (2015:15), "economics relates to how the company obtains resources for each activity."

B. Hypothesis
19. PT. Rajawali Nusindo Samarinda's financial function activities are ineffective in achieving company goals.
20. The financial function activities at PT. Rajawali Nusindo Samarinda is inefficient.
21. The financial function activities at PT. Rajawali Nusindo Samarinda are not economical.

II. METHODS

A. Operational Definition

Management audit evaluates the efficiency and effectiveness of PT. Rajawali Nusindo Samarinda's operations.

A financial function audit is an analysis and assessment carried out systematically, periodically, and documented on decision-making and all management policies of PT. Rajawali Nusindo Samarinda's financial resources.

Effectiveness is the level of success of the company in achieving its goals.

Efficiency relates to the company's operations to optimize its resources.

Economical relates to how PT. Rajawali Nusindo Samarinda obtains resources for each activity.

B. Research Reach

This research was at PT. Rajawali Nusindo Samarinda at Jalan A.Wahab Syahranie No.50, Sempaja Selatan, North Samarinda District, Samarinda City, East Kalimantan 75243. It analyzed the level of effectiveness, efficiency, and economics of PT. Rajawali Nusindo Samarinda with a management audit in achieving its goals.

C. Data Collection Techniques
1. Fieldwork research focuses on the research object to obtain the necessary data. There are three field research studies, namely:

a. Observation
It collects data by observing directly in the field. This activity is not just seeing but also recording, calculating, measuring, and noting existing events.
b. Interview
Researchers interviewed employees or managers in the finance department to obtain information about the financial function.
c. Questioner
Researchers provide a list of questions to respondents directly or indirectly.
22. Library research is a type of research that collects data through documentation studies to obtain secondary data in the form of documents and information related to this research. This research data was from various supporting literature books related to the problems discussed.

D. Analysis Tools

The analytical tool for this research is the Checklist (√) technique using the Qualitative Descriptive method.

Based on data analysis with the help of the checklist method, the researcher next assessed the financial function's effectiveness, efficiency, and economics by determining the indicators used to determine audit results. According to Rob Rider in Agoes (2013:168), they are:

  a. Economical
  Reviewers can consider several things as follows:
1) Follow general operational activity practices.
2) Accurate number of staff on duty in carrying out essential functions.
3) Accuracy of inventory in the company.
4) Use equipment at the right price (no more expensive than necessary).
5) Reduce the use of unused resources.
  b. Efficiency.
  Regarding responsibility for using operational methods for minimum expenditure, reviewers can see several things as follows:
1) Compatibility of manual and computerized procedures.
2) Efficiency of operating systems and processes.
3) No duplication of work.
4) There are no unimportant work stages.
  c. Effectiveness
  Related to achieving organizational results or benefits based on organizational goals and objectives or effectiveness. Reviewers can assess or see several things as follows:
1) Assessment of the achievement of organizational goals and objectives.
2) Evaluation of the adequacy of the management system in measuring effectiveness.
3) Determine the extent of the desired results.
4) Identify factors for satisfactory performance results.

Analyzing audit results regarding "yes" and "no" answers is carried out on a Likert scale and concluded based on percentages referring to Riduwan (2013:15):

$$P = \frac{f}{n} \text{ x } 100\%$$

Where:
P   = Percentage
f   = The number of respondents' answers is based on indicators
n   = Highest total answer score based on indicators

After the calculations have been calculated, the answers from each Checklist table will be obtained in the form of percentages, which will be grouped into the following criteria according to Riduwan (2013:20):

1. Table of Percentage of Effective Indicator Criteria

Effective

No	Criteria	Interpretation
1	0% - 20%	Very ineffective
2	21% - 40%	Ineffective
3	41% - 60%	Fairly Effective
4	61% - 80%	Effective
5	81% - 100%	Very effective

Source: Riduwan (2013:20)

2. Table of Percentage of Efficient Indicator Criteria

Efficient

No	Criteria	Interpretation
1	0% - 20%	Very Inefficient
2	21% - 40%	Inefficient
3	41% - 60%	Fairly Efficient
4	61% - 80%	Efficient
5	81% - 100%	Very Efficient

Source: Riduwan (2013:20)

3. Table of Percentage of Economical Indicator Criteria

Economical

No	Criteria	Interpretation
1	0% - 20%	Very Uneconomical
2	21% - 40%	Uneconomical
3	41% - 60%	Fairly Economical
4	61% - 80%	Economical

5	*81% - 100%*	*Very Economical*

Source: Riduwan (2013:20)

E. Hypothesis test
1. The hypothesis is accepted if the financial function activities at PT. Rajawali Nusindo Samarinda is ineffective in achieving company goals. On the other hand, it is rejected if the financial function activities at PT. Rajawali Nusindo Samarinda effectively achieves company goals.
2. The hypothesis is accepted if the financial function activities at PT. Rajawali Nusindo Samarinda is inefficient in achieving company goals. On the other hand, it is rejected if the financial function activities at PT. Rajawali Nusindo Samarinda efficiently achieves company goals.
3. The hypothesis is accepted if the financial function activities at PT. Rajawali Nusindo Samarinda is not economical in achieving company goals. On the other hand, it is rejected if the financial function activities at PT. Rajawali Nusindo Samarinda is economical to achieve company goals.

III. RESULTS AND DISCUSSION

A. Research Results
Calculation and analysis of audit results related to "yes" and "no" answers are carried out on a Likert scale and concluded based on percentages according to Riduwan (2013:15), namely:

$$P = \frac{f}{n} \text{ x } 100\%$$

1. Financial Management Organizational Audit Program
   Effective
   $$P = \frac{3}{4} \text{ x } 100\% = 75 \text{ \%}$$
   Efficient
   $$P = \frac{2}{2} \text{ x } 100\% = 100 \text{ \%}$$
   Economical
   $$P = \frac{2}{2} \text{ x } 100\% = 100 \text{ \%}$$
   Based on the results of the checklist on financial management, 75%, 100%, and 100% were obtained for the effectiveness, efficiency, and economic indicators. The checklist results show that financial management is effective, efficient, and economical.
2. Operational Policy Audit Program
   Effective
   $$P = \frac{3}{4} \text{ x } 100\% = 75 \text{ \%}$$
   Efficient
   $$P = \frac{6}{7} \text{ x } 100\% = 85 \text{ \%}$$
   Economical
   $$P = \frac{3}{4} \text{ x } 100\% = 75 \text{ \%}$$
   Based on the operational policy checklist, 75%, 85%, and 75% were obtained for effective, efficient, and economic indicators, respectively. The results prove that operational policies are effective, efficient, and economical.
3. Funding Policy Audit Program
   Effective
   $$P = \frac{1}{1} \text{ x } 100\% = 100 \text{ \%}$$
   Efficient
   $$P = \frac{2}{2} \text{ x } 100\% = 100 \text{ \%}$$
   Economical
   $$P = \frac{1}{1} \text{ x } 100\% = 100 \text{ \%}$$

Based on the funding policy checklist results, 100% results were obtained for effective, efficient, and economic indicators. Calculation of checklist results shows that operational policies are effective, very efficient, and economical.

B. Hypothesis test

The percentage of each point in each questionnaire that received a "yes" answer can be seen in the table below:

Table 4.

No	Recapitulation of Research Results	Percentage	Result
1	Effective	77%	Effective
2	Efficient	100%	Very efficient
3	Economical	86%	Very economical

Source: Data processed in 2023

The percentage of the overall results of the analysis calculation of 77% means that the financial function of PT. Rajawali Nusindo Samarinda can be said to be effective, and the first hypothesis is rejected.

The overall results of the 100% analysis calculation show that the financial function is very efficient, and the second hypothesis is rejected.

The overall analysis calculation result of 86% proves that the financial function runs very economically, and the third hypothesis is rejected.

V. CONCLUSION

A. Conclusions

Based on the results of a management audit with the scope of financial functions and operational decisions of PT. Rajawali Nusindo Samarinda, researchers can draw the following conclusions:

1. Where the financial management organization has the correct organizational structure, operational decisions in the financial function have been carried out efficiently. Duties, authority, and obligations have been meticulously stated and documented.
2. PT. Rajawali Nusindo Samarinda's financial function can also be very efficient because operating standards and procedures have been adequately socialized. It comes with measures of success, documentation, reporting, and evaluation for each individual and group in the financial management organization.
3. The financial function of PT. Rajawali Nusindo Samarinda can be said to be very economical. The financial management objectives have been formulated, documented, and socialized. In achieving these goals, the company also creates programs and activity plans. The percentage of the overall checklist table for the financial function shows that its implementation is following the established criteria. The author states that it is very economical, referring to the book of Bayangkara (2015), although several things still need improvement.

B. Suggestions

Researchers provide helpful suggestions for improving the shortcomings and weaknesses found in financial function activities. The recommendations put forward by researchers are as follows:

1. Branch heads should carry out investments individually so that the allocated funding is more economical and the results are maximum.
2. PT. Rajawali Nusindo Samarinda should provide policies that motivate customers to pay their receivables early, such as giving discounts, bonuses for specific items, etc.
3. PT. Rajawali Nusindo Samarinda should continue to apply inventory limit provisions and carry out min-max inventory calculations immediately so that stockpiling and inventory shortages do not occur.
4. Reference for future researchers in analyzing management audits in the financial function.

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Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products

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ABSTRACT

Purpose: The development of information technology today is encouraging various significant changes in human life, including in the world of business and business.

Design/methodology/approach: Used a qualitative research method with a descriptive approach. Qualitative research is intended to understand phenomena related to what is experienced by research subjects, such as behavior, perceptions, motivations, and actions in a holistic manner.

Findings: Buying and selling transactions that used to be conventional with physical stores and a face to face system have now changed to digital or online based with a screen to face system. More and more businesses are providing products and services online without having to have a physical shop like conventional businesses in general. An online-based shop, also known as an online shop, is a business where consumers can buy products or services through an internet-based application or platform, without having to come to the shop and transact directly with the seller. However, online product and service transactions, especially online shops on social media (not via marketplace platforms) require the establishment of mutual trust between buyers and sellers. This condition is a challenge for online shops to be able to create a good brand image in order to gain the trust of consumers, thereby creating brand awareness. Therefore, in an effort to increase product sales, brand awareness is needed from consumers, so that business people can respond to market needs according to current developments and continue to survive in the midst of increasingly competitive business competition.

Paper type: Research Paper

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I. INTRODUCTION

The recent development in the field of information technology, which has entered the era of the 4th industrial revolution and is on the verge of the era of society 5.0, has driven significant changes in almost every aspect of human life, including the world of business. Transactions that were once conventional, conducted through physical stores and face-to-face systems, have now shifted to digital or online-based transactions with screen-to-face systems

An increasing number of businesses are providing products and services online without the need for a physical store, unlike conventional businesses. An online store, also known as an Online Shop, is a business where consumers can purchase products or services through internet-based applications or platforms, without the need to visit a physical store and transact directly with the seller. In contrast to conventional stores where the buying and selling process is conducted face-to-face between the seller and the buyer, the online shop system carries out the buying and selling process through online communication using electronic devices, including computers /laptops, tablets, or smartphones connected to internet access services.

According to the 2021 E-Commerce Survey conducted by the Central Statistics Agency (BPS, 2021, 9), the total number of online businesses in Indonesia in 2021 reached 2,361,423 businesses. NielsenIQ (CNNindonesia,

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1121

2021) recorded that the number of consumers in Indonesia who shopped online in 2021 reached 32 million people. This figure represents an 88% increase compared to 2020, when it was only 17 million people.

Based on the 2022 Online Shopping Survey conducted by dataindonesia.id (2022, 3 & 6), which involved 334 respondents from 20 provinces across Indonesia, the results show that the biggest reason, at 53.7%, for respondents to shop online is to save time and energy. Meanwhile, another 25.1% do so because the online system makes it easier for them to compare prices between different stores.

The survey results also indicate that 51.3% of the respondents can shop online up to 3 times a month. The generation that shops online the most includes 44.1% of millennials, 34.5% of generation X, and 34.2% of generation Z..

According to a survey conducted by Ginee (2021), the products most frequently purchased through Online Shops in 2021 were fashion and accessories at 20.4%, mobile phone credit and vouchers at 19.7%, health and beauty products at 17.7%, food at 11.7%, and household appliances at 10.7%. This indicates that purchases of fashion and accessories still hold the top position as the most preferred products by consumer.

It is undeniable that online buying and selling transactions open up opportunities for fraud because the lack of face-to-face interaction between the seller and the buyer creates a greater risk. Therefore, online purchasing transactions, especially on social media-based Online Shops (not through marketplace platforms), greatly depend on the establishment of mutual trust between the buyer and the seller.

This condition certainly poses its own challenge for Online Shops to create a good brand image in order to gain consumer trust. Brand image is a description of consumers' associations and beliefs regarding a particular brand. The formation of a good brand image will lead to the creation of brand awareness in consumers. According to Keller (in Ameliawaty & Halilah, 2017, 65), brand awareness is the brand's ability to come to mind when consumers are thinking about a particular product and how easily the name can be recalled or remembered. Brand awareness can be generated through the use of the brand name itself, logo, packaging, and slogan used by a company to introduce or inform about its products.

"Brand awareness has a significant impact on consumer decision-making when purchasing a product, as it reflects the consumer's awareness. Thus, the higher the individual's awareness of the existence of a specific brand (branding awareness), the greater the likelihood that consumers will purchase products offered by that brand.

In an effort to enhance brand awareness as intended, marketing strategies are needed to address the increasingly complex market demands and to be able to survive in the midst of increasingly competitive business competition. Therefore, innovative business strategies are required that can accommodate market criteria through the utilization of various advanced means and infrastructure in line with the progress of the times.

In the midst of the booming online business, marketing approaches have also shifted towards the same direction, which is a marketing system using digital tools, also known as digital marketing. Digital-based marketing is a marketing method conducted with the assistance of digital instruments, namely the internet and its associated applications, as well as technical support equipment, which enables the creation of a network or connectivity among multiple parties. In this case, it connects producers/sellers with consumers without being constrained by distance, time, or location.

The most common application used in digital marketing is social media, which serves as a platform for promoting and marketing products or services to be marketed. This type of marketing is quite prominent and effective, supported by the high usage of the internet and social media, both globally and specifically in Indonesia.

The most common application used in digital marketing is social media, which serves as a platform for promoting and marketing products or services to be marketed. This type of marketing is quite prominent and effective, supported by the high level of internet and social media usage, both globally and specifically in Indonesia.

In response to this situation, in mid-2016, Instagram officially announced the addition of business features to facilitate Online Shops in promoting products or services and interacting with consumers. Through these business features, uploaded product photos will appear attractive, and posts can also be automatically linked to other social media platforms, such as Facebook and Twitter.

Tikacollectionid, as one of the Online Shops in Jakarta specializing in Muslim fashion, particularly the sale of mukena products, has so far marketed its products through the Instagram social media platform. Digital marketing efforts are carried out by uploading product photos, expanding the market reach through Instagram Ads (paid ads on Instagram), and using influencer endorsement systems. This involves advertising or promotions endorsed by public figures or celebrities who have recognition, trust, and respect from many people.

However, despite this, considering the increasingly intense business competition and the presence of many other online shops operating in the same field, Tikacollectionid must be able to implement digital marketing extensively and consistently. This is to increase consumer/candidate consumer brand awareness, which will ultimately impact the sales of fashion products on Tikacollectionid.

Based on the explanation provided, an analysis is conducted on the implementation of digital marketing on Tikacollectionid's Instagram to enhance brand awareness, with the goal of increasing product sales.

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1122

A. Literatur Review

23. Johari Window Model

Joseph Luft and Harrington Ingham developed the concept of the Johari Window as a representation of how an individual relates to others, depicted as a window consisting of four matrices (as described in Arouf & Aisyah, 2020, p. 37), namely: (a) Open area, referring to a state where an individual is open to themselves as well as to others. In this area, a person is open about their feelings, characteristics, awareness, behavior, and motivation towards others. (b) Blind area, referring to information about oneself known by others but not by oneself. The Blind area is a condition where others can understand a person's nature, feelings, thoughts, and motivation, but the person cannot understand themselves; (c) Hidden area, referring to information about oneself known by oneself but not by others. The Hidden area is a situation where an individual has the ability to conceal or keep certain things that are considered unnecessary for public disclosure to others; and (d) Unknown area, referring to aspects of oneself that are unknown both to oneself and others. The Unknown area can lead to ineffective communication, potentially causing misunderstandings and issues.

24. Brand Awareness

According to Keller (in Anik and Eka, 2018, p. 192), brand awareness is related to the strength of brand attachment in consumers' memory, which can be measured as the consumer's ability to identify the brand under different conditions.

Kartajaya (in Asri and Khadafi, 2018, p. 272) defines brand awareness as the potential customer's ability to recognize or remember a brand as part of a specific product category.

As mentioned in Durianto, et al. (2017, p. 55), there are four levels of brand awareness, which consist of: (a) Unaware of brand, the lowest level where consumers are not aware of a brand's existence; (b) Brand recognition, the minimal level where recognition of a brand reappears after being reminded with assistance; (c) Brand recall, the ability to recall a brand without assistance; and (d) Top of mind, where a brand is the first one mentioned by a consumer or the first to come to a consumer's mind. In other words, it is the primary brand among various brands in a consumer's mind.

The indicators used to measure brand awareness, adapted from a study conducted by Dhurup, Mafini, and Dumasi (in Gima and Emmanuel 2017, p. 3), include: (a) Brand recall, which is how well consumers can remember when asked which brands they recall; (b) Brand recognition, which is how well consumers can recognize the brand in a specific category; (c) Purchase decision, which is how likely consumers are to consider a brand as an alternative when they are about to buy a product or service; and (d) Consumption, where consumers purchase a brand because it is already top of mind for them.

25. Digital Marketing

According to Lane (2008, in Widyana & Batangriyan, 2020, p. 2), digital marketing is the promotion of products and services using digital distribution channels. This includes digital or online advertising that delivers marketing messages to customers.

According to Coviello et al. (in Fawaid, 2017, p. 109), digital marketing is the use of the internet and other interactive technologies to create and connect a dialogue between companies and identified consumers. They also argue that e-marketing is a part of e-commerce.

According to Morissan (in Hidayah, 2018, pp. 24-26), digital marketing aims to disseminate information, create awareness, conduct market research, build perception, improve service, and enhance distribution.

In a simple manner, the steps for implementing digital marketing can be done through (Azkiya, 2021): (a) Implementing SEO (Search Engine Optimization); (b) Using Pay Per Click (PPC) Advertising; (c) Content marketing; (d) Email marketing; and (e) Influencer marketing.

26. STP Model (Segmentation, Targeting, and Positioning)

The STP model is one of the most popular and widely used marketing models. The STP model is an approach used to develop messages and marketing strategies that are appropriate for the segmentation or target market within a specific group of people. The STP model includes: (a) Segmentation, which is the process of dividing the market into groups of buyers distinguished by their different needs, characteristics, and behaviors with varying product requirements (Lupiyoadi and Hamdani, in Hidayah, 2018, p. 10); (b) Targeting, which is the effort to determine the target market. Selecting the right target market can help determine the appropriate activities to apply to the previously established segmentation; and (c) Positioning, which involves positioning or determining the product's position among similar products in the market.

II. METHODS

We used a qualitative research method with a descriptive approach. Qualitative research is intended to understand phenomena related to what is experienced by research subjects, such as behavior, perceptions,

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1123

motivations, and actions in a holistic manner. This is accomplished by creating descriptions in the form of words and language in a specific, natural context using various natural methods (Moleong 2017:6).

The descriptive approach, on the other hand, involves depicting the state of a specific object or event based on visible facts or as they naturally appear, followed by efforts to draw general conclusions based on these historical facts.

In this research, there were 12 informants, including two from Tikacollectionid, consisting of one Management Level (decision-maker) who is also involved in Marketing, and one Administrator. The remaining 10 informants were Tikacollectionid product buyers. Data collection was carried out through in-depth interviews and documentation.

III. RESULTS AND DISCUSSION

A. Tikacollectionid Brand Awareness

The process of building Tikacollectionid brand awareness is carried out using the platform. Referring to the Johari Window concept, the notification mentioned is an effort to inform the Tikacollectionid brand to the public. This way, the Tikacollectionid brand, which was initially in the hidden area quadrant (known to self, not known to others), can enter the open area quadrant (known to self, known to others).

In other words, making Muslim fashion products under the Tikacollectionid brand, which were initially known only within the Tikacollectionid business circle, known to the general public. One of the methods to achieve this is by increasing brand awareness through digital marketing strategies on Instagram.

Tikacollectionid, as a business in the Muslim fashion industry, can be considered to have a significant place in the minds of buyers. Out of the 10 informants interviewed, 7 of them stated that when discussing Muslim fashion, the first brand that comes to their mind is Tikacollectionid. One informant, who has purchased 40 products, indeed has a high level of brand awareness regarding Tikacollectionid, where Tikacollectionid is the first brand that comes to mind when discussing Muslim fashion in Indonesia.

Referring to the Brand Awareness Theory in Durianto, et al. (2017, 55), based on interviews with 10 informants who are buyers of Tikacollectionid fashion products, 7 of them have a high level of brand awareness towards Tikacollectionid. They are at the top of mind level, which means Tikacollectionid is the brand that comes to their mind first or is the first to appear in their thoughts.

In other words, Tikacollectionid is the primary brand among various brands in the minds of these consumers. The other 3 informants have brand awareness of Tikacollectionid at the brand recall level, where customers can recall the brand without assistance and influence them to seek product references for prayer garments (mukena) and hijabs until they make purchases from Tikacollectionid.

Particularly in the digital marketing system, the success of brand awareness can be measured by the reactions given by consumers on online business applications and platforms. The measurement of Tikacollectionid consumer brand awareness is done through online-based indicators, including social media reach, which is the content reach based on advertising efforts, and brand impressions, which involve engagement, clicks, and views of product uploads and advertisements on the Instagram social media platform.

Referring to the study by Durianto, et al. (2017, 55) on brand awareness, it can be concluded that, in general, the Tikacollectionid brand has achieved the brand recall level. Customers can recall the brand without assistance and influence their psychological side to seek product references for prayer garments (mukena) and hijabs, ultimately leading to purchases from Tikacollectionid.

B. STP Analysis (Segmentation, Targeting, Positioning)

In the digital marketing technique on Instagram, Tikacollectionid divides its audience into several segments, namely demographic segmentation, behavioral segmentation, and psychographic segmentation. Therefore, Tikacollectionid segmentation includes female consumers, teenagers to young adults, with an interest in fashion, and who use hijabs or prayer garments (mukena) for religious purposes.

Tikacollectionid utilizes behavioral segmentation, especially variables related to general internet usage tendencies and specific Instagram usage tendencies. This is linked to the effectiveness of the marketing strategy chosen by Tikacollectionid, which focuses on digital marketing efforts on Instagram.

The selection of these segments aims to narrow down the characteristics of the desired consumers, making the target market more precise.

Determining Tikacollectionid's target market is based on the evaluation of the segmentation groups and the predetermined segmentation variables. As a result, the targeted market consists of women aged 17-50, with middle to upper-income levels, who are active Instagram users. Nevertheless, this targeting does not rule out the possibility of consumers with characteristics outside of this target.

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1124

The chosen target groupings by Tikacollectionid are integrated and oriented toward consumers' influence on technology and the internet, particularly Instagram. This is done considering that all marketing and product sales activities of Tikacollectionid are conducted digitally (online).

Tikacollectionid offers a variety of series of prayer garments with designs that combine natural beauty with modern aesthetics, providing unique and non-generic designs. These products use premium quality materials, including rayon, polyester, satin, and premium brocade. For some specific series, Tikacollectionid also utilizes exclusive packaging Equipped with a hardbox (box), creating an exclusive and luxurious impression.

To facilitate consumers and potential consumers, Tikacollectionid opens communication channels through various online platforms and channels, such as comment sections and Direct Messages (DM) on Instagram, chatting via WhatsApp, and through communication features on the Tokopedia marketplace.

C. Marketing Mix Analysis
1. Product

The products marketed by Tikacollectionid include: (a) Aisha Series, which is an adult-sized prayer garment made of satin brocade material in turquoise green; (b) Amira Series, which is an adult-sized prayer garment made of plain rayon cotton and available in 8 color options; (c) Ana Series, which is an adult-sized prayer garment made of dobby material in light pink; (d) Kamila Series, which is an adult-sized prayer garment made of satin material and available in black and broken white colors; (e) Nadya Series, which is a prayer garment for adults and teenagers made of armani silk with motifs and available in light purple; (f) Rafa Series, which is an adult-sized prayer garment made of satin and brocade materials, and available in various color options; and (f) Azzura Hijab, which is an adult-sized hijab available in various color options.

2. Price

Tikacollectionid sets the selling price of products with a fixed price system, which means the pricing is final and not negotiable. This is done to make it easier for consumers to know the price and to ensure transaction efficiency.

Price List of Tikacollectionid Products

No	Product Category	Price
1	Aisha Series	Rp1.850.000,-
2	Amira series	Rp550.000,-
3	Ana Series	Rp350.000,-
4	Kamila Series	Rp590.000,-
5	Nadya Series	Rp1.350.000,-
6	Rafa Series	Rp1.350.000,-
7	Azzura Hijab	Rp115.000,-

3. Place/Distribution

Officially, Tikacollectionid is located in South Jakarta. However, this address is not a physical store because the buying and selling process is conducted online, both through Instagram with the account @tikacollectionid and the Tokopedia marketplace with the store Tika Collection ID. This address is used for processing purchases, packing sold products, and preparing product deliveries to the buyer's address.

4. Promotions

Digital marketing activities are carried out primarily through Instagram, which is the main marketing communication tool for Tikacollectionid. Promotional activities play a crucial role in creating awareness among

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1125

the target market regarding the products offered by Tikacollectionid. The digital platforms used by Tikacollectionid include the social media platform Instagram, instant messenger WhatsApp, and the Tokopedia marketplace.

On social media, Tikacollectionid utilizes Instagram to promote its products. Through the Instagram account named @tikacolecctionid, various promotional and marketing activities are conducted to introduce products, provide information about discounts during specific periods, share product-related testimonials and customer satisfaction, and engage in interactive two-way communication with customers and potential consumers.

In addition to social media, Tikacollectionid also uses the instant messenger application WhatsApp, with the number 081345296039. Instant messenger is used as a two-way communication medium to facilitate the buying and selling process and transactions. It also serves as a platform for providing information about new products, discounts, and as a customer service channel to address consumer inquiries.

To expand its market reach, Tikacollectionid has also opened a store on the Tokopedia marketplace with the store name Tika Collection ID, which can be found at the link https://tokopedia.link/EBHKcKEhHyb.

Regarding its digital marketing strategy, Tikacollectionid focuses on leveraging the Instagram social media platform. The increased popularity of online shops, especially since the COVID-19 pandemic limited people's mobility, has been harnessed by Tikacollectionid to introduce and market Muslim fashion products such as prayer garments (mukena) and hijabs through an online shop system. In addition to regularly uploading products, Tikacollectionid also consistently runs advertisements on Instagram, specifically Instagram Advertising (Instagram Ads). These advertisements come in the form of photos and videos containing information about the products being offered.

Tikacollectionid's choice of Instagram as its primary marketing platform is believed to be based on four reasons. First, Instagram has a very broad social media reach, allowing it to reach people without geographical limitations. Second, the ad categories can utilize filtering systems based on the segmentation and target market being pursued, making advertisements more precise. Third, Instagram provides various editing features to enhance the visual appeal of posts. Fourth, Instagram has a higher user count compared to other social media platforms, leading to increased user engagement.

The high level of competition in the online shop business for Muslim fashion products demands that Tikacollectionid innovate and formulate effective digital marketing strategies. Tikacollectionid's efforts in digital marketing on Instagram include regularly uploading new products on Instagram feeds and stories, consistently running ads (Instagram Ads), and collaborating with influencer endorsements.

To promote the brand in the competitive landscape of online shops, Tikacollectionid strives to consistently upload products, collaborate with influencer endorsements, engage in online advertising, and create informative content, allowing potential consumers to gain a detailed understanding of Tikacollectionid's products.

In uploading content and advertisements on social media, Tikacollectionid emphasizes four key aspects. Firstly, careful attention is given to the type of content to be promoted. Secondly, posts must contain detailed information about the products being offered. Thirdly, products are consistently uploaded on social media and marketplaces, with reasonably spaced intervals. Fourthly, digital marketing is tailored to the characteristics of the segmentation, such as gender, age range, communities, hobbies, and more.

Filtering characteristics within Instagram's segmentation can make promotions more precise, as advertisements are exclusively presented to users with predetermined characteristics. In other words, advertisements become highly targeted and not wasted, as they only reach those with matching characteristics. The positive impact of character-centric digital marketing opens up the market's reach as widely as possible, unrestricted by geographical boundaries.

In addition to uploading advertisements in various formats such as photos, videos, and reels, Tikacollectionid also conducts digital marketing through influencers to provide endorsements of Tikacollectionid's products. There are four steps in Tikacollectionid's digital marketing through influencer endorsement. Firstly, research is conducted on influencers suitable for collaboration, including considerations of follower and viewer counts that align with Tikacollectionid's needs. Secondly, suitable influencers are contacted through their business managers to discuss cooperation. Thirdly, payments are made to the influencers according to the agreed terms. Fourthly, influencer-endorsed advertisements for Tikacollectionid's products are uploaded at mutually agreed-upon times.

Up to this point, promotions through influencer endorsement have proven to be quite effective in increasing the number of followers on Tikacollectionid's Instagram account, boosting product sales, and enhancing consumer and prospective consumer brand awareness. This is due to the popularity of influencers, which has the power to influence the trust levels of prospective consumers in a product and brand.

Cumulatively, Tikacollectionid consistently promotes through online advertising by placing photos, videos, reels, and influencer endorsements a total of 12 times each month. This quantity is relatively high, meaning that Tikacollectionid runs online advertising around three times per week or almost every two days.

Out of the total 12 advertisements per month, Tikacollectionid uses the influencer endorsement system with one to three influencers.

Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1126

Based on the selection of appealing content combined with considering the timing of content uploads, Tikacollectionid's Instagram account experienced an increase in engagement (interaction with other Instagram account users) by up to 155% with interactions reaching 264% in the period from February 1, 2023, to March 11, 2023.

The 264% interaction rate consists of interactions through Direct Message (DM), comments, saves, and shares. Based on the above explanation, it can be concluded that, referring to the indicators and steps of Digital Marketing Theory, Tikacollectionid has implemented an appropriate and adequate digital marketing strategy. Brand awareness significantly influences the growth of Tikacollectionid's brand and its social media account. This is based on Instagram insights showing an increase in content interactions, an increase in the number of followers, account reach, and an increase in content views.

The use of influencer endorsements has a very high impact on the increase in Tikacollectionid's brand awareness. This is evidenced by the data on content views using influencer endorsements, with the highest number of views reaching 41.1 thousand views from the influencer's followers and other users. Thanks to this, Tikacollectionid's brand awareness is at the brand recall stage.

The strategy for increasing brand awareness has a significant impact on sales, with a net sales figure of up to Rp108,790,000 in a one-month period. This data was obtained from Tokopedia, where sales increased by 100%.

Therefore, it can be said that the digital marketing strategy implemented by Tikacollectionid has the ability to enhance brand awareness among potential customers, ultimately leading to an increase in sales of Muslim fashion products on Tikacollectionid.

V. CONCLUSION

In conclusion, based on the background and the existing phenomenon, marketing techniques have shifted from face-to-face (physical stores) to screen-to-face (online shops). To thrive in the online shop business competition, brand awareness must be enhanced.

After conducting interviews with Tikacollectionid's managerial, marketing, and admin personnel, it can be concluded that the strategy for increasing brand awareness of Tikacollectionid's fashion products and subsequently boosting sales is carried out through digital marketing on Instagram. This includes posting products on the feed and stories, Instagram Advertising with influencer endorsement, publishing the store's name on marketplaces, announcing Sales Promotion Offers such as giveaways or discounts, and sharing testimonials and promotions via WhatsApp and email blasts.

Consumer awareness of a brand can influence an individual's psychology to make purchases at a store or a brand that is remembered. Therefore, if a brand is well-remembered, sales will also increase. Consistency of the brand will also help maintain brand awareness.

The enhancement of brand awareness can be achieved through digital marketing on Instagram. The more consumers see products from the Tikacollectionid brand, the greater the likelihood that the brand will stick in the minds of potential customers. Ultimately, this can lead to an increase in the sales of Tikacollectionid's products.

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Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1127

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Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1128

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Strategies to Improve Brand Awareness through Digital Marketing on Instagram to Boost Sales of Tikacollectionid Fashion Products
Fauzana Kartikajati, Sunarta, Sarji

Page | 1129

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services

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ABSTRACT

Purpose: The Integrated Construction Services Information System (ICSIS) project is one of the Indonesian government's initiatives to meet public demand for better construction business services.

Design/methodology/approach: Despite being in operation for approximately 6 (six) years, ICSIS performs poorly. Fragmented business processes, noninteroperable systems, and unaccountable data all demonstrate poor performance in this regard. With all the best efforts, ICSIS only reaches 12% of the total target users.

Findings: This paper discusses a problem-structuring approach to problem analysis and comprehension, as well as the critical factors to consider through stakeholder interaction. From various perspectives, the results of this structuring phase using literature study, comparative analysis and soft systems methodology indicate that multidimensional factors must be considered in order to achieve the expected ICSIS values. This technique assists decision makers in developing a multidimensional model in ICSIS project management with the goal of fostering more dependable and long-term e-government in the construction services.

Paper type: Research Paper

Keyword: *Soft Systems Methodology; E-Government; Multidimensional Model; Project Management; Construction Services*

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I. INTRODUCTION

Law Number 2 of 2017 concerning Indonesia's Construction Services emphasizes the transformation of business services governance by mandating the development of ICSIS, which an implementation of construction business services utilizing the information and communication technology (ICT)–otherwise known as e-government. The creation of ICSIS is intended to improve the quality of business services governance while also anticipating the expansion of the construction sector, which is recognized to be increasingly complex and competitive at both the national and international levels. In addition, the initiative was also carried out to meet public demands for a higher quality of public services in the construction sector. The main areas of the government's concern in the creation of public value through e-government are the quality of public services, the effectiveness of public organizations, and the increase of social value.

The Ministry of Public Works and Housing of the Republic of Indonesia (MPWH) created ICSIS by integrating 6 (six) applications that provide services such as registration of professional and business experience, registration of construction material and heavy equipment, registration of construction company certificate, registration of construction worker certificate, procurement management of construction projects, management of e-owner estimate (e-OE), and management of e-construction project contract (e-contract). The main users of ICSIS are construction company, construction worker, material and heavy equipment vendor, government official in charge of construction project as well as public procurement team. ICSIS interoperability is also carried out

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1130

with several systems owned by 5 (five) ministries or institutions that provide services on population data system, online taxes, electronic public procurement, online company incorporation, and the online single submission system for business licensing processes. In addition, interoperability is also carried out with systems developed by 12 (twelve) Construction Company Certification Agency (CCCA) and 19 (nineteen) Professional Certification Agency (PCA) which provide services for the issuance of construction company certification and construction worker certification. Figure 1 depicts the design of interoperability between the MPWH's construction service system and systems built by other ministries and the construction community.
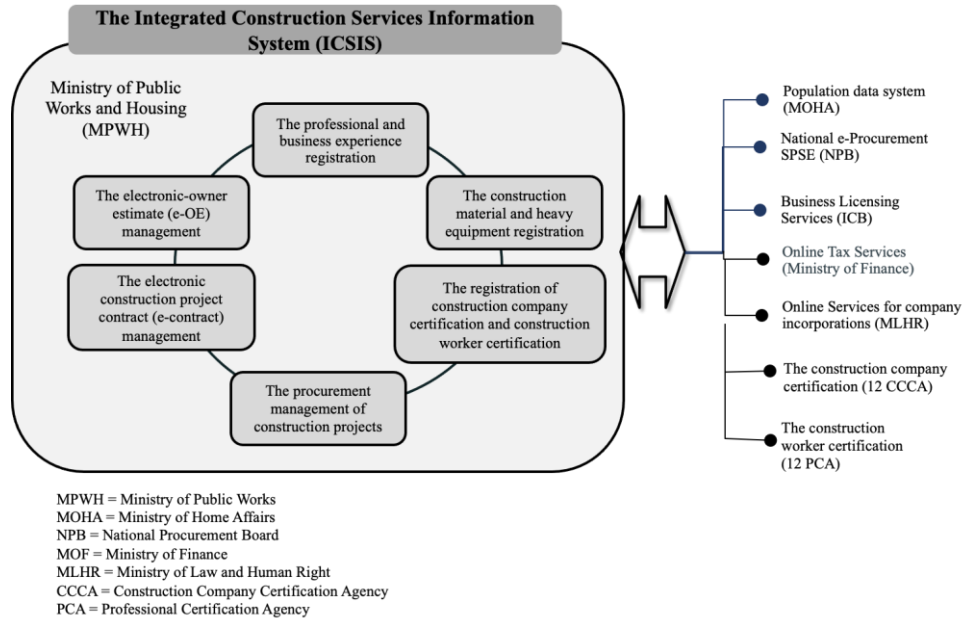

Figure 1. The Interoperability System of ICSIS

ICSIS showed a poor performance while in operation for approximately 6 (six) years. Poor performance in this regard is indicated by a variety of indications, including fragmented business processes, noninteroperable systems and unaccountable data. Regulation No. 59/2020, issued by the Minister of State Apparatus Empowerment and Bureaucracy Reform, regulates e-government maturity level measurement methods that can indicate the government's level of readiness in implementing e-government. The findings of an independent assessment of ICISS's maturity level are depicted in Figure 2. The ICSIS maturity level receives a fair rating of 2.6 on a 5-point scale. With all the best intentions, ICSIS fails to achieve widespread adoption, with adoption level as 12% of the total target users (https://siki.pu.go.id, 2022). It has faced numerous challenges and has failed to deliver the expected value.
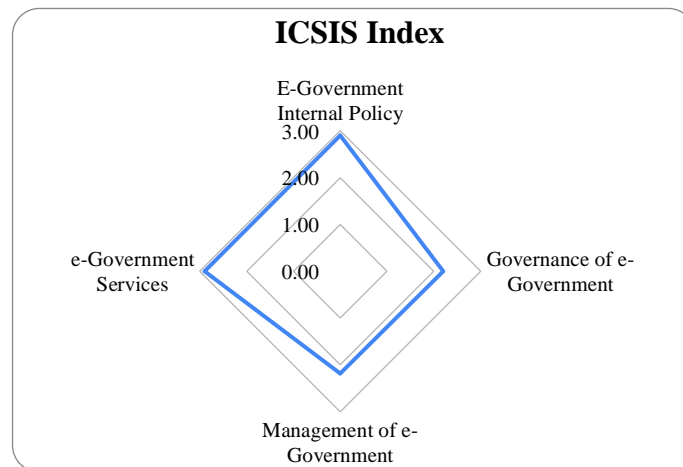
Figure 2. e-Government Index on ICSIS, 2022

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1131

According to the process of managing the ICSIS project from the design stage to the current operation, the management framework of the ICSIS project has yet to be fully implemented. It is still being implemented using generic project management and does not directly address the complexities of e-government transformation. ICSIS project management adopts an engineering project management approach in which information technology acts as a single process through the development of various applications. The budget allocation for ICSIS project is almost entirely to spent on application development and information technology procurement (Ministry of Public Works and Housing, 2022).

The experience of various countries on digital transformation practice shows that generic project management are unable to meet the demands of the complexity of e-government projects with stakeholders of different perspectives and goals. In this sense, ICSIS has various stakeholders with varying perspectives and interests in digital transformation, not limited to the government but also the construction community.
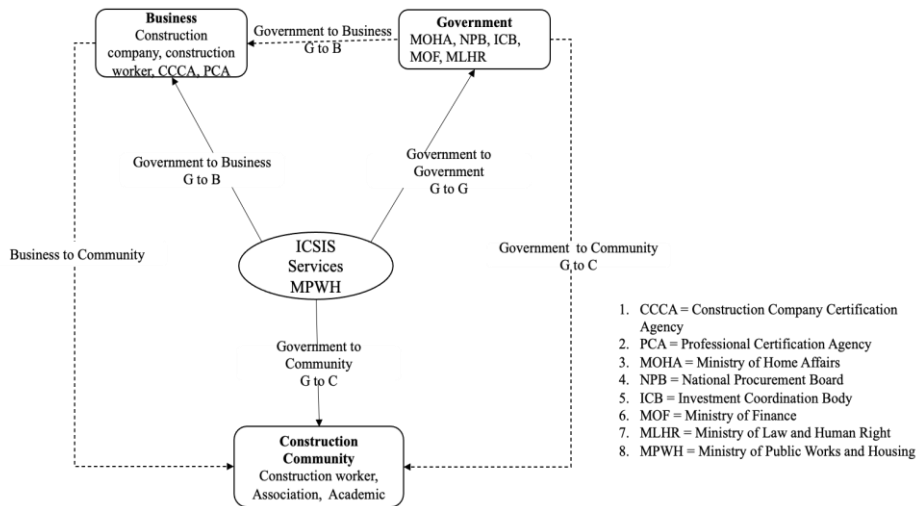

Figure 3. ICSIS Service Relationship Patterns

As illustrated in figure 3, there are 3 (three) relationship patterns in ICSIS, namely government to government (G2G), government to community (G2C) and government to business (G2B). Thus, ICSIS business processes are becoming more complex. This condition necessitates a comprehensive approach that incorporates the perspectives of multiple stakeholders, including the public, policymakers, and construction stakeholders.

Because of the heterogeneous aspects and stakeholders from numerous disciplines that must be considered, the management of e-government initiatives is particularly complicated and requires detailed review from various angles. This article will structure the ICSIS performance problem to gain an understanding of the factors that must be considered in ICSIS project management to see the interests of all stakeholders. These factors cannot be observed separately as there are interactions between them. Rather, they must be observed comprehensively, which are solvable through system thinking.

II. METHODS

The methodology utilized in this research is a combination of literature study, comparative analysis and Soft System Methodology (SSM). Literature study and comparative analysis are carried out by carefully researching numerous studies on factors that influence the effectiveness of e-government implementation and how e-government project management is carried out in various nations. Given the complexity of ICSIS project management, the results of the comparative analysis are utilized as a foundation for using SSM, particularly in constructing the ICSIS project management problem, identifying variables that must be considered while keeping all stakeholders' interests in mind. The LUMAS model is used for problem analysis, followed by CATWOE analysis, which is used to explore factors that must be considered in e-government project management in order to find models that can improve ICSIS performance.

SSM is a qualitative research methodology developed into a systemic and organized process that is used to address problems with an action-orientation to bring about improvements (Checkland & Poulter, 2006; Nair, 2014). SSM does not assume the world as something systemic and orderly. Instead, SSM assumes social reality as problematic characterized by various angles of approach and perspectives, as well as the readiness of actors to

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1132

decide on actions to accommodate the perceptions, judgments and values of different actors (Železnik et al., 2017). SSM was developed in response to the failure of hard systems methodology to address complex real-world situations (Checkland & Poulter, 2006; Warren et al., 2019), addresses soft problems, issues that are difficult to resolve due to complex social interdependencies (Kamari et al., 2019).

Four SSM activities which are the revision of the 7 (seven) stages of SSM were introduced by Checkland (2000) are as follows:

a. Problem Situation: Identify problems or situations that need to be addressed, by collecting data and information, defining problems and aligning the understanding of all stakeholders on existing problems;
b. Developing a suitable purposeful activity model;
c. Debating the circumstance, utilizing the models, and seeking to learn from these debates in these aspects:
1) modifications that are both ideal and culturally achievable and would improve the situation, and
2) the arrangements between opposing interests that will allow better improvements to be established;
d. Taking measures in the circumstance to make it better.

Checkland introduced the concept of LUMAS (Learning for a User by a Methodology-informed Approach to a problem Situation) as part of the SSM (Checkland, 2000). LUMAS is an approach used to understand problem situations and solve them. In LUMAS, "Learning" refers to learning about the methodology to be used, "User" refers to the individual or organization experiencing the problem, "Methodology-informed" refers to the application of the understood and applied methodology, and "Situation" refers to the problem situation to be solved. LUMAS is very useful in solving complex and unclear organizational problems, such as environmental problems, social problems, and organizational problems.

The CATWOE analysis was conducted to identify the key stakeholders and the issues that concern them, as well as the success criteria and potential solutions. On the other hand, a CATWOE analysis is utilized to identify the potential impact of solutions on various stakeholders and assess the likelihood of each solution.

A. Literature Review

1. Implementation of e-Government: Key Success Factor

E-Government implementation refers to how an organization or government institution manages all stages of an integrated e-government project, from inception to completion, including change management and project sustainability, in order to maximize output and project service benefits (Gil-Garcia & Flores-Zúñiga, 2020; Indrajit et al., 2016). Various literatures discuss the key factors influencing the success of e-government implementation. However, the literature on the application of e-government in the construction sector is extremely limited.

Looking at the experience of e-government development in various countries, it is clear that as many as 35% of developing countries have failed, 50% have been partially successful, and only 15% have succeeded (Kuldosheva, 2021; Manurung, 2017; Twizeyimana & Andersson, 2019). Failure of e-government causes many problems, including lost time and money, damage to key actors' reputations, and the potential for increased funding to improve it in the future (Twizeyimana & Andersson, 2019).

Ansyori et al. (2018) and Chomistriana et al. (2022) conducted a thorough literature review and came to the conclusion that technical and non-technical factors were interrelated and critical to the success of e-government. The effectiveness of e-government implementation is determined not only by the availability of information technology tools, but also by how users use e-government to support operational and organizational goals in achieving e-government value. Non-technical factors influencing e-government implementation performance include human resource leadership (Dias, 2020; Sandoval-Almazán et al., 2017; Sulistiyani & Susanto, 2018; UNDESA, 2020; Villanueva, 2018), policy and regulation (Al-Muftah et al., 2018; Nachit et al., 2021; Omoyiola, 2019; Sandoval-Almazán et al., 2017; Sulistiyani & Susanto, 2018; UNDESA, 2020; Villanueva, 2018; Wilson & Mergel, 2022), organization (Al-Muftah et al., 2018; Ashaye & Irani, 2019; Dias, 2020; Gilman, 2018; Omoyiola, 2019; Sandoval-Almazán et al., 2017), business process (Nachit et al., 2021; Omoyiola, 2019; Sandoval-Almazán et al., 2017; UNDESA, 2020; Wilson & Mergel, 2022), culture (Humbeck et al., 2019; Wilson & Mergel, 2022), economy (Gong et al., 2020; Omoyiola, 2019; Sandoval-Almazán et al., 2017; Srinavin et al., 2021; Wilson & Mergel, 2022), demographics and geographical conditions (Dias, 2020; Gong et al., 2020; Omoyiola, 2019; Sandoval-Almazán et al., 2017; Wilson & Mergel, 2022). Non-technical factors often become dominant and are used as a reference to determine technical standards. Human resources, policies, and regulations are the main factors that must be present in e-government initiatives, according to 83% of respondents in a literature review conducted by Chomistriana and Simanjuntak (2022). This is closely followed by organization, which comes in at 71%. 67% and 50% are accounted for by technical factors, specifically technology and business processes.

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1133

2. Adoption of e-Government: Key Success Factor

Adoption of e-government represents how users engage with e-government services (Gil-Garcia & Flores-Zúñiga, 2020). According to various sources, the success of e-government projects cannot be measured solely on the basis of implementation. Rather, it is necessary to see the process of achieving the value of e-government. All too often, a beautifully-built, robust, and highly technical application is delivered to intended end-users, and it gets almost no use because it does not solve real problems experienced by those users. Digital transformation in public sector services should be viewed as a change in all aspects of the technology system, processes, and organizations that result in changes in how people behave in order to adopt the services.

Creating an e-government project entails transformation, which is carried out not only on technology but on all aspects of the technology system, processes, and organizations that bring about change, and is also centred not only on the implementation perspective but also on society (Hornstein, 2015; Sarantis et al., 2009; Takagi & Varajão, 2019). An issue that is often present in technology for good failures is not approaching the problem from a user-centred perspective. Ecosystem innovation is highly dependent on continuous adaptability to the evolving nature of the user's needs and emerging technologies (Linde et al., 2021; Marnada et al., 2022).

An organization is almost certain to implement e-government well by interpreting customer needs into specific products and services. The existence of an organizational culture that facilitates and supports ecosystem transformation is an important factor that plays a fundamental and significant role in the success of digitally sustainable services (Kamalaldin et al., 2020; Valdés et al., 2011). In some cases, the state of the community's socioeconomic structure and average income level, as well as geographic and demographic conditions, influence the success of e-government (Al-Muftah et al., 2018; Kuldosheva, 2021; Wilson & Mergel, 2022). Community readiness as e-government users is an important determinant (Al-Muftah et al., 2018; Kuldosheva, 2021; Sam & Chatwin, 2019). The level of use of e-government services is affected by the condition of people with a high level of digital literacy (Sandoval-Almazán et al., 2017; UNDESA, 2020; Wilson & Mergel, 2022). To be able to use digital services, the entire community's mindset must be changed (Elnaghi et al., 2019).

The experience of implementing e-government demonstrates that the adoption of e-government services is determined by factors such as how users perceive the benefits of the service (Ahmad et al., 2020; Rabaa et al., 2016); how users perceive the ease of the service (Ahmad et al., 2020; Hyytinen et al., 2022; Rabaa et al., 2016; Veeramootoo et al., 2018; Witarsyah et al., 2017) and the users' readiness of technology (Malodia et al., 2021; Rabaa et al., 2016). Many studies have examined the successful application of e-government by examining variables formulated by Technology Readiness and Acceptance Model (TRAM) theory,

3. Project Management of e-Government

Increasing the success rate of e-government programs is an organizational challenge. To achieve the desired outcome, it is required to define success criteria, which then become factors addressed in the integrated project management methodology throughout the initiation and planning phases, as well as during monitoring and control activities (Takagi & Varajão, 2019). To improve e-government performance, the factors of implementation by the government and adoption by users should be seen as equally important and interrelated in a project management cycle (Alkaabi et al., 2017; Gil-Garcia & Flores-Zúñiga, 2020).

Traditional project management that only considers implementation factors, based on experience in various countries, is unable to meet the requirements of e-government transformation due to the complex range and character of e-government initiatives. This is a common finding in developing-country e-government projects, where project management is engineering in nature (i.e., information technology) with a concentrate on data (instead of information), technology (rather than human resources), processes (rather than services), and management structures (rather than knowledge) (Sarantis et al., 2009). The research on various e-government projects in Indonesia suggests that there are gaps in e-government project management, where most of them still use traditional approaches, which are formed with an emphasis on implementation factors in the form of measurement, control and rules (Marnada et al., 2022). Traditional project management focuses on activities that reduce costs and boost productivity; as a result, more emphasis is paid to information technology components as a single process through application development, which poses a number of issues (Marnada et al., 2022).

Large-scale digital transformation must result in changes in the behavior of many actors, takes time, and involves complex relationships between various social and technical entities in one ecosystem (Burmeister et al., 2019). Various implementation factors related to process, technology, and human resources, as well as adoption factors, must be diffused in all stages of project management, with realistic milestones, involvement of all stakeholders, and elaboration of system development methods and knowledge of governance processes (Ziemba, 2013). There are 4 (four) major gaps in e-government project management (Sarantis et al., 2009), namely: inability to capture the ultimate goal of the e-government project; inadequacy in capturing the project's multidimensional characteristics; no knowledge transfer; and no e-government stakeholder modelling.

The development of project management theory presented in the PMBOK 7th edition (2021) emphasizes the value achieved by a project with a focus on outcomes rather than deliverables. It describes 12 (twelve) basic

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1134

principles that form the foundation of all projects, with various approaches to producing project outcomes. There are eight performance domains, which are groups of activities that determine how well project delivery can be carried out. Overall, the performance domain represents a project management system that includes interactive, interconnected, and interdependent management that will achieve the desired project results. When the performance domains interact with one another, changes occur that must be continuously reviewed and viewed as a unified system. This theory is consistent with what is required in e-government project management, namely integrated, flexible, and dynamic project management capable of dealing with change, using a behaviour-focused, knowledge-centred, and systemic approach.

It was found that more research is needed to determine what implementation and adoption factors influence the success of digital transformation programs in the construction services. Implementation variables include not just technical aspects like technology, data, and business processes, but also non-technical factors like culture, organization, human resources, economic conditions, and others. Furthermore, adoption factors such as technology readiness, user perceptions of system benefits, and ease of access must all be considered in order to achieve ICSIS value. As a result, structuring the internalized success characteristics and obstacles in e-government project management is a significant step toward improving ICSIS performance.

III. RESULTS AND DISCUSSION

The MPWH has implemented digital transformation by creating ICSIS, which intends to improve construction business services in Indonesia. Despite ICSIS's six-year operation, the resulting performance has not met the intended values, such as improving the quality of construction business services, improving the quality governance of the government administrative system, and boosting the social value of the construction community. The system maturity level was only 2.6 out of 5, and the system adoption rate was only 12% of the entire target users (https://siki.pu.go.id, 2022).

It is known that the ICSIS project management still emphasizes engineering matters with the main focus on developing applications and information technology (Ministry of Public Works and Housing, 2022). Digital transformation is not followed by changes in organizational structure, mindset changes, mapping of user behaviour, mapping of employee and user technology readiness, and other non-technical factors. Literature review and comparative analysis of factors affecting e-government performance as well as e-government project management in various sectors and countries was conducted with the aim of:

    a.   Analysing the problems which result in the inability to achieve ICSIS value;

    b.   Optimizing the factors that can improve ICSIS performance by recognizing how the interaction of key implementation and adoption factors affect ICSIS performance;

    c.   Evaluation of project management used in various e-government projects;

    d.   Evaluation of factors that must be considered in ICSIS project management to achieve the desired value;

    e.   Building a conceptual model for ICSIS Management Project;

    f.   As a reference to develop a model that will be used for further research using quantitative methods, which can later be used to develop an operational framework for ICSIS project management.

Figure 4 depicts an analysis of ICSIS project management challenges using LUMAS. The government anticipates that the value of ICSIS (increasing the quality of public services, governance of government administrative systems, and the social value of society) will be realized, and thus the performance of construction business services will improve. However, if ICSIS project management is implemented using a traditional project management approach with an emphasis on technology and information development as well as applications, a digital transformation failure will occur, characterized by fragmented business processes, noninteroperable systems, a low level of data accountability, and low system adoption rates.
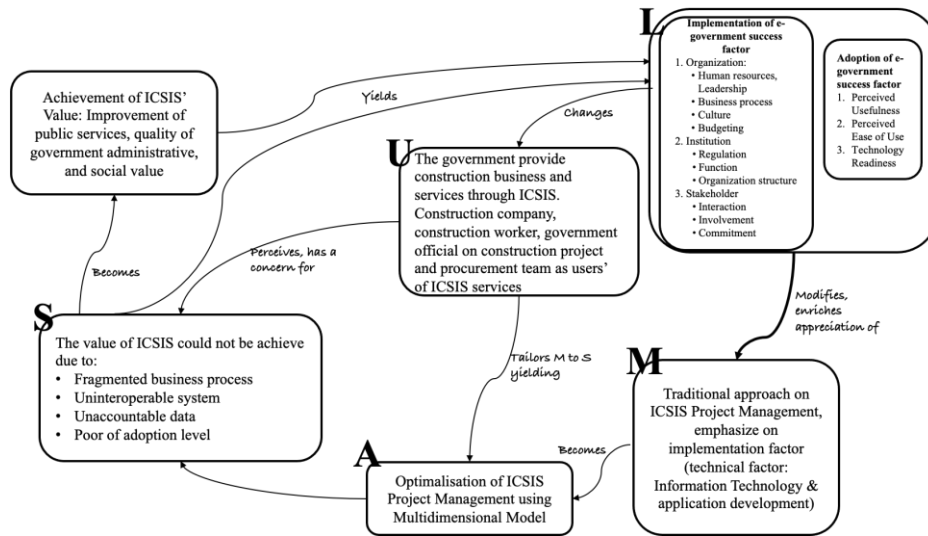
A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1135

Figure 4

LUMAS Multidimensional Model in ICSIS Project Management

This study will produce an e-government project management model by including a transformation management system that takes into account the entire life cycle of the project, combining the hardware and software qualities of the project management method, as well as demonstrating how project management can meet the specific challenges of government transformation projects. The value that e-government projects seek to achieve is measured in addition to the achievement of implementation outputs. Transformation project management must incorporate all implementation and adoption factors into a multidimensional model, which is then optimized in e-government project management (Michael & Miller, 2013; Sandoval-Almazán et al., 2017).

The CATWOE (Customers - Actors - Transformation Process - Worldview - Owners - Environmental Constraints) analysis aims to map and identify problem areas, as well as see what you want to achieve and how different solutions would impact stakeholders. The analysis employs thinking solutions from a variety of perspectives. Table 1 shows the CATWOE analysis of ICSIS project.

Table 1. CATWOE Analysis

CATWOE Element	Description
CUSTOMER *Who are the process's beneficiaries and what effect does the issue have on them?*	*Construction company, construction worker, government official on construction project, government procurement team*
ACTOR *Who is involved in the situation*	*MPWH, MOHA, MOF, MLHR, NPB, ICB, CCCA, PCA*
TRANSFORMATION PROCESS *What is the fundamental transformation of the system?*	*How to apply the multidimensional model to ICSIS project management to improve system performance and achieve the expected value.*

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1136

CATWOE Element	Description
WORLD VIEW *What is the overall picture, and what are the broader implications of the problem?*	*Construction company, construction worker, government official on construction project, public procurement team use ICSIS to obtain construction business services.* *ICSIS runs effectively, efficiently, integrated, interoperable, safe, accountable, and transparent.* *The ICSIS project achieves good maturity level and high adoption rate.* *The high quality of public services, the effective public organizations, and the increase of social value.*
OWNER *Who is in charge of the process or situation under investigation, and what role will they play in solving it?*	*Ministry of Public Works and Housing*
ENVIRONMENTAL CONSTRAINTS *What are the constraints that will affect the solution's success?*	*ICSIS project management is implemented traditionally with an emphasis on implementation factors in the form of information technology and application development;* *Inadequacy in capturing the multidimensional ecosystem;* *Lack of regulation and Standard Operational Procedure which regulate the non-technical factors;* *Lack of mapping of the needs and adequacy of qualifications and classifications of human resources for project implementation;* *The organizational structure and business processes of the organization have not been adapted to the needs of digital transformation;* *Dearth of knowledge transfer;* *Lack of Stakeholder e-government modelling;* *Lack of digitalization risk management;* *Lack of stakeholder capacity mapping of technology readiness acceptance;* *The behaviour of all stakeholders involved in regards to potential change, may have opposing viewpoints and culture.*

The author believes that the development of project management theory presented in PMBOK 7th edition is more appropriate for use in e-government projects, where projects emphasize the value achieved by focusing on results rather than deliverables (Project Management Institute, 2021). Based on the analysis of LUMAS and

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1137

CATWOE, a multidimensional model will be built to internalize implementation and adoption factors in ICSIS' project management, as shown in figure 5.
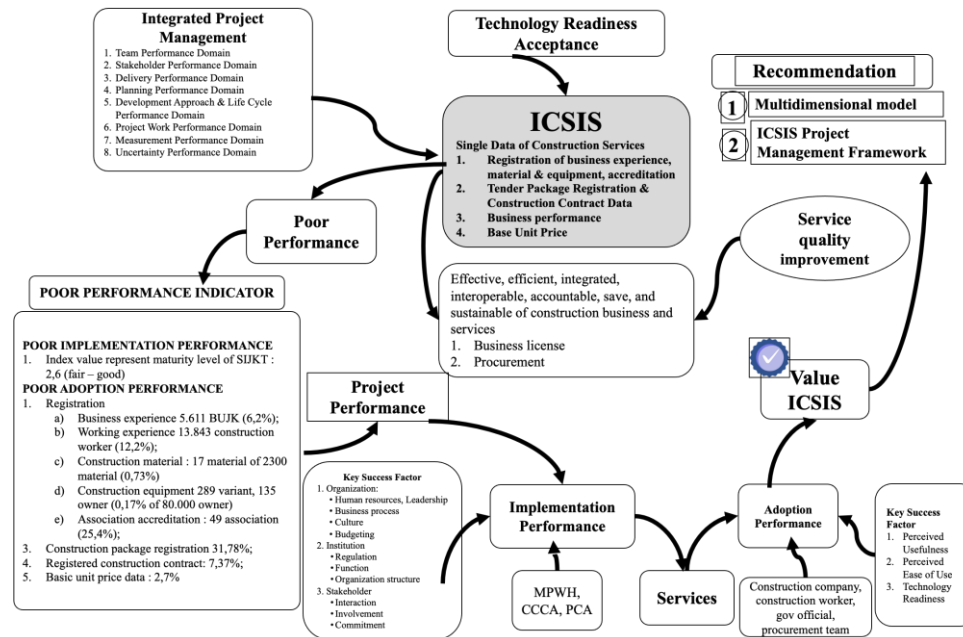

Figure 5. Multidimensional Conceptual Model of ICSIS Project Management

1) *Consumers* are the users of ICSIS. This includes construction company, construction workers, government officials on construction projects, and public procurement teams. Consumers are part of the construction community, which includes the association of business entities, professional associations, academicians and others parties who are able to influence government policy.

2) The government has the authority to provide construction business services, which results will be felt by consumers in the form of effective, efficient, integrated, interoperable, safe, transparent and accountable services.

3) Integrated Project Management is a tool used to translate policies, including ICSIS long-term planning and project implementation to ensure that ICSIS can operate to provide good service quality and achieve the desired value. In this research, project management implementation factors will be structured based on performance domain variables as stated on the PMBOK 7th edition.

4) Technological Readiness Acceptance is related to how service consumers perceive ICSIS and their readiness. TRAM is made up of user perceptions of the system's benefits and ease of use, as well as their readiness to use ICSIS. The TRAM adoption evaluation results are used as factors to consider in ICSIS project management.

5) The multidimensional model comprehensively internalizes implementation and adoption factors in ICSIS project management, which will be applied within the ICSIS operational framework to achieve the ICSIS value and construction business services as expected.

According to the PMBOK 7th edition method, implementation factors will be classified into eight performance domain variables: team, stakeholder, delivery, planning, development and life cycle, project work, measurement, and uncertainty. The performance domain is a group of activities that determine the project delivery can be done effectively. The overall performance domain represents a project management system that includes interactive, interrelated, and interdependent management, and together will achieve the desired project output. Key success factors for e-government implementation will be developed as performance domain variables. To achieve the adoption performance of ICSIS, variables from the Technology Readiness Acceptance Model (TRAM), namely perceived usefulness, perceived ease of use, and technology readiness, will be used. Changes will occur as the performance domains interact with one another, including ICSIS user behaviour, which must be continuously reviewed and viewed as a single system.

The following step is to compare the model to the actual situation, which is a juxtaposition of the actual situation sketch with the model developed so that the areas that require improvement and significant features are

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1138

visible. This will be used as a benchmark to identify what improvements must be done to improve ICSIS performance.

Table 2. Comparison between model and reality

Conceptual Model Activities	Current Situation	What to do
Identifying implementation and adoption factors and their impact on ICSIS performance improvement.	There is no systematic approach to identifying implementation and adoption factors that influence the achievement of ICSIS value.	Design, develop and implement systematic approach.
Reviewing of current ICSIS project management performance.	ICSIS project management is focused on application and information technology development. There is no overarching strategy for ICSIS construction management.	Establish a comprehensive formal review of ICSIS project management.
Assessing team performance of ICSIS.	There was no systematic analysis.	Conduct a thorough evaluation of team performance.
Mapping digitalization capacity of ICSIS stakeholders	There is no mapping of the digitization capacity of stakeholders.	Stakeholder digitalization capacity mapping and being part of ICSIS management.
	The construction services community has not been involved in the development of ICSIS, which has resulted in a gap in readiness between CCCA and PCA in developing systems that must be interoperable.	
Assessing delivery performance.	There are no key performance indicators (KPIs) for services that can be agreed upon by all ICSIS stakeholders within a specific time frame; instead, KPIs are limited to technical performance achievements.	Develop delivery performance standards that can be agreed upon by all ICSIS service users and stakeholders.
Assessing planning performance	There is no stakeholder inclusiveness strategy in the planning stage, considering all implementation and adoption factors.	Build an inclusive and comprehensive ICSIS planning system
Assessing Life Cycle Performance.	There is no overall strategy based on the ICSIS project lifecycle.	Develop ICSIS performance standards according to the project life cycle and define the stages to be achieved in each cycle.

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1139

Conceptual Model Activities	Current Situation	What to do
Assessing project work performance	*There are no project works performance standard that covers technical and non-technical performance and service adoption.*	*Develop project works performance standards that include implementation performance (technical and non-technical) and service adoption performance.*
Review Measurement performance	*There is no comprehensive and regular review strategy for KPI delivery and project performance.*	*Develop a comprehensive and regular review strategy for KPI delivery and project performance.*
Risk Management of Digital Transformation	*Risks of technological development and rapid changes in business processes have not been anticipated in ICSIS project management.*	*Preparation of Digitalization Risk Management.*
Assessing the readiness of the construction community's acceptance of the utilization of technology that will be applied through ICSIS.	*There is no strategy for mapping the readiness of the construction community's acceptance of the utilization of technology that will be applied through ICSIS.*	*Develop and implement a strategy for mapping the readiness of the construction community's acceptance of the utilization of technology.*
Applying the multidimensional model to the ICSIS project management operational framework	*No multidimensional model was used as the basis for building an operational framework for ICSIS project management.*	*Build an operational framework for ICSIS project management based on a multidimensional model*

The recommendations compiled in the article are expected to be carried out to change the current conditions so that they closely resemble the conceptual model. Under ideal conditions, all recommended activities can be implemented. However, an organization certainly has limited and finite resources, in aspects of human and cost. Pragmatically, it is necessary to prioritize the implementation of these recommendations (Burge, 2015). This is not a simple task, and it is difficult to put into action. The parties are frequently not motivated to make a change even though it needs to be done logically as outlined in the conceptual model. The SSM is intended for human activity systems; therefore, it is essential to look into the behaviour of all stakeholders involved in regards to potential change, who may have opposing viewpoints even if the conceptual model's logic is undeniable. If the changes and the culture conflict, one culture will emerge as the victor. As a result, cultural feasibility might be challenging for scientists and engineers.

V. CONCLUSION

The purpose of this article is to create and outline the essential objectives for achieving ICSIS value. The literature review and application of SSM resulted in the problem being systematized, which served as the foundation for establishing a framework for developing an ICSIS multidimensional model. Implementation and adoption factors identified in various literatures serve as the foundation for transformation project management variables that consider the entire project life cycle, combining hardware and software characteristics, and are tailored to meet the challenges of government digital transformation projects. A realistic action plan can then be built using the multidimensional framework model by comparing the expected situation to the current conditions.

This article has limitations in a way that it does not validate the implementation and adoption factors that influence the success of ICSIS to experts. Furthermore, additional study using the ease benefit matrix is required to build and organize a feasible change action plan that can be implemented immediately. The outcome will

A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1140

certainly result in a new system that influences the larger system and can provide more opportunities and problems, and the process will have to be done from the beginning once again. It is also possible to quantitatively measure the interaction of the multidimensional key factors and their significance to the ICSIS value achievement in order to further refine the system. This can be used to determine the priority scale for the recommendations made.

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Page | 1141

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A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1142

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A Soft Systems Methodology Application to Promote the Multidimensional Model of e-Government Project Management in Indonesia's Construction Services
Chomistriana Dewi[1], Mulyono T. Agus[1,2], Najid[1]

Page | 1143

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism

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ABSTRACT

Purpose: The objective of this research is to examine the impact of financial hardships, debt covenants, and leverage on accounting conservatism in a partial and simultaneous manner.

Design/methodology/approach: The analysis focuses on firms operating in the industrial and consumer products sectors, which are listed on the Indonesia Stock Exchange (IDX) during the period from 2016 to 2020. This particular research methodology employs quantitative techniques to investigate a predefined population or sample. The samples were obtained using a purposive sampling strategy, which included selecting individuals based on preset criteria. This study uses data regression analysis as a method of data analysis, using the SPSS software.

Findings: The findings indicated that accounting conservatism was only partly unaffected by financial troubles. Debt covenants have a partial influence on accounting conservatism, while leverage partly has a notable impact on accounting conservatism. Furthermore, accounting conservatism is significantly affected by a combination of financial challenges, debt covenants, and leverage.

Paper type: Research Paper

I. INTRODUCTION

Conservative accounting is modified or excluded when it hinders the presentation of critical and reliable accounting data, according to Sumantri (2016). According to Wibowo (2002) in Harini et al. (2020), financial reporting rules for recognizing and measuring assets and profits are applied carefully to ambiguous economic and commercial processes. Accounting conservatism as a natural reaction to uncertainty and risk in planned companies. Some still find conservatism troublesome, some don't. Opponents of conservatism argue that its use to produce financial reports produces reports that are not objective and do not represent the company's true financial health (Raharjo and Dewi, 2016). However, conservatives argue that accounting conservatism in financial reporting prevents managers from acting opportunistically to increase profits. Khan and Watts (2009) state that conservative financial reporting can reduce information asymmetry by limiting management's manipulation of financial data. Companies changing their financial records show how accounting conservatism can fail. Management's incompetence inflates the company's net profit (www.cnnindonesia.com). A company's profit value that is too high is caused by profit recognition that is too optimistic. Garuda Indonesia's experience shows that situations like this may deceive investors and stakeholders. Therefore, it must be reduced. This also shows how rarely companies use conservative accounting rules when writing financial reports (Budiandru et al., 2019). The assumption is that the organization will face economic uncertainty in the future, requiring a careful approach in monitoring, identifying and assessing that data. Despite the controversy, conservative accounting methods persist. This strategy is still used because a more realistic viewpoint reduces managers' tendency to exaggerate profits in financial reporting. Overstating results is riskier than underestimating because financial statements show much greater profits than were achieved, increasing the likelihood of legal action. (Sari, 2020)

Positive accounting theory states that management will relax prudent accounting standards when a company is struggling financially.

Conservative accounting is modified or excluded when it hinders the presentation of critical and reliable accounting data, according to Sumantri (2016). According to Wibowo (2002) in Harini et al. (2020), financial reporting rules for recognizing and measuring assets and profits are applied carefully to ambiguous economic and commercial processes. Accounting conservatism as a natural reaction to uncertainty and risk in planned companies. Some still find conservatism troublesome, some don't. Opponents of conservatism argue that its use to produce financial reports produces reports that are not objective and do not represent the company's true financial health (Raharjo and Dewi, 2016). However, conservatives argue that accounting conservatism in financial reporting prevents managers from acting opportunistically to increase profits. Khan and Watts (2009) state that conservative financial reporting can reduce information asymmetry by limiting management's manipulation of financial data. Companies changing their financial records show how accounting conservatism can fail. Management's incompetence inflates the company's net profit (www.cnnindonesia.com). A company's profit value that is too high is caused by profit recognition that is too optimistic. Garuda Indonesia's experience shows that situations like this may deceive investors and stakeholders. Therefore, it must be reduced. This also shows how rarely companies use conservative accounting rules when writing financial reports (Budiandru et al., 2019). The assumption is that the organization will face economic uncertainty in the future, requiring a careful approach in monitoring, identifying and assessing that data. Despite the controversy, conservative accounting methods persist. This strategy is still used because a more realistic viewpoint reduces managers' tendency to exaggerate profits in financial reporting. Overstating results is riskier than underestimating because financial statements show much greater profits than were achieved, increasing the likelihood of legal action. (Sari, 2020) Positive accounting theory states that management will relax prudent accounting standards when a company is struggling financially.

Another factor that influences prudent accounting is leverage. Leverage describes how much debt a company uses to purchase assets. The business world requires large costs so they borrow from other parties (Abdurrahman and Erwati, 2019). According to Savitri (2016), the greater the leverage ratio, the more likely the company is to adopt non-conservative tactics to increase current profits. In line with Pambudi (2017), Rahayu and Sepian (2017), Rosa Dewinta, and Ery Setiawan (2016).

Financial difficulties can also disrupt accountants' conservatism. Financial problems are when a company's finances are bad or deteriorating and it is at risk of going out of business (Banjarnahor and Curry, 2018). Managers determine how carefully to budget when the organization has financial problems. Users of financial records should be aware that accounting profits fluctuate depending on the skill and conservatism of managers. When a company's finances are poor, owners can replace management. This may lower the manager's job market value. These dangers can cause managers to adjust their financial return behavior, which is used to evaluate their performance. So a bad financial crisis can force management to rethink its accounting conservatism (Pramudita, 2012).

The conservatism study (Quljanah et al., 2017) shows that growth opportunity and leverage together have a positive effect on accounting conservatism. This shows that expansion and leverage have a positive effect on stiffness. (Budiandru et al., 2019) revealed that debt restrictions provide benefits for careful accounting, but significantly. According to Putra and Sari (2020), leverage, income and financial conservatism have a small positive influence on each other . There is a slight negative relationship between financial condition and accounting prudence. (2018) Ursula and Adhvinna's prudent accounting is influenced by management ownership, company size, debt, and growth potential. Accounting conservatism is influenced by company size, debt, and growth potential. However, executive ownership has no effect on accounting conservatism. Prudent accounting benefits from development opportunities and financial pressures (Tazkiya and Sulastiningsih, 2020). This research is an extension of 2017 Quljanah et al. research on Growth Opportunities and Leverage and financial conservatism. This analysis examines the transportation business from 2017 to 2019 and includes debt covenants and financial distress. Debt agreements are added due to agency. The debt covenant hypothesis states that the more likely it is that a company violates its loan covenants, the more likely its management will use accounting practices that shift earnings from the future to the present. The debt agreement assumes management will overstate profits and assets to save on renegotiating the debt. Debt agreements are based on leverage. Financial problems may make it difficult to select an accounting approach for a company experiencing financial difficulties. Positive accounting theory states that a company's financial pressure influences the use of prudent accounting. Positive accounting theory states that managers are less careful in companies experiencing financial difficulties (Suprihastini & Pusparini, 2007). When a company experiences financial difficulties, shareholders may fire its management because they do not believe they can run it successfully. Changes in financial conservatism can help managers change earnings, which indicate job performance.

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

A. Literature Review
1. Accounting Conservatism.

The principle of accounting conservatism is a fundamental concept that emphasizes careful recognition of assets and income, while emphasizing rapid recognition of expenses and liabilities. This technique is based on the assumption that activities related to business and the economy are, at their core, characterized by an element of uncertainty. The paradigm proposed by Givoly and Hayn (2000), which is often called Conservatism Based on Accrued Items, is used to assess conservatism. The following equation represents the computational procedure for determining Savitri's level of conservatism, as outlined in research conducted by Savitri in 2006:

$$MBV = \frac{HARGA\ PASAR\ SAHAM}{NILAI\ BUKU\ SAHAM}$$

2. Financial Difficulties

According to Fahmi (2017): 93, conditions of worsening financial problems that occur before bankruptcy or liquidation occur are called "financial distress". According to research by Risdayani and Kusmuriyanto (2015), the term "financial distress" refers to early indicators of worsening financial position in a business, as reflected in the organization's financial reports. This interpretation was carried out based on the research findings of Risdayani and Kusmuriyanto (2015). The Altman Z-Score model is a comprehensive tool relevant to both manufacturing and non-manufacturing businesses. This model is used in this research to measure the level of financial difficulties experienced by manufacturing and non-manufacturing businesses. Based on the findings of research conducted by Wiecandy and Khairunnisa in 2018, Altman's discriminant analysis shows a noteworthy ability in predicting financial difficulties with an accuracy rate of 95%. The Modified Altman Model (Altman, 2000) was used in this study to provide a measure of how difficult it is to meet financial needs. Following is the formula used for this specific purpose:

$$Zi = 0,717X1 + 0,847X2 + 3,107X3 + 0,42X4 + 0,998X5$$

X1 = (Current Assets – Current Liabilities) / Total Assets
X2 = Retained earnings / Total Assets
X3 = Profit Before Interest and Tax / Total Assets
X4 = Book Value of Common and Preferred Stock / Book Value of Total Debt
X5 = Sales / Total Assets

3. Leverage

The extent to which an organization's capital structure relies on money raised through loans can be measured using a metric known as leverage. According to Nurminda et al. (2015), having an excessive amount of debt can have a negative impact on the company because it will be increasingly difficult for the company to reduce its debt burden, thus potentially creating a prolonged debt condition. Setiawati and Lim (2018) stated that leverage can be used as a method to determine the proportional volume of a company's debt compared to its capital. By using the Debt Equity Ratio (DER), the aim of this research is to find out whether the company is able to fulfill its obligations related to its debt or not.

$$DER = \frac{Total\ Liabilitas}{Total\ Equity}$$

4. Debt Covenant

Management can use strategic accounting methods to increase profitability when the company is on the verge of violating loan covenants, according to the debt covenant. In this research, the replacement variable is leverage based on debt agreements. According to Fatmariani (2013), the formula for determining leverage is as follows: To determine the severity of the risk associated with loan delays, companies can use the ratio above (Deffa, 2012) to get a complete picture of their capital structure. To determine whether or not a company is able to pay off its debt, investors look at its leverage ratio. Debt agreements can be expressed in numerical form through a measurement process.

$$Debt\ Asset\ Ratio = \frac{Total\ Liabilitas}{Total\ Aset}$$

II. METHODS

In research techniques, the ideas of population and sample are an important basis. A researcher will call a collection of people or objects a population if they are interested in studying them because they share certain characteristics. A total of 75 different businesses, all of which were active in the consumer goods market and were listed on the Indonesia Stock Exchange (BEI) between 2016 and 2020, were taken into consideration in this investigation. Purposive sampling is the method used for the sampling process in this particular research effort. The research sample consisted of 21 different businesses. Conducting a literature review as part of the data collection approach used typically requires the use of internet sources, books, and academic publications relevant to the theme being investigated. Quantitative data, presented in numerical form and correlated with research variables, are included in the data set used for this investigation.

The research above uses secondary data as its main source of information, namely information obtained from the websites of industrial companies listed on the stock exchange. This information is presented in the form of a financial report and you can obtain a copy by downloading it from the website http://www.idx.co.id/. Data analysis was carried out using multiple linear regression, which is the approach used in this research. The use of multiple regression analysis makes it possible to evaluate the influence, either collectively or individually, of independent factors on the dependently measured variables.

III. RESULTS AND DISCUSSION

A. Results
1. Descriptive Research Results

The overall data characteristics of each variable are shown in Table 1 as follows:

Table 1. Data Characteristics

	N	Min	Max	Mean	Std. Deviation
Financial distress	105	-30.23	5.73	1.7742	5.00596
Debt Coventant	105	.08	.76	.3663	.15595
Levarage	105	.08	3.16	.6781	.55861
Conservatism	105	.11	13997608.21	1651481	3575240.383
Valid N (listwise)	105				

Source: SPSS Processing Data, 2023

Based on the information shown in Table 1, the research project consisted of a total of 105 samples. The value of the variable representing financial difficulties can take various forms, with a minimum value of -30.23 and a maximum value of 5.73. Likewise, the debt covenant variable can vary between 0.08 to 0.76. The leverage variable has a value range from 0.08 to 3.16. Lastly, the value of the accounting conservatism variable can vary between 0.11 to 13,997,608.21, with the lowest value being 0.11. The financial distress variable has a mean value of 1.7742, the variable measuring the company's debt covenant is 0.3663, the variable measuring leverage has a mean value of 0.6781, and the variable measuring accounting conservatism has a mean value of 1651481. The current investigation shows that there is a significant deviation of 5.00596 . a unit of standard deviation from a value that is considered the norm for a variable measuring financial hardship. Likewise, the variable representing the company's debt agreement shows a difference of 0.15595 units , the variable representing the company's leverage shows a difference of 0.55861 units, and the variable representing the company's accounting conservatism shows a very large difference of 3575240.383 units.

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

2. Requirements Test / Classical Assumption Test

The purpose of conventional model testing is to determine the validity of the model. The investigation will use customary procedures to verify assumptions, including:

a. Normality Test Results

Graphical methods are used to carry out normality tests. Specifically, the distribution of data on the diagonal line in the Normal PP Plot of the normalized regression residuals is analyzed to determine whether the test completed normally or not. A plot of conventional probabilities of standardized residuals obtained from regression analysis is shown in Figure 1.
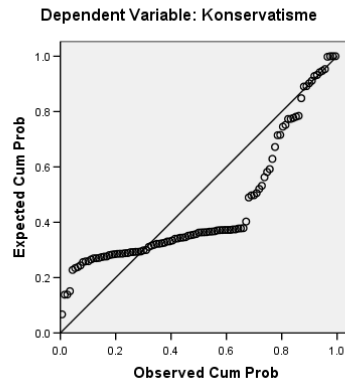

Figure 1. Normal PP Plot Graph

Source: SPSS Processing Data, 2023

The data points on the normal PP Plot of the regression normalized residuals deviate from the reference line, as shown in Figure 1, indicating that the residuals do not follow a uniform distribution around the line. There is no evidence to suggest that residual values follow a normal distribution.

b. Multicollinearity Test Results

In the context of this research, the aim of carrying out the multicollinearity test is to determine whether or not there is a regression model between the three independent variables which are symbolized by the variables financial difficulty (X1), leverage (X2) and the independent variables. , and leverage (X3) respectively. The aim of this investigation is to find out whether the model contains multicollinearity or not, by first developing a null hypothesis which assumes the presence of multicollinearity, then developing an alternative hypothesis which assumes the absence of multicollinearity. The research results are presented in Table 4.2 which is detailed as follows:

Table 2. Multicollinearity Detection

Variable	Tolerance	VIF
Financial distress	*0.943*	*1,060*
Debt covenant	*0.217*	*4,599*
Leverage	*0.223*	*4,481*

Source: SPSS Processing Data, 2023

Based on the information in Table 2, it can be seen that the Variance Inflation Factor (VIF) value for each indicator for all variables is more than the tolerance level of 0.1 (10%). In addition, a VIF value smaller than 10

indicates that the regression model does not contain multicollinearity. As a result, the regression model does not experience multicollinearity problems, and there is no correlational relationship between independent variables.

c. Autocorrelation Test Results

The Durbin-Watson test, which is a common technique for finding serial correlation, is used to find autocorrelation in regression models. This test is commonly used. In the context of regression analysis, the fact that the d statistic relies on a calculated error estimate is one of the most significant advantages of using such statistics. The hypothesis used to detect autocorrelation states that the null hypothesis assumes the existence of positive autocorrelation, while the alternative hypothesis implies the existence of negative autocorrelation. This is what is meant by the expression "the alternative hypothesis assumes the existence of negative autocorrelation". Autocorrelation testing was carried out using the Durbin-Watson (DW) method. The Durbin-Watson test results are shown in Table 3 below.

Table 3. Durbin Watson Auto-Correlation Detection Test

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
1	,591 [a]	,349	,330	2927433.45	,457

a. Predictors: (constans), Leverage, Financial difficulties, Debt Convenant
b. Dependent Variable: Conservatism
Source: SPSS Processing Data, 2023

The Durbin-Watson (DW) statistical value of 0.457 can be seen in Table 3. After analyzing the Durbin-Watson (DW) table at a significance level of 5% (0.05) , it can be seen that the sample size (n) is equal to 105, and there are 3 independent variables (k). The findings are as follows. The Durbin-Watson distribution table is used to calculate the Durbin-Watson (DU) statistic of 1.7501 and the Durbin-Watson (DL) limit of 0.8140. Positive autocorrelation can be seen from the discrepancy between the Durbin-Watson (DW) statistic calculated at 0.457 and the expected value assuming no autocorrelation (DU).

d. Heteroscedasticity Test Results

The heteroscedasticity test in this study determines whether the regression model has captured the relationship between accounting conservatism (Y) and the independent variables financial distress (X1), debt covenant (X2), and leverage (X3). Graphic analysis of the predicted plot of the dependent variable (ZPRED) and residual (SRESID) is shown in Figure 2.
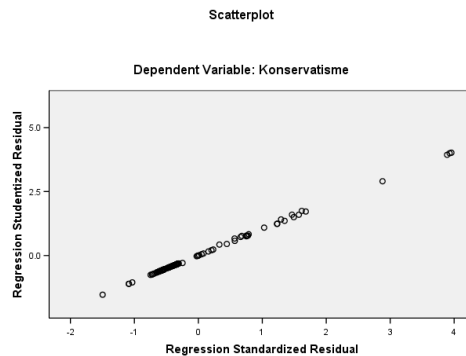

Figure 2. Heteroscedasticity Test Scatterplot Graph

Source: SPSS Processing Data, 2023

The plot of Figure 2 displays a clear trend, with data points evenly distributed across the Y-axis above and below zero. Based on the results of this research, the correlation between the absolute error value and each

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

indicator is not heteroscedastic. Furthermore, the regression model shows that the fundamental assumptions are met.

3. Multiple Linear Coefficient Regression Analysis

The use of multiple linear regression equation models, also called multiple linear regression analysis, involves regression of the independent variable and the dependent variable simultaneously. The equation obtained from the analysis findings is expressed as a multiple regression equation.

Table 4. Multiple Linear Regression Equations

Variable	Regression coefficient	T count	Sig.	Information
Financial distress	68402,223	1,158	0.249	Not significant
Debt covenant	-18618426,249	-4,717	0,000	Significant
Leverage	7375742,582	6,780	0,000	Significant

Constant	: 3348296,216	F count	: 18,040
R	: 0.591	Sig.	: 0,000
R square	: 0.349		

Source: SPSS Processing Data, 2023

Thus, the regression equation is as follows:
Y = 3348296.216 + 68402.223 _ _ _
From Table 4.3, the Regression Equation has the following meaning:
1. When all independent variables are held constant at 0, accounting conservatism has an estimated value of 3348296.216.
2. Financial problems have a positive regression coefficient of 68402.223 with accounting conservatism. A one unit increase in financial problems is associated with an increase in accounting conservatism of 68402.223 units.
3. The regression coefficient for debt covenant and accounting conservatism is -18,618,426,249. This shows that debt agreements have a detrimental relationship with accounting conservatism. An increase in debt covenants by one unit reduces accounting conservatism by 18618426.249.
4. Regression studies show that leverage and accounting conservatism are positively correlated with a coefficient of 7375742.582. This shows that leverage increases accounting conservatism by 7375742,582 units per unit.

4. Hypothesis Testing Results
a. t test (partial test)

Individual t-test results are shown in Table 5:

Table 5. t test

Variable	Regression coefficient	t count	Sig.	Information
Financial distress	68402,223	1,158	0.249	Not significant

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

Debt covenant	*-18618426,249*	*-4,717*	*0,000*	*Significant*
Leverage	*7375742,582*	*6,780*	*0,000*	*Significant*

Source: SPSS Processing Data, 2023

The following is a table presentation:

1. Table 5 shows 0.249 as significant. Financial problems (X1) exceed the significance criterion (0.05). Thus H0 can be accepted and Ha is discarded. This research does not find a significant relationship between financial difficulties (X1) and accounting conservatism (Y), thus rejecting the first hypothesis.
2. Table 5 data is significant at 0.000. The significance of Debt Covenant (X2) exceeds the predicted threshold (0.05). Thus H0 can be accepted and Ha is discarded. This analysis supports the second hypothesis by showing there is no statistically significant correlation between Debt Covenant (X2) and accounting conservatism (Y).
3. Table 5 data is significant at 0.000. The significance level of the leverage variable (X3) is below 0.05. H0 is rejected and Ha is supported by the results. The third hypothesis is supported by a statistically significant correlation between leverage (X3) and accounting conservatism (Y) in this study.

1. F Test (Simultaneous Test)

Simultaneous test results based on the F test are displayed in Table 6 as follows:

Table 6. F test

Model Summary ^{b}

	Model	Sum of Squares	Df	Mena Square	F	Sig.
1	Regression	4.6E+014	3	,330	18.40	,000 ^{a}
	Residual	8.7E+014	101			
	Total	1.3E+015	104			

a. Predictors: (constans), Leverage, Financial difficulties, Debt Convenant
b. Dependent Variable: Conservatism
Source: SPSS Processing Data, 2023

Based on Table 6, the significance of the occurrence of both events simultaneously is represented by the number 0.000. Because the significance level is less than 0.05, it can be concluded that all independent variables have a significant influence on the variables studied. This shows that difficulties in the banking sector (X1), debt covenants (X2), and leverage (X3) all have an impact on the level of conservatism seen in accounting (Y). As a result, the H0 hypothesis is not accepted, but the Ha hypothesis is accepted.

b. Coefficient of determination test

R-Square value in the analysis is shown in Table 7 as follows:

Table 7. Coefficient of Multiple Determination

Model Summary ^{b}

Model	R	R Square	Adjusted R Square	Std Error of the Estimate	Durbin-Watson
1	,591 ^{a}	,349	,330	2927433.45	,457

a. Predictors: (constans), Leverage, Financial difficulties, Debt Convenant

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

b. Dependent Variable: Conservatism
Source: SPSS Processing Data, 2023

The R Square value is 0.349, which means that the influence of the independent variable on the dependent variable is 34.9%, while the remaining 65.1% is influenced by other factors not included in the model. This information is based on Table 7.

B. Discussion
1. The influence of financial difficulties on accounting conservatism

The estimation results of the financial distress variable produce a significance value of 0.249. The observed significance value, 0.000, is above the predetermined threshold of 0.05 , indicating that the variable under consideration exhibits statistical significance. These findings indicate that there is no significant relationship between the financial difficulty variable (X1) and the level of accounting conservatism assessed by Y. Thus, Hypothesis 1 is not valid. The positive sign of the regression coefficient related to the financial distress variable shows that as the number of financial difficulties increases, the influence of this variable on the use of accounting conservatism in companies decreases. The results of this research are in line with the findings of research conducted by Gutika Putri (2018) which concluded that there is no significant relationship between implementing a conservative accounting style and experiencing financial difficulties. On the other hand, the results of this study are not in accordance with previous research conducted by Viola and Patricia (2016). The research mentioned above reveals a strong correlation between financial difficulties and the application of accounting conservatism. Based on the principles of positive accounting theory, managers may strategically choose to disclose large amounts of corporate profits during periods of financial distress, with the aim of improving their prospects for obtaining potential loans from creditors. Companies facing financial challenges will demonstrate an increased need for cash to maintain operational activities and meet their financial commitments, resulting in increased debt levels. Therefore, conveying negative messages to external stakeholders, especially creditors, will hinder their willingness to provide loans for the continuity of company operations. As a result, a company may fail to adhere to the principle of conservatism in the preparation of its financial statements during a period of financial distress, as the continued application of conservative accounting practices will result in an understatement of the financial statements. If a company is facing financial difficulties, it is likely that the company will not adhere to the concept of conservatism in preparing its financial reports.

2. The influence of Debt covenants on accounting conservatism

The estimation results for the Debt Covenant variable show a statistically significant value of 0.000. The P-value obtained is 0.000, which is smaller than the predetermined significance level, namely 0.05, this shows that there is a statistically significant relationship between the Debt Covenant variable (X2) and accounting conservatism (Y). Therefore, we can accept Hypothesis 2. The findings of this study indicate that a higher amount of debt is associated with a higher tendency among creditors to seek accounting conservatism. The reasons for creditors' desire to recover these assets are rooted in their personal interests and concerns over any fraudulent activities carried out by management. The increasing size of corporate debt creates an equally large possibility for corporations to violate their loan agreements. As a result, creditors are given greater authority to monitor and supervise the implementation of company activities. Loan contracts often have provisions that limit the borrower's activities, such as restrictions on dividend distributions and restrictions on the level of corporate assets. Additionally, these contracts provide a mechanism to enforce compliance with the terms set forth in the loan agreement. Therefore, creditors have the prerogative to request the use of accounting conservatism principles in preparing financial statements. This is due to the fact that creditors have an interest in safeguarding the capital they provide, with the aim of achieving profitable results. Ahmed et al. (2002) believe that the use of accounting conservatism is not only driven by creditor demands, but may also be motivated by the awareness of company leaders. Company managers often use the principle of accounting conservatism as a means of maintaining the company's image in the eyes of creditors, thereby reducing the risk of violating loan agreements. This research is in line with other research conducted by Budiandru et al (2019) and Jao and Ho (2019), which shows the significant impact of debt agreements on accounting conservatism.

3. The Effect of Leverage on Accounting Conservatism.

The estimation results of the leverage variable provide a significance value of 0.000. It is recommended that the leverage variable has a statistically significant influence on accounting conservatism (Y) if the significance threshold is less than 0.05 (0.000 0.05). Therefore, it can be concluded that Hypothesis 3 has been validated. The results of statistical studies conducted show that there is a substantial relationship between the leverage variable and accounting conservatism. It is reasonable to anticipate that there will be a further increase in the level of accounting conservatism if the amount of debt increases. It is hypothesized based on positive accounting theory,

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

which also incorporates the debt covenant hypothesis, that businesses with large levels of debt may exhibit a reduced amount of conservatism in their earnings reporting. This idea is included in positive accounting theory. This shift away from conservatism may even result in the use of less conservative reporting methods. When making choices regarding debt agreements, the motivation for these actions is rooted in the fact that businesses want to reduce the costs associated with renegotiating loan contracts as much as possible. The results of this research are in line with research findings conducted by Ursula and Adhvinna (2018) and Sari (2020) who both came to the same conclusion, namely that there is a statistically significant positive relationship between leverage and accounting conservatism. The conclusions of this study were consistent with these findings. In contrast to the results of previous research conducted by Hardiyanti et al (2022) which showed that leverage did not have a statistically significant effect on accounting conservatism, the results of this study show that leverage does have this effect. The positive coefficient of the leverage variable in the regression analysis means that an increase in leverage has a decreasing effect on the application of accounting conservatism. This conclusion can be drawn from the fact that the leverage variable has a positive coefficient. The lack of influence of leverage on accounting conservatism may be related to the fact that companies take a cautious approach in times of uncertainty, regardless of the scale of their debt levels. This may explain why leverage has no effect on accounting conservatism. This step was taken by the company in the hope of gaining the confidence and trust of creditors thereby increasing their willingness to provide financial assistance in the form of loans. As a result, companies do not prepare their financial reports by considering the prudential principle.

4. Financial difficulties, debt covenants and leverage simultaneously influence accounting conservatism

The estimation results were carried out by the F test and a significance value of 0.000 was obtained. This figure indicates that the significance threshold is lower than 0.05 (because 0.000 is less than 0.005). As a result, we can draw the conclusion that the fourth hypothesis is correct. The Adjusted R Square value is 0.349 or equivalent to 34.9 % of the total. This is determined by calculating the coefficient of determination. This shows that the independent factors, namely financial difficulties (X1), debt agreements (X2), and leverage (X3), account for a combined total of 34.9% of the variance in the dependent variable known as accounting conservatism. The remaining 64.9 % of the variance may be caused by other factors not taken into account in the study. The conclusion of this research is in line with the research findings of Hariyadi et al (2022) which states that the sum of all independent variables has a statistically significant influence on the variables studied. This shows that the characteristics of debt agreements, leverage, and financial crises all have an influence on accounting conservatism in their own ways.

V. CONCLUSION

A. Conclusion

The analysis of the previous chapter makes this finding possible.
1. This research finds that banking sector problems have a minimal impact on accounting conservatism. The t test shows a significance level of 0.249 which indicates that the result is greater than 0.05.
2. This research finds that debt covenants influence accounting conservatism. The t test shows a significance level of 0.000, lower than the conventional threshold of 0.05.
3. The data show substantial and partial relationships between leverage and prudent accounting. The t test with a significance level of 0.000 supports this view. The results obtained were below 0.05.
4. Research finds that financial crises, debt covenants, and leverage greatly influence accounting conservatism. The three components operate together. The F test, which produces a statistically significant result of 0.000 and a significance level greater than 0.05, supports this claim.

B. Suggestions

Some suggestions that may be made after analyzing the influence of financial distress, debt covenants, and leverage on accounting conservatism and conducting a thorough debate on the topic are as follows:
1. Companies should consider using debt as a source of funding because of the benefits it provides, which can help management place greater emphasis on developing a good capital structure strategy. This is because it is possible to reduce tax payments and encourage conservative accounting practices by reducing the interest paid on debt.
2. The corporation plans to allocate more future funds to operational costs and business development to maintain current growth rates. Additionally, corporations must consider the needs of their shareholders if they want to continue to earn their trust and loyalty. Implementation of operational control methods, with a focus on cost control to avoid uncontrolled cost increases, is essential for efficient growth management.

Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
Mohamad Johan Efendi[1], Khasbulloh Huda[2], Rachmad Sholeh[3], Sugeng Eko Yuli Waluyo[4]

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Determination of Debt Covenant, Laverage, Financial Distress Against Accounting Conservatism
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Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty

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ABSTRACT

Purpose: Over the last few years, MSMEs have become the main motor in driving economic growth. In today's increasingly fierce competitive conditions, business competitors continue to strive to provide high quality services, create an excellent brand image, with the aim of meeting customer satisfaction and maintaining their loyalty. The aim of this research is to empirically examine the relationship between service quality, store image, customer satisfaction, and customer loyalty.

Design/methodology/approach: We collected research data on consumers who purchased MSME products at the Mojokerto City Center for Featured Products, using accidental sampling techniques. We propose a conceptual model from previous research and consider it in the context of superior MSME products in Mojokerto City. The analysis technique used is multiple linear regression analysis using the SPSS computer application program.

Findings: The research results show that service quality and store image significantly impacts customer loyalty. Likewise, the research results also confirm that customer satisfaction significantly impacts customer loyalty at the Mojokerto City Center for Featured Products. In addition, the research results reveal that customer satisfaction strengthens the influence of store image on customer loyalty. This research suggests implications for managers, limitations and directions for future research of the above findings.

Paper type: Research Paper

I. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) in Indonesia continue to grow rapidly and have an important role in the Indonesian economy, in various fields. Along with the times, the growth of the creative economy has increased the activities of micro, small and medium businesses in selling to customers to meet the needs of themselves, their families or other people around them. Data from the Ministry of Cooperatives and Small and Medium Enterprises. Currently there are 65.4 million MSMEs in Indonesia which employ 114.7 million people or around 56% of the workforce in Indonesia. Apart from that, MSMEs also contribute more than 60% to the country's GDP. (MSME Empowerment Report, 2022:5). Data from the Ministry of Cooperatives and Small and Medium Enterprises also shows that the contribution of MSMEs to GDP continued to increase before the pandemic. However, this contribution decreased to 37.3% during the pandemic. (MSME Empowerment Report, 2022:13). The government ensures that MSMEs will return to being heroes of national economic revival in 2023. Minister of Tourism and Creative Economy/Head of the Tourism and Creative Economy Agency (Menparekraf/Kabaparekraf) Sandiaga Salahuddin Uno stated that in 2023 these MSMEs will again be heroes of the national economy, opening up business and employment opportunities, where the target in 2024 is 4.4 million new and quality jobs.

Micro, Small and Medium Enterprises are productive businesses in the economic sector carried out by individuals or business entities, stand alone, and have a contributing role to national growth. MSMEs experience

an increase every year, being able to become a forum for creating productive jobs and increasing people's income. MSMEs prove that the consistent development of MSMEs is able to make a real contribution to the national economy. One of the MSMEs that contributes to the national economy is the MSMEs of Mojokerto Regency. Mojokerto Regency has the potential to develop MSMEs, as evidenced by the increase in the number of MSMEs every year. Mojokerto Regency currently has 155,354 micro business units. 3 Mojokerto Regency MSMEs have various kinds of businesses, ranging from agricultural products, crafts, food and fashion. One of the famous outlets in Mojokerto is the Mojokerto Featured Product Center at Sunrise Mall. Mojokerto City Featured Products (PPUKM) on the 1st floor of Sunrise Mall will also enliven the 2023 Mojokerto Shopping Festival (Mojo Shop Fest). Visitors can shop for various kinds of quality products created by creative business groups in Onde-Onde City. Superior MSME (Micro Small and Medium Enterprises) products from Mojokerto City are now available at Sunrise Mall Floor 2, Jl Benteng Pancasila No 5, Mojokerto City. There is a special stand for superior products that have been selected from 34 thousand MSME products throughout Mojokerto City. The Mojokerto City Government is trying to answer the challenges of the industrial revolution 4.0. The choice of PT Bhineka is due to its experience which has been established for 28 years. Also collaborating is Bank Jatim as a custodian bank so that it will make financial reporting and auditing easier. The problems that arise are usually related to less than optimal service by improving the store's image for customer satisfaction, thereby increasing customer loyalty.

Service quality is the goal of business actors in running a business like this. Then according to service quality is defined as the difference between customers' expectations for service performance before the service encounter and their perceptions of the service received. (Dawit and Adem, 2018). According to Indrasari (2019:62) concluded that service quality is basically centered on efforts to fulfill customer needs and desires as well as delivery provisions to balance customer expectations. Based on several expert opinions above, service quality is the totality of the features and characters of an item or service that has the ability to meet stated or implied needs. According to Arief and Widyatmoko (2018), store image is an understanding of the shop in the minds of customers according to the characteristics/attributes of the shop so that customers can differentiate between one shop and another. Customers also have the right to choose a shop that is comfortable for shopping, such as in terms of parking space. This finding is supported by Joseph (2018) who stated that store image has a significant positive impact on customer loyalty. The better a store's image, the more customer loyalty will occur. Apart from the store image, the influence of service quality is also a significant thing in consumer assessment. If a store has a positive influence on the store's image and service quality in the minds of consumers, then this is where customer satisfaction emerges which has implications for customer loyalty. According to Kodua and Farley (2020), satisfied customers will show loyalty through their actions and attitudes, and that customer satisfaction will drive company growth. According to Kotller Keller (2009) in (Widayatma & Lestari, 2018), satisfaction is pleasure or disappointment that arises through comparing the perceived work results of goods or products against expectations. So the conclusion is that consumer satisfaction is how far a person perceives it when comparing product results and making judgments about products or services related to fulfilling consumer expectations and needs. Therefore, a store must have customer *service* so that customers are satisfied and they will shop again.

The implications of customer loyalty can be defined as the closest step to customer repurchase behavior. According to Atlantis Press (2018) customer loyalty is a strategic effort that is more effective than efforts to attract new customers. Customer loyalty reflects service, store image and customer satisfaction. According to Kodua and Farley (2020), satisfied customers will show loyalty through their actions and attitudes, and that customer satisfaction will drive company growth. Therefore, the importance of customer satisfaction and loyalty plays a very important role in customer loyalty, not guaranteeing repeat purchases, Based on the background of the research above, it was then taken into consideration for the author in conducting research with a discussion that includes "The Influence of Service Quality, Store Image, and Customer Satisfaction as a Moderation of Customer Loyalty at the Mojokerto City Center for Featured ProductsOutlet ".

A. Literature Review and Hypothesis
1. Human Resources Management

Kaehler & Grundei (2019) define human resource management as an ongoing process that assures firms and other entities have qualified workers who can be deployed when needed. The science and art of managing the relationships and duties of the workforce so that they are successful and efficient in helping the organisation, employees, and society achieve their goals is human resource management (Hasibuan, 2019:10). HR management is crucial to a company's strategy. Schuler, et al. in Sutrisno (2017:6) define HRM as "the application of a set of interrelated functions and activities with the overarching goal of maximising the value contributed by an organization's human resources to the achievement of that organization's strategic objectives" (emphasis added).

Page | 1158

Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

2. Service Quality

Indrasari (2019:62) states that service quality is about meeting customer needs and delivering accurately. Service quality refers to the accuracy in meeting customer needs and expectations. Tjiptono (2014:268) and Kotler and Keller (2016:156) define service quality as a product or service's full set of features and characteristics that meet explicit and implicit customer needs. Service quality is linked to profitability, cost savings, and market share. Service quality includes the expected performance of service providers and their facilities and resources (Jang, Kim, & Lee, 2016). Client perceptions, which determine an organization's service delivery success, are inextricably linked to the above criteria. These views affect customer happiness and corporate profitability. This analysis concludes that service quality benefits both the organisation and its customers, building long-term, mutually beneficial partnerships. Therefore, to meet client needs, the organisation must constantly improve its process, human resources, and internal environment. Parasuraman, Zeithaml, and Berry (2011) suggest a service quality framework, per Emi (2022). It measures tangibility, reliability, responsiveness, empathy, and service assurance.

3. Store Image

Wu et al. (2011) define a store's "image" as a customer's mental representation of its "function," "quality," and "atmosphere." The public's perception of a company is built on its consumers' memories (Keller in Puri, 2017). Customers don't "see" firms -- they just have vague mental images of them. According to Liat, Mansori, and Huei (2014), focusing on the store's image can bridge the gap between perceived service quality, customer satisfaction, and customer loyalty. Customers' satisfaction leads them to return and show loyalty, which boosts the store's reputation with new customers. simply sticking to one vendor. According to this definition, a store's image is the total of its pieces, including consumers' impressions and views based on sensory input. The brain's response to these stimuli can lead to perception, which involves selecting, organising, and interpreting input from several sources to form an accurate mental image of one's surroundings. Thus, a retail image in this study affects the business. For a firm or group to gauge public impression, its location must be precise. Shop cleanliness improves customers' perceptions of the store, encouraging them to stay longer. Store cleanliness is part of a company's reputation, which is valuable. A positive brand image will boost sales and customer satisfaction. Harrison (2017) defines a firm's public persona as its "personality," "reputation," "mark," and "company identity."

4. Customer Satisfaction

Customer satisfaction depends on how well a product or service fits their demands (Tjiptono & Diana, 2019, p. 126). Kotler and Keller (2018:138) define satisfaction as a person's delight or despair from comparing a product's performance to their expectations. Customers won't be happy if employees don't comply. Customer satisfaction is high if staff do their jobs. Indrasari (2019, p. 87) defines customer satisfaction as how a person feels after comparing the product to his expectations. According to the experts, customer satisfaction is a feeling of pleasure or disappointment after using and enjoying Semar Sell employees' services or goods, with the dimension of staying loyal, buying new company products, and recommending products to others. Tjiptono in Indrasari (2019:92) defines customer happiness as meeting expectations, repurchasing, and recommending.

5. Customer Loyalty

Bondesson defines customer loyalty as "the extent to which a customer remains committed to a brand over time," in Sulibhavi and Shivashankar (2017). client-centric organisations need client loyalty, according to Setó-Pamies (2012). Service providers must be trusted to deliver as claimed. Jang et al. (2016) describe customer loyalty as the next stage in consumer satisfaction with the company's products and services. Based on what has been discussed, modern firms must reward their most loyal customers to succeed. Kotler and Keller (2016:57) list product loyalty, buy frequency, and referrals as customer loyalty indicators. Referalls, Total Company Resistance, Retention, keeping employees, etc.

II. METHODS

Sugiyono (2017) researched the Mojokerto Center for Superior Products on Jl Benteng Pancasila No 5, Mojokerto City. Arikunto (2010) defines a research topic as a place where researchers collect data on independent variables. This research only covers customers of the Mojokerto Featured Product Center Outlet. Sugiyono (2014:148) defines population as a large group of objects or people with certain characteristics determined by academics to be studied and analyzed. This research examines an infinite population of all customers of the Mojokerto Center for Featured Products store. Ferdinand (2014:171) defines a sample as part of a wider group. The population is well represented by this sample. This survey involved 100 customers of the Mojokerto Featured

Product Outlet. The sample method for this research is Accidental Sampling. SPSS was used to assess the data for this study using the MRA modeling method.

III. RESULTS AND DISCUSSION

The following is a list of the findings from this study, which are displayed in various tables below:
1. Multiple linear regression

Table 1 Multiple linear regression test results

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,599	,364		1,645	,103
	Service quality	,144	,067	,169	2,149	,034
	Store Image	,737	,092	,633	8,038	,000

a. Dependent Variable: Customer Loyalty
Source: Processed SPSS output primary data, 2023

Based on the results of the multiple linear regression test in table 1, the following regression equation is obtained:
1. Based on the constant value of 0.599, client loyalty at Mojokerto City Center for Featured Products outlet increases by 0.599 when service quality and store image are both 0.
2. Service quality variable (X1) has a positive regression coefficient of 0.144. If all other variables remain fixed, Mojokerto City Center for Featured Products customer loyalty will improve by 0.144 for every 1 increase in service quality.
3. The store image variable (X2) has a positive regression coefficient of 0.737. Customer loyalty increases by 0.737 for every store image increase of 1 time, assuming other variables remain unchanged.

Table 2 Multiple linear regression test results Moderation 1

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,976	,360		2,712	,008
	Service quality	,032	,091	,037	,351	,727
	Customer satisfaction	,615	,089	,604	6,912	,000

Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

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| Moderation 1 | ,031 | ,019 | ,217 | 1,663 | ,100 |

a. Dependent Variable: Customer Loyalty
Source: Processed SPSS output primary data, 2023

Based on the results of the multiple linear regression test in table 2, the following regression equation is obtained:
1. The constant value of 0.976 indicates that Customer Satisfaction moderates the service quality variable. At 0, Mojokerto City Center for Featured Products customer loyalty will improve by 0.976.
2. Service Quality variable regulated by Customer Satisfaction (Z) has a positive regression coefficient of 0.031. If all other factors remain equal, customer loyalty will increase by 0.031 for every increase in Service Quality tempered by Customer Satisfaction by 1.

Table 3 Multiple linear regression test results Moderation 2

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,563	,358		1,571	,119
	Store Image	,268	,108	,230	2,485	,015
	Customer satisfaction	,398	,089	,391	4,485	,000
	Moderation 2	,047	,018	,303	2,653	,009

a Dependent Variable: Customer Loyalty
Source: Processed SPSS output primary data, 2023

Based on the results of the multiple linear regression test in table 3, the following regression equation is obtained:
1. The constant value of 0.563 indicates that Customer Satisfaction moderates the store image variable. If the value is 0, customer loyalty at Mojokerto City Center for Featured Products outlet increases by 0.563.
2. The store appearance variable has a positive regression coefficient of 0.047 moderated by Customer Satisfaction (Z). Assuming other variables remain fixed, customer loyalty increases by 0.047 for every store image increase in Customer Satisfaction moderation of 1 time.

2. t test

Table 4 T Test Results

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,599	,364		1,645	,103

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Service quality	,144	,067	,169	2,149	,034
Store Image	,737	,092	,633	8,038	,000
Customer satisfaction	,519	,075	,509	6,891	,000

a Dependent Variable: Customer Loyalty
Source: Processed SPSS output primary data, 2023

From the table above, the following can be implied:

1. After conducting a partial test (t-test) between service quality (X1) and customer loyalty at the Mojokerto City Center for Featured Productsstore (Y), the t value was determined as 2.149 with a significant value of 0.034. With a significance value below 0.05, the estimated t value is smaller than the t table, 2.149> 1.988. Thus, service quality (X1) significantly affects customer loyalty at Mojokerto City Center for Featured Products.

4. The partial test (t-test) between store image (X2) and customer loyalty at Mojokerto City Center for Featured Productsoutlet (Y) yielded a t value of 8.038. Calculated t value is larger than t table, or 8.038 > 1.988 with a significance value below 0.05. Thus, store image (X2) significantly affects customer loyaltyat the Mojokerto City Center for Featured Products (Y).

5. The partial test (t-test) between customer satisfaction (Z) and loyalty at Mojokerto City Center for Featured Productsstore (Y) yielded a t value of 6.891. With a significance value below 0.05, the computed t value is 6.891 > 1.988. The Customer Satisfaction variable (Z) significantly affects customer loyalty at the Mojokerto City Center for Featured Products (Y).

3. Test of the Coefficient of Determination R ^{2}

Table 5 Test Results for the Determination Coefficient R ^{2}

Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	*.726(a)*	,527	,518	,36717	1,874
Moderation 1	*.787(a)*	,620	,608	,33107	1,948
Moderation 2	*.837(a)*	,701	,691	,29376	2,033

a Dependent Variable: Customer Loyalty
Source: Processed SPSS output primary data, 2023

In conclusion, Image and Service Quality, tempered by Customer Satisfaction, may promote Customer Loyalty, as shown by the 52.7% R 2 value. According to SPSS statistics, Moderation 1 increased 62% and Moderation 2 70.1%. Satisfied customers buy from that firm. Brand image, service quality, and client loyalty are moderated by satisfaction.

A. Discussion

1. The Influence of Service Quality on Customer Loyalty at the Mojokerto City Center for Featured Products

The findings of the t-test conducted on the relationship between the service quality variable (X1) and customer loyalty at the Mojokerto City Center for Featured Productsstore (Y) revealed a computed t value of 2.149, which was found to be statistically significant at a level of 0.034. This indicates that the estimated t value is less than the critical t value from the t table, namely 2.149 is more than 1.988, at a significance level of less

Page | 1162

Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

than 0.05. Therefore, it can be inferred that the variable of service quality (X1) has a substantial impact on customer loyaltyat the Mojokerto City Center for Featured Products. Service quality has a direct impact on customer loyalty. When a company consistently provides high-quality service, it not only meets but often exceeds customer expectations. This leads to a positive perception of the company and builds trust. Reliability in delivering this level of service is crucial, as customers need to have confidence that their experience will be consistently satisfactory. Additionally, responsiveness plays a significant role; a company that promptly addresses customer needs and concerns demonstrates a commitment to their satisfaction. Overall, a high level of service quality not only satisfies customers in the short term but also fosters long-term loyalty. The findings of this study have relevance to the findings of prior research published in a scholarly publication by Mujajakurrahmah (2022), whereby it was concluded that service quality has a noteworthy beneficial impact on customer loyalty. Furthermore, the findings of Inawati, Yuni et al. (2023) provide further support for the study results, indicating that the variable of customer satisfaction has been empirically shown to enhance the association between service quality and user loyalty.

2. The Influence of Store Image on Customer Loyalty at the Mojokerto City Center for Featured Products

The acquired t value of 8.038 from the partial test (t-test) conducted between the store image variable (X2) and customer loyalty at the Mojokerto City Center for Featured Products (Y) indicates the findings. This demonstrates that the computed t value exceeds the critical t value of 1.988, with a significance level below 0.05. Therefore, it may be inferred that the variable representing store image (X2) has a substantial impact on customer loyaltyat the Mojokerto City Center for Featured Products (Y). Store image has a big influence on customer loyalty. It includes the customer's overall perception, feelings and impression of the retail store. A positive store image can significantly increase customer satisfaction and trust. A well-maintained, organized, and aesthetically pleasing store environment can create a pleasant shopping experience, making it more likely that customers will return again. Additionally, a strong store image can differentiate a brand from competitors and foster a sense of attachment or emotional connection. Consistency in maintaining the desired store image is critical, as this strengthens brand identity and strengthens customer loyalty over time. In essence, an attractive store image not only attracts new customers but also strengthens the loyalty of existing customers. The findings of this study bear relevance to the outcomes of prior research published in a scholarly publication by Maulana Agung Prakoso (2020), wherein it was concluded that the store image has a noteworthy and favourable impact on customer loyalty. The findings of this study are pertinent to the findings of prior research published in a scholarly publication by Mujajakurrahmah (2022), which concluded that shop appearance has a notable beneficial impact on customer loyalty.

3. The Influence of Customer Satisfaction on Customer Loyalty at the Mojokerto City Center for Featured Products

The computed t value of 6.891 was obtained from the partial test (t-test) conducted to analyse the relationship between the variable Customer Satisfaction (Z) and customer loyalty at the Mojokerto City Center for Featured Productsstore (Y). The analysis indicates that the computed t value exceeds the critical t value of 1.988, namely 6.891, at a significance level of less than 0.05. Therefore, it can be inferred that the variable of Customer Satisfaction (Z) has a substantial impact on customer loyalty at the Mojokerto City Center for Featured Products (Y). This finding demonstrates that satisfaction has a substantial impact on loyalty, indicating that higher levels of customer satisfaction correspond to increased customer loyalty. Therefore, if Mojokerto City Center for Featured Products successfully achieves a high level of user happiness, it will subsequently enhance customer loyalty, resulting in frequent purchases at the Mojokerto City Center for Featured Products. The findings of Nurutami, Sri Sitiani, Marnis, Kornita, and Sri Endang (2021) align with previous research, indicating that customer pleasure has a significant impact on customer loyalty.

4. The Moderating Effect of Customer Satisfaction on Service Quality on Loyalty at the Mojokerto City Center for Featured Products

The regression coefficient for the Service Quality variable, when moderated by Customer Satisfaction (Z), is 0.031, indicating a positive relationship. This implies that a one-unit improvement in Service Quality, moderated by Customer Satisfaction, is associated with a 0.031 increase in customer loyalty, holding all other factors equal. In summary, the relationship between the variables Image and Service Quality, when moderated by Customer Satisfaction, has the potential to enhance Customer Loyalty. This finding aligns with the aforementioned findings, namely the R^2 value of 52.7% for the variables Image and Service Quality in relation to Customer Loyalty. The SPSS data computation reveals a 62% rise in Moderation 1 and a 70.1% increase in Moderation 2, measured in percentage points. When customers have satisfaction with a firm, they are more inclined to engage in repeat purchases from such organisation. The moderating role of customer happiness in the relationship between brand image, service quality, and customer loyalty is evident.The study findings indicate

that visitor happiness has the potential to attenuate the impact of service quality on customer loyalty. This finding aligns with the study conducted by Kumalaningrum et al. (2016), which suggests that satisfaction plays a moderating role in the relationship between service quality and customer loyalty. The study conducted by Inawati, Yuni, and colleagues (2023) demonstrates that the variable of customer satisfaction serves as a moderator in the association between service quality and user loyalty. This finding demonstrates that the establishment of customer loyalty may be achieved via the enhancement of service quality. It is evident that a high level of service quality is directly correlated with increased user pleasure, hence exerting a significant impact on overall user contentment.

5. The Moderating Effect of Customer Satisfaction with Store Image on Loyalty at the Mojokerto City Center for Featured Products

The regression coefficient for the store image variable, when moderated by Customer Satisfaction (Z), is 0.047, indicating a positive relationship. This implies that a one-unit rise in store image within the context of Customer Satisfaction moderation is associated with a 0.047 increase in customer loyalty, provided all other factors remain constant. In summary, based on the aforementioned findings, it can be inferred that the variables of Image and Service Quality, when moderated by Customer Satisfaction, have the potential to enhance Customer Loyalty. This aligns with the observed R^2 value of 52.7% for the relationship between the Image and Service Quality variables and Customer Loyalty. The SPSS data computation reveals a significant rise of 62% in Moderation 1 and 70.1% in Moderation 2. When customers experience satisfaction with a certain firm, they are more inclined to engage in repeat purchases from this organisation. The moderating role of customer happiness in the relationship between brand image, service quality, and customer loyalty is evident.The empirical findings of the study demonstrate that the impact of corporate image on loyalty is mitigated by customer satisfaction. This implies that the level of satisfaction has the ability to moderate the impact of corporate image on loyalty. In other words, the moderating effect of company image on loyalty demonstrates a substantial positive association with loyalty. According to a study conducted by Nurutami, Sri Sitiani, Marnis, Kornita, and Sri Endang (2021), it has been shown that satisfaction plays a moderating role in the relationship between business image and loyalty.

V. CONCLUSION

A. Conclusion

From the results presented above, the conclusions are as follows:

1. After conducting a partial test (t-test) between service quality (X1) and customer loyalty at the Mojokerto City Center for Featured Products (Y), the t value was determined as 2.149 with a significant value of 0.034. With a significance value below 0.05, the estimated t value is smaller than the t table, 2.149> 1.988. Thus, service quality (X1) significantly affects customer loyalty at Mojokerto City Center for Featured ProductsOutlet.

2. The partial test (t-test) between store image (X2) and customer loyalty at Mojokerto City Center for Featured Products (Y) yielded a t value of 8.038. Calculated t value is larger than t table, or 8.038 > 1.988 with a significance value below 0.05. Thus, store image (X2) significantly affects customer loyaltyat the Mojokerto City Center for Featured ProductsOutlet (Y).

3. The partial test (t-test) between customer satisfaction (Z) and loyalty at Mojokerto City Center for Featured Products (Y) yielded a t value of 6.891. With a significance value below 0.05, the computed t value is 6.891 > 1.988. The Customer Satisfaction variable (Z) significantly affects customer loyalty at the Mojokerto City Center for Featured ProductsOutlet (Y).

4. The Service Quality variable moderated by Customer Satisfaction (Z) has a positive regression coefficient of 0.031. If all other factors remain equal, customer loyalty will rise by 0.031 for every increase in Service Quality tempered by Customer Satisfaction by 1. Customer Satisfaction may boost Customer Loyalty by moderating Service Quality. The R^2 value for Service Quality on Customer Loyalty is 52.7%, which matches the data above. The SPSS processing data above shows a 62% improvement in Moderation 1.

5. Store image variable moderated by Customer Satisfaction (Z) has a positive regression coefficient of 0.047. If all other factors remain fixed, customer loyalty will improve by 0.047 for every store image increase in Customer Satisfaction moderation of 1 time. Customer Satisfaction may boost Customer Loyalty by moderating Store Image. This matches the data above, where Image's R^2 value on Customer Loyalty is 52.7%. SPSS data shows a 70.1% rise in Moderation 2.

B. Suggestions

There are several suggestions for further research, namely to maintain customer satisfaction and increase customer loyalty in Semar Cell, the brand image and product quality must be improved according to the results

Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

of this research. For further research, the variables for maintaining customer loyalty in order to increase sales at Mojokerto City Center for Featured Productswill be more varied in order to show maximum results such as *value of mouth,* etc.

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Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
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Implementation of Natural Language Processing for Spam Email Detection in Outcome based Education (OBE) Application

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ABSTRACT

Purpose: The Natural Language Processing (NLP) approach has been proven to be effective in spam detection in e-mail because of its ability to process text and identify patterns and distinctive characteristics of spam email.

Design/methodology/approach: Methods in this NLP approach include data pre-processing, such as removing punctuation, irrelevant common words, tokenization, stemming, and others, as well as classification techniques such as Support Vector Classifier (SVC), Naive Bayes, and others. In testing various models, there is one model that shows the highest precision with the number 0.98.

Findings: This study shows that the NLP approach provides better performance in spam detection compared to other methods. However, it is necessary to improve technology and develop more complex detection methods to improve the performance and accuracy of the email spam detection model

Paper type: Research paper

Keyword: *NLP, Spam, Email, Machine Learning, Detection*

I. INTRODUCTION

The current technological advancements have significantly impacted communication through letters. It is rare to find people using postal services to send letters, as physical letters are no longer the primary means of communication between individuals. Letters have transformed into a digital format known as email. The existence of email facilitates electronic letter delivery based on specific needs or purposes (Dada, 2019).

Email, also known as electronic mail, is a popular communication method used in both internal and internet networks for information exchange. Its convenience has kept email in demand, even serving as an authentication tool in applications and social media synchronization, such as Instagram, Facebook, and Twitter. While email has significant benefits, its misuse can have negative impacts if not used wisely. Many email abuses, such as spam containing advertisements or fraudulent schemes, can harm other users (Ruskanda, 2019).

Spam, meaning Stupid Pointless Annoying Messages, comes in various types, including advertisements, phishing, malware viruses, scams, and others (Zainab, 2021). Spam can be distinguished from non-spam emails, mainly by observing the subject and content of the email (Madhavan, 2020). The subject refers to the title or topic in the email, and in spam, the subject often contains promotional words like "Discount for You." Meanwhile, the content or core of the email sent by spammers is also an important indicator in differentiating spam from other emails (Bhowmick, 2016).

The development of email is not without issues, including the possibility of spam emails entering someone's account. This causes users difficulty in distinguishing whether an email has the potential to be dangerous or just junk. In spam emails, various unwanted content, such as useless files or irrelevant documents, may be present. Moreover, spam in emails can also pose a dangerous threat if it contains viruses or malware that can harm users (Switalski, 2019). In this research, it was tested on the E-OBE (Outcome-Based Education) application (Masdiyasa, 2022).

To address these issues, this research developed a spam detection method in emails using Natural Language Processing (NLP) through the E-OBE application. NLP is one of the artificial intelligence technologies that enables computers to understand, analyze, and manipulate human language in a way similar to humans (Khensous, 2023). In email spam detection, NLP is used to examine the content of email messages and identify whether the email falls into the category of spam or not (Pria, 2021).

Many sources provide explanations regarding spam detection, where efforts have been made to detect spam through various methods with the aim of finding an accurate detection model or obtaining a precise classification model, as described in the reference "Performance Evaluation of Machine Learning Algorithms for Email Spam Detection" [6], which successfully found a high accuracy level in the machine learning model they used. Other research includes that conducted by Pragna (2019), which discusses Natural Language Processing (NLP) and Text Classification in the research context. This study aims to address the problem of classifying messages as spam or ham by applying NLP methods such as Tokenizing, part-of-speech tagging, stemming, and chunking. Model training is conducted using various machine learning algorithms, including K-Nearest Neighbors (KNN), Decision Tree Classifier, Random Forest Classifier, Logistic Regression, SGD Classifier, Multinomial Naive Bayes (NB), and Support Vector Machine (SVM). The experimental results show that the SVM algorithm achieves an average accuracy of 98.49% on the 'SMS Spam Collection' dataset. Another researcher, Rayan (2021), discusses feature extraction and classification to detect email spam and temporary email addresses. The proposed Natural Language Processing-based Random Forest (NLP-RF) approach aims to achieve the research goals. With the help of this approach, spam emails can be reduced, enhancing the accuracy of spam filtering as NLP enables the system to detect the natural language used by users, and the Random Forest approach uses multiple decision trees and random nodes to filter spam [8]. In contrast, the study conducted by Salloum (2021) focuses on using Natural Language Processing (NLP) and Machine Learning (ML) to detect phishing emails. This research analyzes various NLP strategies currently used to identify phishing emails, with an emphasis on ML strategies. These approaches are evaluated and compared, providing an overview of the problem, immediate solutions, and future research directions.

Based on the aforementioned studies, this research discusses email spam detection using NLP implemented in the E-OBE application. E-OBE is an application used for an outcome-based education approach, focusing on concrete, measurable, and observable learning achievements (Masdiyasa, 2023). In OBE, learning objectives are clearly defined, and the learning process is designed to achieve these objectives. This approach emphasizes the importance of evaluating the outcomes achieved by students as indicators of success, rather than merely assessing the learning process or acquired knowledge, which is done based on the Information System. The E-OBE system provides a user-friendly dashboard. Additionally, the study explores NLP techniques used in email spam detection, along with their strengths and weaknesses. The aim of this research is to contribute to email users in addressing the issue of email spam and enhancing productivity in email usage, with its implementation applied to the E-OBE application.

II. METHODS

It should be mention time and place of research in first part. All materials and methods that used such chemical for analysis, treatment and experimental design must be stated clearly and briefly. State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results. A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lays the foundation for further work. a Calculation section represents a practical development from a theoretical basis. Materials and methods must be written using 400 until 600 words. Figure 1 depicts the research method that can be conducted in the detection of email spam using Natural Language Processing (NLP).
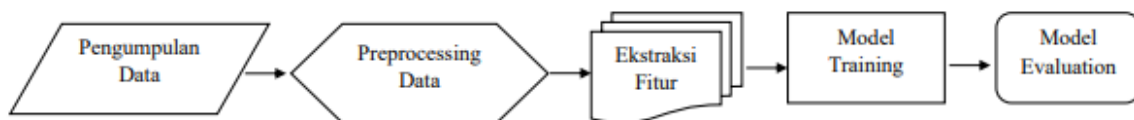

Figure 1. Flow of Research Method

The following are the steps in this research:
1. Data Collection.
   The first step is to collect email data that will be used to train and test the spam email detection algorithm. The data should include various types of emails, both spam and non-spam. Data collection can be done by

extracting data from various sources or using publicly available datasets. In this article, the data was obtained from a public site that provides access to the dataset (Bharathi, 2020). The total amount of data in this dataset is 6046, with 1896 of them being spam and 4150 being non-spam. These data are numbered from 0 to 6046 for processing purposes.

2. Data Pre-processing

After collecting email data, the next step is to perform data pre-processing (Babanejad, 2020). This stage involves cleaning the data, removing special characters, converting all letters to lowercase, removing common words, and so on. By doing this data pre-processing, email data will become cleaner and more structured, helping to build an accurate spam email detection model (Bacanin).

   a. Cleaning: Cleaning the data by removing punctuation, hashtags, special characters, and other symbols, as well as converting text to lowercase, is a step taken (Jakhotiya, 2022). Words like "Book" and "book" have the same meaning, but if not converted to lowercase, they will be represented as different words in the vector space model, resulting in more dimensions (Khader, 2019).

   b. Tokenize: Tokenizing means separating sentences into words, so documents can be broken down into smaller parts. This makes it easier to analyze the words in the document (Lourdusamy, 2018).

   c. Removing stop words: Removing words that do not have meaning if there are no other words like: and, I, or.

   d. Stemming: Changing words that originally had affixes to no longer have affixes or revert to their original base word.

3. Feature Extraction After email data has undergone pre-processing, the next step is to perform feature extraction. Features that can be used in spam email detection include specific keywords, word frequency, and email length. These features will be inputs to the spam email detection model (Tabassum, 2020).

4. Model Building After extracting features, the next step is to build the spam email detection model. Models can be created using various Machine Learning algorithms such as Gaussian Naive Bayes, Multinomial Naive Bayes, Bernoulli Naive Bayes, Decision Tree, K-Nearest Neighbors (KNN), Support Vector Classifier (SVC), Logistic Regression, and Stochastic Gradient Descent (SGD) Classifier. This model will be trained using pre-processed and feature-extracted email data.

5. Model Evaluation After the model is built, the next step is to evaluate the model. This evaluation is done to measure the performance of the model in detecting spam and non-spam emails. Some metrics that can be used in model evaluation include accuracy and precision (Collobert, 2021).

6. Testing After the model has been successfully tested and proven accurate in detecting spam emails, the next step is to test it on a dataset of emails that has never been seen before. This testing aims to evaluate the model's performance in detecting spam emails in general.

By implementing the research methods above, it is expected to produce an accurate spam email detection model. This model is expected to help email users overcome the common problem of spam emails.

Some of the displays used in the E-OBE application for testing are shown in Figure 1 and Figure 2. Figure 1 is the initial view of the website, featuring the home page with various menus such as LOGIN, Home, Quick Guide to the E-OBE Application, and Account Registration. On this home page, there is also a brief description of the E-OBE Application itself and the system flow of the E-OBE Application. Before logging in as a user, users can click on the LOGIN menu to enter as an Admin, Curriculum, Lecturer, or Student. Thus, when this application is used for the email verification process to check whether it enters the email contacts or spam, and this is tested on several users, using NLP methods will enable detection. Figure 2 shows the results of the email verification.
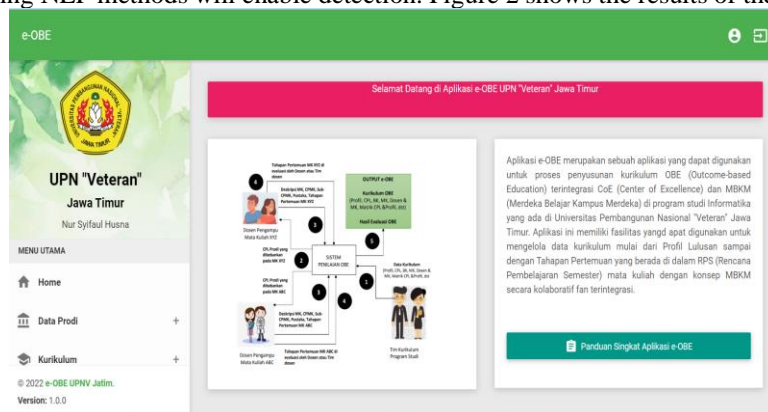
Implementation of Natural Language Processing for Spam Email Detection in Outcome based Education (OBE) Application
I Gede Susrama Mas Diyasa, Ikbar Athallah Taufik, Dimas Dzaky Daniswara, Ahmad Adiib Aminullah

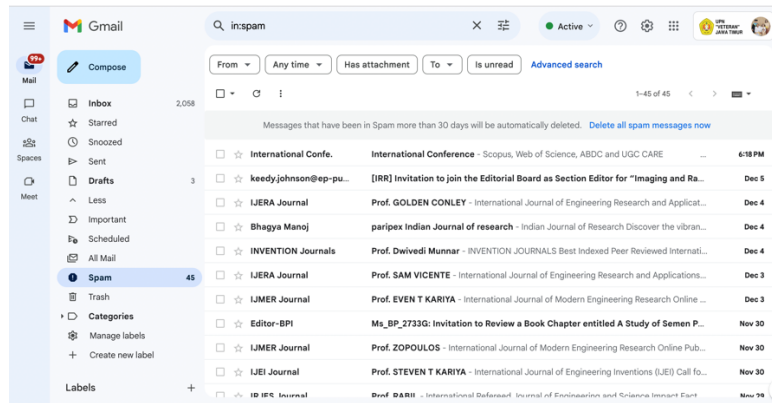*Figure 1 - The initial view of the website in the E-OBE Application*

Figure 2 - Display of Spam Verification in Email

III. RESULTS AND DISCUSSION

The use of Natural Language Processing (NLP) in detecting email spam is one of the methods used to filter incoming emails into a user's inbox. In this research, the implementation of several NLP techniques, such as text classification and natural language processing, is carried out for email spam detection.

Firstly, email data is collected from a web source and then provided in the form of a dataset. This dataset is imported into a programming language along with the necessary libraries for NLP processing. The imported data undergoes simple analysis by examining variables, data size, and data types. Subsequently, the data is cleaned to avoid errors in the NLP process. Exploratory data analysis is also performed to visualize diagrams and heat maps of the data.

The next processing step involves data pre-processing, such as converting text to lowercase, tokenization, removing special characters, eliminating common words (stop word removal), and stemming. The goal of this step is to obtain cleaner and more structured data. Next, feature extraction is performed using the TF-IDF method to transform each email into a feature vector that can be used by the model [3]. After the feature extraction process is completed, the data is divided into training and testing sets.

After successfully completing the previous steps, the next step is to implement the model. In this implementation, several classification algorithms such as Gaussian Naive Bayes, Multinomial Naïve Bayes, Bernoulli Naïve Bayes, Decision Tree, K-Nearest Neighbors (KNeighbors), Support Vector Classifier (SVC), Logistic Regression, and SGD Classifier are used to classify emails into two categories: spam and non-spam, ss seen in Table 1.

The model is evaluated using accuracy and precision metrics to measure its performance. The evaluation results show that the Bernoulli Naive Bayes algorithm has an accuracy of 0.94 and a precision of 0.98, indicating better performance compared to other algorithms. On the other hand, the K-Nearest Neighbors (KNeighbors) model has an accuracy of 0.39 and a precision of 0.33, indicating lower performance. Therefore, this model is not suitable for use as a spam detection model in emails.

In this study, the weaknesses of the email spam detection technique with NLP are also considered. One of the main weaknesses is the limitation in understanding the context of emails and dynamic content. This can lead to errors in email classification, where emails that should be considered as spam may be detected as regular emails, and vice versa

Table 1-Modelling Results

Model	Accuracy	Precision
GaussianNB	*0,90*	*0,83*
MultinomialNB	*0,93*	*0,89*

BernoulliNB	*0,94*	*0,98*
SVC	*0,95*	*0,90*
KNeighbors	*0,39*	*0,33*
Decision Tree	*0,88*	*0,79*
Logistic Regression	*0,93*	*0,88*
SGDClassifier	*0,96*	*0,90*

IV. CONCLUSION

In conclusion, the NLP approach has proven to be one of the effective methods in detecting email spam. In the future technological developments, the NLP approach has the potential for further development to address new challenges and enhance information security in emails. The NLP approach excels in providing more accurate results in email spam detection compared to conventional approaches. However, continuous technological advancements and the development of more complex detection methods are still needed to improve the performance and accuracy of email spam detection models.

Overall, the use of email spam detection techniques with NLP provides an effective solution to the problem of email spam. In future technological developments, the NLP approach has the potential for further development to address new challenges and enhance information security in emails. Additionally, in its evolution, NLP techniques can be expanded by applying deep learning methods such as Convolutional Neural Network (CNN) and Recurrent Neural Network (RNN) to improve accuracy and effectiveness in detecting email spam. For future research development, it is suggested to explore the use of deep learning techniques like Convolutional Neural Network (CNN) or Recurrent Neural Network (RNN) to enhance the performance of spam detection in emails. These methods can learn more complex text representations and capture deeper contexts.

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Implementation of Natural Language Processing for Spam Email Detection in Outcome based Education (OBE) Application
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Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) of Tarakan City for the 2017-2021 Period

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ABSTRACT

Objective: to find out how effective local tax collection is and its contribution to Tarakan City Local Original Revenue (PAD) in the 2017 – 2021 period

Design/methodology/approach: quantitative descriptive method. The data used comes from the Budget Realization Report in the period 2017 – 2021.

Findings: during the 5-year period, the effectiveness of local tax collection fluctuated with the highest effectiveness rate in 2021 at 107.76% and the lowest effectiveness of local tax collection in 2018 at 67.55%. The contribution of local taxes to Local Original Revenue is on a scale of >50%, so it can be said that the contribution of local taxes is very good.

Practical implications: the effectiveness of local tax collection and its contribution to the local original revenue (pad) of Tarakan City for the 2017-2021 period

Originality/value: This paper is original

Paper type: research paper

Keywords: *Effectiveness, Local Tax, Local Original Revenue (PAD), Budget Realization Report (LRA)*

I. INTRODUCTION

Local governments seek to develop and enhance their role in the economic and financial fields. In order to improve the effectiveness of government administration through government bureaucracy, development and services to the community, the implementation of regional autonomy to real and responsible districts / cities is a policy that must be welcomed positively. With the issuance of Law Number 32 of 2004 concerning Regional Government and Law Number 33 of 2004 concerning the Balance of Central and Regional Government, the system and management mechanism of Local Government will undergo fundamental changes. In realizing regional independence in development and taking care of their own households, local governments are given the opportunity to explore financial resources in the regions. The central government gives authority to local governments, which is called decentralization. In line with the decentralization, the financing aspect is also decentralized. The implication is that regions are required to be able to finance all their own needs.

One form of decentralization of government is the implementation of regional autonomy. Regional autonomy is the authority of regions in managing and regulating their own regions in accordance with laws and regulations and in accordance with the aspirations of the community in the NKRI system (Law Number 32 of 2004). The implementation of regional autonomy requires regions to be more independent in funding finances and organizing their governments so that they can carry out development well. In order for the implementation of local government affairs and the improvement of services to the community and regional development to run well, adequate resources are needed. The regional revenue will be used to finance all the needs of local governments in organizing government as stated in the Regional Revenue and Expenditure Budget (APBD).

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) Page | 1172
of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Regional revenue as a source of financing for Local Government consists of Local Original Revenue (PAD), Balancing Fund, Regional Loans and Other Legal Regional Revenues. As a consequence of implementing regional autonomy, each region is forced to strive to increase the sources of Regional Original Revenue (PAD) in order to be able to finance the administration of government and further improve services to the community. As an effort to increase Regional Original Revenue (PAD) revenue in order to realize independent regional government is through intensification and extensification of PAD revenue, because PAD is one of the indicators in measuring the success of the implementation of regional autonomy. The higher the PAD, the higher the ability of local governments to finance their own needs. This means proving that local governments have succeeded in implementing regional autonomy. Conversely, if the PAD obtained by local governments is getting less or has decreased, then the implementation of regional autonomy has not been maximized.

One source of regional revenue consisting of local original revenue is local taxes. Local tax is one of the elements that contribute to PAD. Regional taxes that can be a source of financing for the implementation of government and regional development. The local tax is a potential component to be developed and is a driving factor for the growth of PAD. Taxes have a very important role in state life, especially in the implementation of development because taxes are a source of state revenue to finance all expenses including development expenditures.

Therefore, local tax revenues, local levies and other legitimate revenues must continue to be optimized from year to year in accordance with the targets that have been set. According to Law No. 28 of 2009 concerning Regional Taxes and Regional Tax Levies, regionally managed areas become more namely Hotel Tax, Restaurant Tax, Entertainment Tax, Billboard Tax, Street Lighting Tax, Parking Tax, Non-Metal and Rock Mineral Tax, Groundwater Tax, Swallow's Nest Tax, Rural and Urban Land and Building Tax, Land and Building Rights Acquisition Duty (BPHTB).

Various types of local taxes require local governments to be able to more optimally manage the source of local taxes. To improve the optimization of regional revenues, it is necessary to participate the DPRD as a regional legislative institution to set targets for regional tax and levy revenues. The implementation of performance budgets, performance measurement in regional financial management is important to assess the accountability of local government agencies in order to realize welfare and improved public services. Local tax collection must be considered for its achievement, whether it reaches the target or not, so that in the coming year an assessment or revision can be carried out so that it reaches the target and can make a greater contribution to Regional Original Revenue.

In controlling the regional economy, local government fiscal instruments can provide stimulus which will have an impact on the financial capacity of the region. The financial capability of a region itself can be seen from the size of the PAD obtained from the region concerned. With regard to granting greater regional autonomy to regions, PAD is always seen as one of the indicators or criteria to measure the dependence of a region to the center. In principle, the greater the contribution of PAD to the regional budget, it will show the smaller dependence of the region on the center as a consequence of implementing regional autonomy from the principle of real and responsible.

By calculating the effectiveness and contribution of local tax collection, this can help local governments measure the success of their local tax collection. So the effectiveness in question is how much the realization of regional tax revenues has succeeded in achieving the target that should be achieved in a certain period Given the importance of the role of regional taxes in increasing regional revenue and development, especially in Tarakan City. The author intends to conduct a research entitled "Analysis of the Effectiveness of Regional Tax Collection and Its Contribution to the Local Original Revenue of Tarakan City in 2017 - 2021".

A. Literature Review
1. Regional Revenue and Expenditure Budget (APBD)

Autonomy granted by the central government to local governments to be implemented broadly, tangibly and responsibly based on the principles of transparency (openness) and accountability (responsibility). In the implementation of regional autonomy, it is necessary to understand the terms decentralization and deconcentration. Decentralization according to Suparmoko is defined as a developer of regional autonomy, while deconcentration is as an endorsement of government authority by the central government to autonomous regions that delegate authority from the government to the Governor or Regent of the Regional Head as the representative of the central government or central government apparatus in the regions

Halim (2014) stated that APBD is the annual financial plan of local governments and DPRD. The regional budget reflected in the regional budget is the main policy instrument for local governments, occupying a central portion in efforts to develop the capabilities and effectiveness of local governments. Local budgets should be used as a tool to determine the amount of revenue and expenditure, a decision-making and development planning tool as well as a tool for future expenditure authorities and a standard measure for evaluating performance and a coordination tool for all activities in various work units.

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Page | 1173

The APBD structure as stated in article 22 of the Minister of Home Affairs Regulation Number 13 of 2006, namely paragraph (1) The APBD structure is a unit consisting of Regional Revenue, Regional Expenditure and Financing; paragraph (2) The structure of the regional budget as referred to in paragraph (1) is classified according to local governments and organizations responsible for carrying out government affairs in accordance with laws and regulations.

2. Local Original Revenue (PAD)

The definition of Regional Original Revenue (PAD) according to Law Number 28 of 2009 is the regional financial resources extracted from the area concerned consisting of regional tax proceeds, regional levy results, the results of segregated regional wealth management and other legitimate regional original revenues. Regional Revenue is all regional rights that are recognized as net worth value in a given budget period. Meanwhile, according to Anggoro (2017: 18), it is stated that Regional Original Revenue (PAD) is revenue obtained by local governments for the implementation of government activities and services to the community, as well as the utilization of resources owned by local governments.

The Regional Original Revenue (PAD) can also be interpreted as income extracted from the financial resources of the region itself. This is closely related to the implementation of the task of decentralization. With many regional needs can be financed by local original income, the higher the quality of autonomy. Thus, local original income must be continuously increased, especially regional original income that has good prospects for the future in each autonomous region.

Local sources of revenue are from local original taxes, such as motor vehicle taxes, motor vehicle name return duties, building land taxes, hotel taxes, restaurants, billboard levy fees, and profits from Regional Owned Enterprises (BUMD). The amount of tax received by PAD reflects the volume of economic activity. As long as the economy does not move, as long as it is PAD cannot be developed by local governments. According to Mardiasmo (2004: 146) in Khoirul Ifa (2017) the government is expected to increase PAD to reduce dependence on central financing, thereby increasing regional autonomy and *discretion.* He continued, an important step that must be taken by local governments to increase regional revenues is to calculate the potential of Regional Original Revenue (PAD) that is actually owned by the regions.

The sources of Regional Original Revenue (PAD) according to article 6 (1) of Law Number 33 of 2004 consist of. 1) Local taxes. 2) Regional levies. 3) The results of the wealth of the separated area. 4) Miscellaneous PAD is legitimate.

3. Definition of Tax

In the beginning taxes were not yet a voluntary gift by the people to the king in maintaining the interests of the State, such as maintaining the security of the State against attacks by enemies from outside, making way for the public; funding government officials and-so on. Taxes (Rosdiana &; Tarigan, 2005: 39) in Nooraini and Afif S. Yahya (2018) are one of the sources of state revenue that have an important role in development carried out continuously and continuously. Judging from its function, taxes have a very important role in the implementation of state / government functions, both in the functions of allocation, distribution, stabilization, regulation and a combination of the four.

Tax is an individual or entity, including taxpayers, tax cutters, and tax collectors, who have tax rights and obligations in accordance with the provisions of local tax laws and regulations. In addition, there is a so-called tax period, which is a period of 1 (one) calendar month or other period regulated by Regional Head Regulation of no longer than 3 (three) calendar months, which is the basis for taxpayers to calculate, deposit, and report taxes owed.

4. Local Tax

The central government has given the right to the regions to collect taxes in order to increase local original revenue. According to Government Regulation No.10 of 2021 concerning Regional Taxes and Regional Levies in order to support the ease of doing business and regional services, regional taxes are mandatory contributions to regions owed by individuals or coercive entities based on the law, with no direct compensation and used for regional purposes for the greatest prosperity of the people.

According to Davey (1988) in Nooraini and Afif S. Yahya (2018) development theory *from below* argues that people will be more willing to pay taxes to local governments than to central governments because they can easily see direct benefits in development in their areas. Based on this opinion, it can be seen the importance of local taxes for regional development. In addition, the benefits of local taxes can be directly seen by people in the region. Local government taxes must be politically acceptable. Where taxes in decisions to determine structures, the amount of tariffs, who should pay, sanctions against violators are political agreements between the executive and the legislature as a representation of society.

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) Page | 1174
of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

According to Law No. 28 of 2009 Regional Tax, hereinafter referred to as Tax, is a mandatory contribution to the Region owed by an individual or entity that is coercive based on the Law, with no direct compensation and used for Regional purposes for the greatest prosperity of the people. Local taxes must contain clearly for local taxpayers, the objects and subjects of the tax and the amount of the rate set is easy to calculate so as to encourage regional accountability. Local taxes should be an adequate source of revenue to avoid large vertical fiscal inequalities.

Taxes submitted to the regions should be relatively easy to administer or in other words need economic efficiency considerations related to data needs, such as identification of the number of taxpayers, law enforcement and computerization. Taxes and levies based on the benefit principle can be used adequately at all levels of government, but the transfer of their collection authority to dera will be appropriate as long as the benefits can be localized to local taxpayers.

5. Types of Local Taxes
Types of district or city taxes based on Law No. 28 of 2009 concerning Regional Taxes, namely:
1. Hotel Tax: tax on services provided by the hotel;
2. Restaurant Tax: tax on services provided by restaurants;
3. Entertainment Tax: a tax on the administration of entertainment;
4. Billboard Tax: tax on the implementation of billboards;
5. Street Lighting Tax: tax on the use of electric power, whether self-generated or obtained from other sources;
6. Nonmetallic Minerals and Rocks Tax: tax on the extraction of non-metallic minerals and rocks, both from natural sources within and/or the earth's surface for utilization;
7. Parking Tax: tax on the operation of parking spaces outside the road body, whether provided in connection with the main business or provided as a business including the provision of motor vehicle storage;
8. Groundwater Tax: tax on groundwater extraction and/or utilization;
9. Swallow's Nest Tax: tax on bird's nest picking and/or exploitation activities;
10. Rural and Urban Land and Building Tax: tax on land and/or buildings owned, controlled, and/or utilized by individuals or entities, except areas used for plantation, forestry and mining business activities;
11. Bea Acquisition of Rights to Land and Buildings: tax on the acquisition of ha katas land and/or buildings;

6. Effectiveness and Contribution
According to Djumhana (2007) in Nooraini and Afif S. Yahya (2018) Effectiveness is a state that describes the level of achievement of program results with set targets. Simply put, effectiveness is a comparison between outcomes and outputs. Analysis of the effectiveness of local taxes is an analysis that describes the ability of local governments to realize planned Local Original Revenue (PAD) compared to targets set based on the real potential of the region, according to Halim (2004: 135) in Nooraini and Afif S. Yahya (2018).

Contribution is the amount of contribution given to an activity carried out. According to Handoko (2013) in Nooraini and Afif S. Yahya (2018). Regional Tax Contribution Analysis is an analysis used to determine how much contribution can be contributed from tax revenue to local original income, then compared between the realization of regional tax revenue to local original income.

II. METHODS

Based on the problems in this study, the method used is a descriptive method with a quantitative approach. Descriptive research is carried out with the stages of data collection, classification and analysis or data processing making conclusions and reports with the main aim of making an objective description of a situation in a descriptive manner. This study explains the existing phenomenon by using numbers to standardize the characteristics of individuals or groups.

The descriptive approach according to Paramita, R. W. D., &; Rizal, N (2018: 13) is a study conducted to describe the situation accurately and accurately, not to compare two or more variables to find cause and effect. Quantitative descriptive research is research conducted to provide answers to a problem and obtain broader information about phenomena using quantitative approach stages. The variables in this study are:
1. The level of effectiveness of Regional Taxes on Local Original Revenue.
2. Dearah Tax Contribution to Local Original Revenue (PAD).

This research sample is all financial data related to the target and realization of regional taxes and local original income in Tarakan City from 2017 - 2021 with a saturated sampling method. Secondary data is in the form of tax data and original income from Tarakan City.

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Page | 1175

In tabulating the data, researchers calculated the variables of effectiveness and contribution of local taxes in Tarakan City using the following formula:

1. Local Tax Effectiveness
Effectiveness analysis is the relationship between the realization of regional tax revenue and the target of tax revenue which allows whether the amount of local tax is in accordance with the existing target. The amount of tax effectiveness can be calculated by the following formula:

$$Efektivitas = \frac{Realisasi\ Pajak\ Daerah}{Target\ Pajak\ Pajak\ Daerah} \times 100\%$$

To obtain research conclusions, calculations are determined with the following criteria:

Table 1. Local Tax Effectiveness Criteria

Presentase	Criterion
> 100%	Highly Effective
90% - 100%	Effective
80% - 90%	Enough
60% - 80%	Less Effective
< 60%	Ineffective

Source: Kepmendagri No. 690.900.327

2. Local Tax Contribution
Regional Tax Contribution Analysis is an analysis used to determine how much contribution can be contributed from tax revenue to local original income, then compared between the realization of regional tax revenue to local original income. The amount of tax effectiveness can be calculated by the following formula:

$$Kontribusi = \frac{Realisasi\ Pajak\ Daerah}{Realisasi\ Penerimaan\ Asli\ Daerah} \times 100\%$$

To obtain research conclusions, calculations are determined with the following criteria:

Table 2. Classification Table of Local Tax Contribution Value Criteria

Contribution	Criterion
0% - 10%	Very Lacking
10% - 20%	Less
20% - 30%	Keep
30% - 40%	Good enough
40% -50%	Good
> 50%	Excellent

Source: Kepmendagri No. 690.900.327

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad)
of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Page | 1176

Companies that have competence in the fileds of marketing, manufacturing and innovation can make its as a sourch to achieve competitive advantage (Daengs GS, et al. 2020:1419).

The research design is a plan to determine the resources and data that will be used to be processed in order to answer the research question. (Asep Iwa Soemantri, 2020:5).

Standard of the company demands regarding the results or output produced are intended to develop the company. (Istanti, Enny, 2021:560).

III. RESULTS AND DISCUSSION

The implementation of regional development cannot be separated from the role of local governments which are required to be able to explore the sources of revenue. The source of regional revenue that has been considered sufficient to contribute is regional tax revenue.

A. Analysis of the Effectiveness of Local Tax Collection

To find out how much the level of effectiveness of local taxes in Tarakan City, it can be seen in the table below:

Table 3. Target, Realization and Effectiveness of Tarakan City Regional Tax in 2017 – 2021

Year	Target (Rp.)	Realization (Rp.)	Effectiveness
2017	43.232.000.000	40.609.093.037,59	93.93%
2018	67.295.000.000	45.456.253.569,03	67.55%
2019	54.105.000.000	48.124.781.457,12	88.95%
2020	45.010.524.033,15	44.531.775.486,03	98.94%
2021	54.673.122.000	58.914.840.092,14	107.76%
Average Total			*91%*

Source: LRA Tarakan City Budget 2017-2021

In table 3 of the diata, it can be seen that local tax collection fluctuates from the target, realization to the effectiveness of collection. The highest effectiveness rate occurred in 2021 at 107.76% and the lowest in 2018 at 67.55%.

B. Analysis of Local Tax Collection Contributions

Local tax contributions reflect the share of local taxes to local original revenue. To see the contribution of local tax to local original income in Tarakan City can be seen in table 4.

Table 4. Realization of Regional Taxes, Realization of Local Revenue of Tarakan City and Contributions

Year	Local Tax Realization (Rp.)	Realization of PAD (Rp.)	Contribution
2017	40.609.093.037,59	67.092.417.030,24	60.53%
2018	45.456.253.569,03	72.401.576.596,80	62.78%

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Page | 1177

2019	48.124.781.457,12	73.230.451.032,82	65.72%
2020	44.531.775.486,03	107.850.263.520,68	41.29%
2021	58.914.840.092,14	150.230.724.396,44	39.22%
	Average Total		53.91%

Source: LRA Tarakan City Budget 2017-2021

In the table above, it can be seen that the contribution of local taxes to PAD has fluctuated but is still at a fairly good level. Fluctuations in local tax contributions to PAD, within 5 years the highest contribution in 2018 and the lowest in 2021.

C. Discussion

With the enactment of Law Number 28 of 2009, there is no new type of tax levy that can be collected by the Regions except those listed in the Law. Local Governments do have a tendency to create various levies that are not in accordance with the provisions of laws and regulations and are contrary to the public interest so that the Government overcomes them by evaluating supervision of each Regional Regulation that regulates the Tax.

1. Effectiveness of Local Tax Collection on Local Original Revenue (PAD)

Based on the findings on the results of the calculation of the effectiveness of local taxes, it shows the magnitude of the effectiveness ratio for regional taxes for 5 consecutive years. During these 5 years, local taxes showed that the average category was quite effective except in 2018 which had an effectiveness ratio value with a less effective category and in 2021 which had an effectiveness ratio value with a very effective category. Effectiveness is the utilization of a certain amount of resources, facilities and infrastructure that are consciously set in advance to produce a certain amount of work on time.

Based on the Notes to the 2018 Financial Statements (CALK), there is a statement that in 2015 - 2018 the income of the Regional Original Fluctuating Region has decreased and increased. Therefore, in the coming year, PAD extensification and intensification should be carried out in order to influence the increase in PAD and efforts to increase provincial DBH through increasing regional tax revenues under the authority of the city government so as to encourage an increase in regional revenue revenues and experience significant growth to encourage development. It is stated that the fluctuation in the effectiveness of local tax collection in 2015 – 2019 is the emergence of assumptions of macroeconomic conditions as follows:

1. The higher the inflation rate;
2. There is a decrease in natural resource DBH;
3. DAK and DAU experienced increases of 56.55% and 9.86%.
4. Rupiah exchange rate against US dollar Rp14,380 (as of December 31, 2018)
5. Oil price US$45.77 per barrel (source: WTI US)
6. The average economic growth rate of Tarakan City is 5 - 8% / year.

In regional tax revenue in 2020, there was a decrease in targets and realization even though the level of effectiveness achieved was almost 100% or in the effective category. There were several obstacles and obstacles that occurred where that year Tarakan City became one of the cities affected by changes in regulations related to the implementation of SKPD duties or operations due to the impact of *the Covid-19* pandemic. So that the realization of programs and activities is also influenced by large-scale social distancing policies and changes in work mechanisms such as *Work From Home* (WFH).

In the midst of the *Covid-19 pandemic*, the regional financial capacity of the Tarakan City Government continues to experience a positive increase in terms of revenue realization during FY 2021. The positive increase in terms of Regional Revenue in 2021 is also one of them due to the determination of 3 (three) Regional Public Service Agencies (BLUD) which then shows that their financial management is clearer and more directed so as to boost the Regional Original Revenue (PAD) of the Tarakan City Government.

2. Local Tax Contribution to Local Original Revenue (PAD)

Based on the findings on the results of the calculation of the contribution of local taxes to PAD, in general classified as very good. From 2017-2021, the average reached 53.91%. In table 4, the regional tax that contributed the most for 5 years was in 2019, which was 65.72%. Local tax contributions decreased drastically in 2020. This

Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Page | 1178

potential decline is also caused by declining community and economic activities due to the impact of the Covid-19 pandemic. In 2021, there was a decrease in contribution but the realization of PAD increased from 2020. One of the things carried out by the City Government is the application of excellent service to grow community awareness in supporting the improvement of PAD through public awareness to pay taxes.

In addition, the City Government also improves both upgrades and updates to the Tarakan City Government's revenue, financial and asset management application system or information system or new financial management application if better and optimal. In 2021 also, providing excellent service to the community, the Tarakan City Government has reliable service products, including: Integrated Quick Response Service Call Center 112 This activity is an answer to the complaints of the community so far who have difficulty getting help both firefighters, ambulances and hearses when they need it. Tarakan City Government in collaboration with PT. Telkom has prepared a 112 Call Center that can be contacted by Tarakan residents for free and the services provided are also free. This service will continue to be developed so as to help realize the Tarakan Smart City program.

Time management skills can facilitate the implementation of the work and plans outlined. (Rina Dewi, et al. 2020:14) When collecting data sources, researchers collect data sources in the form of raw data. The survey method is a method of collecting primary data using written questions (Kumala Dewi, Indri et all, 2022: 29).

Data analysis in the study was carried out through descriptive analysis method, which is defined as an attempt to collect and compile data, then an analysis of the data is carried out, while the data collected is in the form of words. (Kasih Prihantoro, Budi Pramono et al, 2021 : 198).

IV. CONCLUSION

Conclusion

Based on the results of the research conducted, conclusions can be made, namely:
1. The effectiveness of Tarakan City's local tax collection is included in the category of less effectiveness with a scale of 67.55% to very effective with a scale of 107.76%
2. In the local tax contribution, Tarakan City is included in the very good category because the average contribution is 53.91%.

Suggestion

Based on the results of the conclusions above, the researcher can provide suggestions as follows:
1. It is necessary to actively provide counseling on the importance of paying local taxes and simplifying the process of paying local taxes to make it easier for taxpayers, so as to improve compliance with paying taxes.
2. The amount of revenue for each type of local tax needs to be increased and optimized again so that it can make a large contribution and effectiveness to Regional Original Revenue.

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Sasando Dewi Soeksin

Page | 1179

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Analysis of the Effectiveness of Regional Tax Collection and its Contribution to the Local Original Revenue (Pad) Page | 1180
of Tarakan City for the 2017-2021 Period
Sasando Dewi Soeksin

Demographic Factors, Financial Self-Efficacy, and Financial Independence of Young Adults in Surabaya

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ABSTRACT

Purpose: One of the key characteristics that can indicate a person's maturity is financial independence. Unfortunately, not many young adults in Indonesia are successful to become financially independent. Thus, the purpose of this study is to examine the variables that may have an impact on young adults' financial independence.

Design/methodology/approach: 118 Surabaya-based young adults served as the study's respondents. Distribution of questionnaires was used to collect data, which was then processed using logistic regression. Findings: The findings of this study demonstrate that age, education, marital status, and self-efficacy all have an impact on young adults' financial independence. It is expected that the findings of this study will help those involved in the attempt to increase financial independence among Indonesian young adults. Furthermore, it is expected that this research will contribute to ongoing studies on financial independence.

Paper type: Research Paper

Keyword: *Financial Independence, Demographic Factors, Financial Self-Efficacy, Young Adult*

I. INTRODUCTION

People naturally go through five stages throughout their lives, commencing with birth, followed by childhood, adolescence, adulthood, and finally old age. All of a person's financial needs will still be met by parents from the time of birth until puberty. However, a person must be capable of providing for his own requirements while beginning to approach young adulthood (Hill et al., 2017; Ricci, 2018; Cui et al., 2019).

A person is believed to reach the young adult phase between the ages of 20 and 40, according to Hurlock, who was referenced by Yulfa and Herawati (2017). A person must be more responsible and independent throughout this period, as well as be able to take care of the majority of his own demands, particularly those related to money (Settersten et al., 2015). Financial independence is one of the primary requirements for adulthood, according to Arnett (2000), who was cited in Kim and Torquati (2016) and Cepa and Furstenberg (2020).

Young adults reach financial independence when they are able to support themselves through work and income alone, without the help of others (Xiao et al., 2014; Butterbaugh et al., 2019). A person is said to be entirely financially independent when the earnings from his work may be used to support him throughout his whole life. The necessities of daily life go beyond basic needs like food and clothing and also involve things like shelter, entertainment, and other wants without the need for external financial assistance (Vosylis and Klimstra, 2020).

The ability to be autonomous is typically discovered when a person enters young adulthood (Hasanah, 2017). This is due to the fact that a person's perspective toward independence is still unformed at this age. When one adopts this perspective, they can start to adjust and find ways to become independent, one of which is characterized by financial independence.

Unfortunately, a large number of young adults in Indonesia still lack financial independence. According to Dini (2012), more over half of Indonesia's young adults still depend on their parents for financial support. Even though he is already employed, his family is able to provide the necessary financial support to pay his bills and

meet his living expenses. The primary reason parents continue to support their young adult children financially once they have entered this period of life is the rising expense of living, even when the child gets married and starts a family of his own. Moreover, it takes longer to become financially independent due to the high standard of living, particularly in urban regions.

The pandemic's impacts have also made Indonesia's young people' financial situation worse. The Central Statistics Agency's data also reveals that Indonesia's young adult unemployment rate in 2020 rose to the highest level in ASEAN. The "Financial Fitness Index 2021" study was carried out in 2021 in Jabodetabek, Surabaya, and Medan by Bank OCBC NISP and Nielsen IQ. The survey's findings revealed that only 37.72 percent of the 1027 participants were financially stable. Despite having a sizable income, nearly 30% of respondents say they have frequently had to incur debt because their fundamental necessities have not been met. In fact, 55% of respondents say their expenses are more than their income.

Young adults will suffer unfavorable consequences if financial independence is not attained, both for themselves and for those around them (Taroza, 2020). Bea and Yi (2018) suggested that parents' continued interference in providing for their kids' financial needs may be motivated by attachment. However, both parents and their children may experience financial insecurity as a result of these circumstances in the future. The future of the parents themselves may be affected if they continue to worry about their children's financial issues. Because their income is spent on providing for their children, parents do not have the chance to save for their later years.

According to study findings by Junaidy and Surjaningrum (2014), working and taking care of one's financial needs are crucial for those who are just entering adulthood. A person's quality of life is greater and happier if they can support themselves financially through work. Contrarily, a person who is unemployed and unable to cover his expenses may face a number of negative consequences on both a psychological and social level, along with financial ones.

Every parent therefore hopes and wishes for their children to be financially independent (Xiao et al., 2014; LeBaron et al., 2018; Cui et al., 2019). This is also consistent with the findings of Kim et al.'s (2011) study, which suggests that as a child transitions into young adulthood, he or she should work to fulfill all of his or her requirements and financial obligations autonomously.

Financial independence is influenced by demographic characteristics and young adults' financial self-efficacy, according to Xiao et al.'s (2014) research. Gender, age, education, income, and marital status are all demographic variables that can impact financial independence (Mahdzan and Tabiani, 2013).

A person will start to develop a sense of responsibility for the attitudes and wants they have when they enter the young adult period, particularly those linked to money, according to research by Settersten et al. (2015) and Butterbaugh et al. (2019). Men are especially impacted by this. In the future, men will serve as the family's head and foundation. Men are encouraged to become financially independent more quickly than women in this profession.

Age, gender, and income are additional factors that influence a young adults' financial independence. According to Borjas et al. (2020), a person's education can determine whether or not they become financially independent sooner. A person is more likely to have a higher salary the more academic achievement he receives. A person will find it easier to meet his or her own financial needs and acquire financial independence if they have an adequate income.

Marital status has an impact on a young adults' ability to make financial decisions. The pressure for young families to become financially independent increases because having a child will raise the family's financial burden (Addo et al., 2018).

Financial self-efficacy is another factor that has an impact on young adults' financial independence. According to Lee and Mortimer (2009), financial self-efficacy is the confidence a person has in his or her capacity to attain their financial objectives. A young adult who is confident that he will succeed in reaching his financial objectives will carefully study and work to get ready early. Young adults will have a greater chance of achieving financial independence if they are enthusiastic and well-prepared (Ranta et al., 2019).

In order to gain an initial picture of young adults' financial independence, a pre-survey of 30 adults was undertaken in Surabaya. Results from the pre-survey revealed that 19% of young adults lacked financial independence. This group still relies on their parents or other close relatives for financial support to cover everyday expenses.

The objective of this study is to examine how young adults' financial independence is impacted by demographic parameters such as age, gender, education level, income, and marital status as well as financial self-efficacy. Due to the fact that Indonesia, a developing nation, served as the research site, it is interesting. The findings of this research are expected to help key stakeholders in developing a number of strategies that can boost young adults' financial independence in Indonesia.

Demographic Factors, Financial Self-Efficacy, and Financial Independence of Young Adults in Surabaya
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A. Theoretical Review
1. Financial Independence

According to KBBI, independence is the capacity to act independently without relying on others, whereas finance is anything related to money. Thus, being financially independent can be defined as the state of being able to meet all of one's own financial requirements without the assistance of others. A person can be considered financially independent if they can live alone in a residential environment, enlist in the military, or leave home to be married, according to one of the initial research studies on the topic. According to Whittington and Peters (1996) in Xiao et al. (2014), a person who earns a living but continues to reside with his parents cannot be regarded as being financially independent. However, it has been argued in more recent studies that a person's financial independence can be determined by the percentage of living costs coming from his or her own income or savings or from a spouse's income and/or savings (Lee and Mortimer, 2009 in Xiao et al., 2014).

Financial independence among young adults, according to Xiao et al. (2014), can be seen as a stage where they are able to meet their basic needs on their own money. The ability to live independently, pay for his own residence, manage his debt independently, and maintain solid financial management independently were the four factors used in the study to measure financial independence. The investigations by Taroza (2020) and Bea and Yi (2017) both used this measurement.

For young adults, financial independence is regarded as a crucial component. Young adults' financial security is crucial for their own well-being, the wellbeing of their families, and the growth of the economy as a whole. Young adults can positively influence both themselves and the environment when they are financially independent. A person who is financially independent no longer bothers their parents because they are now responsible for their own daily requirements and necessities. As a result, parents are free to focus on retirement planning without having to worry about their kids' welfare (LeBaron et al., 2018; Allsop et al., 2020).

2. Demographic Factors

According to Xiao et al. (2014), the transition to financial independence is influenced by demographic characteristics amongst young adults, such as gender, income, and educational attainment. Because a number of elements in demographics can also have an impact on a person's psychological state, they play a significant part in determining a person's level of financial independence. Additionally, it is impossible to separate a person's demographic features from their financial responsibility.

a. Age

In a person's life, there are five stages of development: birth, childhood, adolescence, adulthood, and old age. Young adulthood, middle adulthood, and late adulthood are the three stages of adulthood, according to Hurlock (1990), who cited Putri (2019). Young adults are those who are between the ages of 20 and 40.

Young adulthood is a stage characterized by a sense of responsibility for the activities made, according to Putri (2019). A person will need to start letting go of his or her social, psychological, and financial dependence on other people when they enter young adulthood, especially parents. It is required of an adult to start taking responsibility for his actions and start assuming a role in society.

The research of Lee and Mortimer (2009), quoted by Xiao et al. (2014), explained that a person's level of financial independence increases with age. It is determined by a person's level of psychological development, which includes their financial maturity. According to Handi and Mahastanti's (2012) research, when a person becomes older, meeting necessities takes precedence over satisfying wants when it comes to spending money. A person can finance his requirements and reach financial independence with the appropriate priorities.

According to Nguyen, Trinh, and Tran's research (2021), a person's level of financial independence rises with age. This is true since being older is associated with better financial management, higher income and status, and less of a desire to buy things that are not necessities.

H1: Age has a significant positive effect on financial independence.

b. Gender

The biological distinction between men and women is based on gender. Women grow and develop with a guiding, empathic, compassionate, helpful, and gentle attitude, while men do so with a firm, straightforward, tough, and unemotional independence. According to Woodyard and Robb (2012), men and women in various age groups have varied levels of financial literacy. The finding that men have higher levels of financial responsibility and awareness than women is supported by research by Lalonde and Schmidt (2010) and Taroza (2020).

According to Ariadi (2015), gender differences have an impact on a person's ability to manage their finances. This is so because women choose to exclusively address the most significant demands, but males pick which requirements can be used as a yardstick for success. As a result, men put in more effort than women to meet their obligations.

Men will become financially independent more quickly than women, according to research by Alsemgeest and Grobbelaar (2015), Bea and Yi (2017), Nguyen, Trinh, and Tran (2021), Bea and Yi, and others. This is influenced by men's psychological state because they will subsequently choose their own life route independently of others. According to the research by Falahati and Piim (2011), women only view money as a personal strength, whereas males view it as a strength and responsibility for life. For men, this means that the more wealth they own, the more power and responsibility they have.

H2: Gender has a significant positive effect on financial independence.

c. Education

Education is a person's action and effort in nurturing and releasing his personal potentials, according to Naziev (2017). Each person will subsequently have a mindset, behavior, and attitude that are consistent with the education he got as a result of the knowledge they have formalized.

According to research by Taroza (2020) and Lee and Mortimer (2009), gaining financial independence will take a little longer for someone with a higher level of education. However, the education received can be employed as capital to accelerate income, making it simpler for the individual to reach financial independence after his or her studies are complete. It is guaranteed that a person is knowledgeable and an expert in their industry by looking at their educational credentials. According to Lee and Mortimer (2009), someone who has not worked but is still in school does not necessarily have a delayed path to financial independence. The need of being financially independent from a young age is something that education can help a person understand (Amato and Kane, 2011). Education can also affect one's financial literacy and perception.

H3: Education has a significant positive effect on financial independence.

d. Income

Personal income is defined as a person's annual total gross income from wages, businesses, and other investments (Hilgert et al., 2003). Personal income is used to determine an individual's adjusted gross profit for tax purposes, and is frequently referred to as a person's "pretax profit". Wages and salaries make up the majority of overall revenue, but there are many other types of income as well, including rental income, gifts, government subsidies, interest income, and dividend income.

According to Hilgert et al.'s research, a person has a larger financial responsibility when their income is higher than when it is lower. According to Mahdzan and Tabiani (2013), the more a person's income, the more they will endeavor to be responsible in satisfying necessities and making better use of their money. This research supports their claim.

According to Bea and Yi's research from 2017, a person's salary has an impact on how much of his or her duties and expenses are on him or her. Of course, the more money someone makes, the simpler it is for them to become financially independent. On the other hand, if a person's salary is typically low, it will be challenging for them to become financially independent.

H4: Income has a significant positive effect on financial independence.

e. Marital Status

A married people has more obligations than a single person. After being married, a person is responsible for providing for their family as well as themselves. The weight of a person's personal life is their own financial duty for an unmarried person, on the other hand, as stated by Settersten et al. (2015).

How to become financially independent was discussed in the research by Xiao et al. (2014). The marriage is a factor. When a person gets married, it signals the start of his independent life with his new family. The newly formed family will need to be independent, which in this context means having financial independence. When a young adult has established themselves as the family's breadwinner, they are not only responsible for supporting themselves but also their spouse, children, and other dependents. As opposed to someone who is not married, prefers to rely on his parents for support, and has more than one source of income, this individual nevertheless receives financial assistance from his family (Praba and Malarmathi, 2015).

H5: Marital status has a significant positive effect on financial independence.

f. Financial Self Efficacy

According to Farrell et al. (2016), self-efficacy is the conviction that one can plan and carry out actions to accomplish specific goals, such as emotions, methods of thinking, and motives. It also aims to evaluate the level and strength across various settings and activities. Self-efficacy, according to Tsang et al. (2012), is a person's assessment of his competence or capacity to carry out a task, achieve goals, and overcome obstacles. According to these two definitions, self-efficacy is the confidence a person has in his or her capacity to accomplish a certain goal.

Financial self-efficacy is the name for the self-efficacy idea that has to do with money. The ability to attain one's financial goals is referred to as financial self-efficacy (Lown, 2011). The following are the indicators of financial self-efficacy found in Lown's (2011) research:
1. Have confidence in the spending plan that has been made
2. Have confidence to achieve financial goals that have been made
3. Have the confidence to solve financial problems when unexpected expenses occur
4. Have confidence to anticipate when faced with financial problems
5. Have confidence in yourself when managing finances
6. Have confidence that you won't run out of money in retirement

According to Xiao et al. (2014), developing actions that are relevant to young adults' economic goals depends on perceptions of one's own financial self-efficacy. Someone who is positive that he can become financially independent from a young age will undoubtedly make an extra effort to work harder and longer hours in order to achieve financial independence right away. The spirit necessary to make it happen will be produced by the confidence held.

When conducting research Financial self-efficacy is critical for persuading someone to act in a way that makes them believe things will go as planned, according to Lee and Mortimer (2009). The study also outlined how self-assurance and financial independence relate to one another. The responders' self-assurance Respondents were quickly forced to switch from someone who is financially reliant to someone who is financially independent (Lee and Mortimer, 2009).

H6: Young adults' financial self-efficacy has a significant positive effect on financial independence.

II. METHODS

The objective of this associative study is to determine how demographic variables and financial self-efficacy affect young adults' ability to manage their finances independently in Surabaya. The information used is primary data, which was gathered by sending a closed questionnaire using a Google Form link to young individuals in Surabaya City who met the requirements for the sample, as assessed by the researcher.

A. Population and Sample
The demographic group of choice for this study was young adults. A young adult is a person between the ages of 20 and 40 (Putri, 2019). The young adult population was chosen for this study because, at this time, it is increasingly responsible for its own behaviors, especially those related to the economy, freedom of self-determination, and outlook on the future.

A person is expected to take independent financial action once they have passed the transitional stage and have attained adulthood because it is difficult for someone to always rely on his parents for all of his financial needs. There is no doubt that the influence is felt on the person's quality of life. If you don't focus about becoming financially independent right away, it will be tough to improve later in life (Navickas et al., 2014).

Purposive sampling is the technique utilized in this study to choose the study's sample. The study's consideration criteria were as follows:
1. Domiciled in Surabaya
2. Have a Surabaya KTP
3. 20 years old – 40 years old

Surabaya is the second most populous city in Indonesia. Based on data taken from BPS Surabaya city, in 2020, the population of Surabaya was 2,904,751 people. Of these, 36% are young adults. Based on Slovin's formula, the number of samples assigned to this study was 100 people.

B. Variable Definition
The independent variable in this study is financial independence, and the dependent variables are demographic factors and financial self-efficacy.

In this study, financial independence is defined as the age at which Surabaya's young adults are capable of supporting themselves financially without assistance from anyone. Four factors—namely, the following—are used to measure a young adults' financial independence, according to Xiao et al. (2014):
1. Financing living needs independently
2. Independent housing financing
3. Debt financing independently

4.   Good financial management independently.

Age, gender, education, income, and marital status were among the demographic characteristics considered in this study. Respondents will be divided into four main age groups according to their actual age: those between the ages of 20 and 25; 26 and 30; 31 and 35; and 36 and 40. Respondents will be divided into male and female respondents based on gender. There are three groups of respondents based on their educational background: those with a high school diploma or equivalent, those with a diploma or a bachelor's degree, and those with a postgraduate degree. Respondents can be divided into three categories based on their marital status: single, married but without children, and married but with children already.

The term "income" as used in this study refers to the total gross monthly income of young adults in Surabaya, which includes earnings from jobs, businesses, and other investments. The respondents in this study were divided into six income groups, including those making less than Rp. 4,200,000, between IDR 4,201,000 and IDR 10,000,000, between IDR 10,000,001 and IDR 20,000,000, between IDR 20,000,001 and IDR 30,000,000, between IDR 30,000,001 and IDR 42,000,000, and above IDR 42,000,000.

In this study, financial self-efficacy was defined as the confidence of young adults in Surabaya in their own capacity to meet their financial objectives. The Financial Self-Efficacy Scale (FSES), which Lown (2011) suggests can be used to evaluate financial self-efficacy, includes*:*
1.   Unexpected expenses
2.   Financial goals
3.   Credit
4.   Solutions to financial problems
5.   Personal financial management
6.   Pension funds

C. Data Analysis Techniques

With the use of SPSS software, a binary logistic regression hypothesis test was performed as the analysis approach in this study. The dependent variable is dichotomous, hence binary logistic regression technique is used. The models used are:

$$KF = \alpha + \beta_1 U + \beta_2 JK + \beta_3 P + \beta_4 I + \beta_5 SP + \beta_6 FSE + e$$

KF = Financial Independence
α = Constant
β = Coefficient
U   = Age
JK = Gender
P   = Education
I   = Income
SP = Marital Status
FSE= Financial Self-efficacy
e   = *Error*

III. RESULTS AND DISCUSSION

A. Overview of respondents

The respondents to this study are Surabaya-based young adults between the ages of 20 and 40. The data collected was 156 respondents. Then, 118 respondents who met the sample requirements were chosen after the researchers filtered the respondents based on the sample criteria. The characteristics of the responders are described in the paragraphs that follow.

Demographic Factors, Financial Self-Efficacy, and Financial Independence of Young Adults in Surabaya
Calvin Julianto, Evelyn*

Table 1. Descriptive Statistics of Respondents

Demographic Factors		Financial Independence		Total
		Not Financially Independent	Financially Independent	
Age	20 Years - 25 Years	24	7	31 (26%)
	26 Years - 30 Years	23	24	47 (40%)
	31 Years - 35 Years	0	29	30 (25%)
	36 Years - 40 Years	2	9	10 (9%)
Gender	Woman	19	29	48 (41%)
	Man	30	40	70 (59%)
Education	High School ≤	18	6	24 (20%)
	Diploma and Bachelor	31	58	89 (76%)
	Graduate	0	5	5 (4%)
Income	<=IDR 4.200.000	20	10	30 (25%)
	IDR 4,201,000-IDR 10,000,000	21	33	54 (46%)
	IDR 10,000,001-IDR 20,000,000	4	10	14 (12%)
	IDR 20,000,001-IDR 30,000,000	2	9	11 (9%)
	IDR 30,000,001-IDR 42,000,000	1	2	3 (3%)
	>IDR 42,000,000	1	5	6 (5%)
Marital Status	Unmarried	48	38	86 (73%)
	Married Don't Have Children	1	11	12 (10%)
	Married and Have Children	0	20	20 (17%)

Source: Results of data analysis, processed, 2023

Demographic Factors, Financial Self-Efficacy, and Financial Independence of Young Adults in Surabaya
Calvin Julianto, Evelyn*

According to table 1, respondents in this study were predominately male, between the ages of 26 and 30, with a diploma or bachelor's degree, a monthly income between Rp. 4.201.000 and Rp. 10.000.000, and no marital status.

Young adults between the ages of 20 and 25 have a low level of financial independence, according to the findings of cross-tabulations of their financial independence by age in table 1. Age will increase financial independence. The cross-tabulation of young adults' financial independence by gender revealed that there were not many differences in the degree of financial independence between men and women. Up to 60% of all the female respondents and 57% of all the men have achieved financial independence.

The results of the financial independence and education cross-tabulation indicate that respondents with postgraduate degrees had been entirely financially independent. This demonstrates that a person's financial independence increases with increased education.

The largest proportion of financial independence is found in incomes larger than Rp. 42,000,000 per month, according to the results of a cross-tabulation of young adults' financial independence based on income. Additionally, the data indicates that as income increases, so does the percentage of people who are financially independent.

When financial independence and marital status are cross-tabulated, it is revealed that single people are more likely to be non-financially independent. While the proportion of married people who are financially independent is rising for both those without children and those who already have children.

Table 2. Financial Self-Efficacy of Respondents

FSE	Score					Average	Category
	1	2	3	4	5		
It's easy for me to stick to my spending plan despite sudden needs	3	17	43	33	22	3,46	Tall
	2,54%	14,41%	36,44%	27,97%	18,64%		
It was easy for me to make progress on my financial goals	2	19	32	44	21	3,53	Tall
	1,69%	16,10%	27,12%	37,29%	17,80%		
When unexpected expenses occur, I will not use debt to solve problems.	5	21	38	21	33	3,47	Tall
	4,24%	17,80%	32,20%	17,80%	27,97%		
I have no trouble finding solutions when faced with financial problems	2	25	38	31	22	3,39	Tall
	1,69%	21,19%	32,20%	26,27%	18,64%		
I am confident in my ability to manage my own finances	3	12	30	40	33	3,75	Tall
	2,54%	10,17%	25,42%	33,90%	27,97%		
I am not afraid that I will run out of money in my retirement.	3	28	44	27	16	3,21	Tall
	2,54%	23,73%	37,29%	22,88%	13,56%		

	Average					3,47	Tall

Source: Results of data analysis, processed, 2023

The Likert scale is used to gauge one's financial self-efficacy. When people give a statement a score of 1, they strongly disagree with it. This means that if the respondent selects 1, his financial self-efficacy is low. When a statement in the questionnaire receives a score of 5, it means that the respondent's financial self-efficacy is high and the statement closely matches their condition.

A class interval division formula is utilized to get the mean category of the financial self efficacy variable's Likert scale values. Respondents with a mean score between 1 and 3 will be categorized as having low financial self-efficacy, while those with a mean score between 3 and 5 will be categorized as having high financial self-efficacy.

Table 2's responses from respondents reveal that young adults in Surabaya City have a high level of financial self-efficacy, as indicated by the mean score of 3.47. This demonstrates that young individuals in Surabaya already have solid ideas and beliefs about managing money and providing for diverse requirements or an emergency fund when necessary. Additionally, Surabaya City's youth are prepared for old age without worrying about financial constraints.

Table 3. Financial Independence of Respondents

Financial Independence	Score					Average	Category
	1	2	3	4	5		
How much do you contribute to financing your needs with your own income?	5	21	25	22	44	3,67	Tall
	4,24%	17,80%	22,03%	18,63%	37,29%		
How much do you contribute to financing your residence with your own income?	42	24	21	10	21	2,53	Low
	35,59%	20,34%	17,80%	8,47%	17,80%		
How much do you contribute to paying debts or bills with your own income?	9	18	32	13	46	3,58	Tall
	7,63%	15,25%	27,12%	11,02%	38,98%		
How much can you manage your own finances?	2	12	35	23	46	3,84	Tall
	1,69%	10,17%	29,66%	19,49%	38,98%		
Average						3,40	Tall

Source: Results of data analysis, processed, 2023

The Likert scale is used to measure a variable that represents respondents' financial independence. A score of 1 represents people who are neither independent nor wholly dependent on others financially (the range of this reliance is 80%–100%). A score of 5 reflects respondents who are completely financially independent (the percentage of respondents who rely on others for financial support is 0%–20%).

Using the class interval division formula created by Simamora (2000), the mean category of the financial independence variable's Likert scale results is calculated. Respondents classed as not yet financially independent

have a mean value between 1 and 3 whereas those classified as financially independent already have a mean value between 3 and 5.

According to table 3, the majority of respondents already have financial independence thanks to their ability to pay for their basic necessities, pay off debt or obligations, and manage their money. However, the majority of respondents are still unable to independently finance housing.

The average response from respondents is 3.40, indicating that the respondent's level of financial independence falls inside the high score category. With the exception of housing financing, a high score suggests that young adults in Surabaya City already enjoy financial independence.

B. Data Analysis

Before doing a logistic regression test, validity and reliability tests are conducted to make sure the research instrument is appropriate.

The validity test for this study has been carried out using Pearson's correlation. In this study, the validity test result for each variable was 0.000. This indicates that each variable has successfully met the requirements for validity testing and can proceed to the following test after being approved for use as a research measuring tool.

The Cronbach Alpha (α) statistical test was employed in this study to assess dependability. The financial self-efficacy variable had a Cronbach Alpha value of 0.843 and the financial independence variable had a value of 0.815, according the test results. When Cronbach's Alpha exceeds the minimum level (> 0.7), the research may proceed to the next stage.

Table 4. Test the hypothesis

		Type	
		β	Sig
	Age	0,905	0.022[**]
	Gender	0,229	0,684
Demographic Factors	Education	0,845	0.011[**]
	Income	-0,120	0,653
	Marital Status	2,356	0.017[**]
Financial Self-Efficacy		1,839	0.002
Constant		-7,523	0.000
Nagelkerke's R Square		0,599	
Hosmer and Lemeshow Test		0,300	
Classification Matrix Test		83,1%	

Remarks: [*]p<.05. [**]p <.025. p <.005.
Source: Results of data analysis, processed, 2023

Table 4's research findings demonstrate that age significantly increases financial independence. These findings are consistent with Lee and Mortimer's (2009) study, which found that a young adult's likelihood of becoming financially independent increases with age. According to the data collected from respondents, with increasing age, their level of financial independence also rises.

The findings of the study indicate that gender influences financial independence positively but not significantly. This is contrary to Bea and Yi's (2017) research, which found that males will, on average, achieve financial independence sooner than women. According to evidence gathered by researchers, disparities between genders do not indicate a person's level of financial independence. This is due to the fact that a substantial percentage of respondents—both men and women—are financially independent.

Financial independence is significantly influenced positively by education. This is consistent with Lee and Mortimer's (2009) study, which found that obtaining a higher education increases a person's likelihood of becoming financially independent. This is also shown in the survey results, which indicate that a person's percentage of financial independence increases with their level of education.

The findings of the study indicate that income has a unsignificant negative impact on financial independence. According to research by Bea and Yi (2017), the higher a person's income, the more independent they are in managing their financial responsibilities. This contradicts the findings of their study. According to the responses from the respondents, a person's lifestyle as well as life's expenses are factors to consider. According to studies, a person's income should be matched with good financial behavior so that it does not have a negative financial impact (Hilgert et al., 2003). A person will find it harder and harder to become financially independent if they behave irresponsibly with their finance.

Financial independence is significantly influenced positively by marital status. This is consistent with study findings by Xiao et al. (2014) that marriage symbolizes the beginning of an individual's independent life with their new family. According to research findings, a person's financial independence increases from being single to being married without children to being married with children.

Financial independence is significantly positively impacted by financial self-efficacy. These findings are consistent with a study conducted by Xiao et al. (2014), which found that young adults' financial self-efficacy plays a significant role in encouraging behavior that is related in achieving their financial objectives. According to this study, a person who has a high level of financial self-efficacy will have a greater opportunity of being financially independent.

C. Discussion

Age, education, marital status, and financial self-efficacy all have an impact on young individuals' financial independence in Surabaya. Based on the findings in table 1, it is clear that a person's percentage of financial independence increases with age and with the level of education attained. Table 1 also shows that young adults who are married are more likely to be financially independent than those who are single. Additionally, young adults with children are more financially independent than young adults without children. The research findings for the financial self-efficacy variable have a significant impact on a person's financial independence, similar to age, education, and marital status. According to the test's findings, a person's level of financial independence increases with their level of financial self-efficacy.

The amount of financial independence of respondents is unaffected by gender or income, according to the data processing results of the respondents' responses. Financial independence tends to be high for both men and women. This study found that a person's degree of financial independence is unaffected by their income. One of the explanations is that each person has a different lifestyle or set of responsibilities. For instance, certain participants earn more money than those who are married, despite not being married. It will be easier for someone to use money for numerous unnecessary wants if you don't have a family. When a person is married, things change. When you have a family, both your spouse and kids also share financial responsibilities with you.

In addition to the abovementioned factors, social culture also affects a person's financial independence. According to study by Taylor and Walker (2013), young individuals in their early stages are urged to work part-time jobs in the US in order to generate revenue and become financially independent as soon as possible. What's happening in Indonesia is at contradiction with this. A person entering young adulthood still depends heavily on his parents because, on average, this stage of life is spent in education and does not allow for the option of job (Indonesia Millennial Report, 2020). According to Siwi's 2009 research, which is consistent with the results of the Indonesia Millennial Report, Most Indonesian parents, especially those in East Java, prefer that their children finish their university studies before beginning employment. Children's financial independence is therefore delayed because they do not yet earn a living in their early adolescent years.

Demographic Factors, Financial Self-Efficacy, and Financial Independence of Young Adults in Surabaya
Calvin Julianto, Evelyn*

V. CONCLUSION

A. Conclusion

Age, education, marital status, and financial self-efficacy are demographic factors that have an impact on the ability of young adults to manage their finances in Surabaya City. Regardless of their gender or wealth, young adults in Surabaya are seen as being financially independent.

It is expected that this research will be beneficial to the numerous stakeholders involved. This study is expected to help young adults better understand the value of achieving financial independence and the necessity of having financial self-efficacy in order to do so. Young adults are therefore expected to continue managing their money wisely so they can achieve financial independence without offending those around them, especially their parents and other relatives.

B. Suggestion

This study is anticipated to give parents of young adults more knowledge about how to guide and educate their children as they make the transition to financial independence. Therefore, it is hoped that this study's findings would alert parents to the importance of teaching their children how to be independent, especially financially, and help further reduce their reliance on their own parents. Parents can offer a variety of suggestions, counsel, and life experiences in the commercial and professional worlds to help children gain the understanding they need to continue managing and managing their finances effectively.

Because the information the researchers gathered in this study came through questionnaires, respondents were less receptive to the facts that already existed on financial independence. In order to include more specific and deeper phenomena and enable respondents to be more receptive to the truth about their financial independence, it has been proposed that future research would collect data through in-depth interviews. Researchers might also expand on this research by include additional relevant variables, such as children characteristics, parental roles, and an individual's socioeconomic security, particularly for young adults.

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Solar Power Water Pump Technology Ellak Daya Village Farmers, Modern Business, Economic and Rural Agricultural Irrigation Supported by Smart Hybrid Inverter System in Ellak Daya Village, Sumenep, Indonesia

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ABSTRACT

Purpose: Ellak Daya Village, situated in the Lenteng sub-district of Sumenep Regency, primarily features dry land, constituting 63.3% of its total area. The main crops cultivated on this arid land include corn, beans, soybeans, rice, and herbal chilies. However, the productivity of these fields significantly decreases during the dry season, posing a challenge to the village's economic well-being. This circumstance has labeled Ellak Village as having the potential for extreme poverty, as identified through a problem analysis. Issues primarily revolve around management, encompassing the organization of planting patterns and irrigation schedules. In the processing sector, challenges include the absence of cost-effective irrigation facilities and effective irrigation methods. The objective of the training and mentoring initiatives is to equip farmer groups with the skills needed to regulate planting patterns, manage irrigation schedules, and integrate technology, such as solar cell pumps utilizing natural energy sources.

Design/methodology/approach: The activities, encompassing FGD, socialization, training, and mentoring, are scheduled to take place between September 26 and November 20, 2023, at both the village hall and the residences of farmer groups. Challenges in this initiative include the advanced age (50 years and above) and lower educational levels of the participants.

Findings: The program's success will be evaluated through Pre-Test and Post-Test assessments, with the goal of ensuring that 100% of participants are knowledgeable about planting procedures, and 40% comprehend the intricacies of setting planting patterns. It is noteworthy that attendance at training and mentoring activities averages above 65% of the total member count.

Paper type: Research Paper

Keywords: Ellak Daya Village, Farmer, Village Economic, Drainage Systems, Solar Cell

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I. INTRODUCTION

Ellak Daya Village, situated in the Lenteng sub-district of Sumenep City, is characterized by its location in a highland area and is primarily engaged in agricultural activities. The village's agricultural land spans 67 hectares of rice fields, 399.09 hectares of moorland, dry land, and huma, constituting approximately 63.3% of the total agricultural land. Additionally, there are 5 community forests covering 00 hectares, while the remaining 49.50 hectares are designated for residential use. The predominant economic activity in Ellak Daya is agriculture, with most residents working as farmers. While the village holds substantial potential in agriculture, activities are predominantly confined to the rainy season, limiting the cultivation of crops such as rice, soybeans, and corn. In the dry season, the lack of a reliable water source poses a challenge, with existing water pumps having limited

capacity and high operational costs, particularly burdensome for small-scale farmers. This limitation results in reduced productivity during the dry season, contributing to the village's potential classification as experiencing extreme poverty. Management of planting patterns becomes crucial for determining water requirements in dry lands, and irrigation scheduling is essential for ensuring timely and adequate water supply to all fields. One of the pressing issues in processing is the inefficiency of current irrigation facilities, often utilizing expensive small pumps that do not reach all dry lands, especially those distant from water sources. With high operational costs and time constraints, an alternative approach, such as using solar-powered water pumps, is proposed to enhance effectiveness and efficiency. Corn serves as an example of agricultural productivity, with the land capable of producing 400 kg/1,250 m² during the rainy season, but facing limitations in the dry season. The proposed solar-powered water pump infrastructure aims not only to irrigate agricultural land effectively but also to meet the clean water needs of the Ellak Daya community. This initiative seeks to boost the income of local farmers, enhancing overall business income from agricultural products in Ellak Daya. The assistance provided will focus on management and processing technology, with predetermined key performance indicators aligning with the intended benefits for the community partners [1]-[7]

II. METHODS

Insufficiency in power and water availability poses challenges for farmers. Conventional irrigation methods lack efficiency in addressing multifaceted concerns such as water availability, energy sources, and timely soil profile analysis. Combining automation with traditional irrigation methods presents a significant opportunity to alleviate water and power crises. Cost-effective solar power emerges as a viable solution for energy needs, particularly in the context of Indian farmers. Solar-powered smart irrigation systems, featuring a solar-powered water pump and automatic water flow control through a moisture sensor, offer a compelling solution to the current energy crisis faced by Indian farmers. However, it's essential to note that this system operates only during daylight hours and is ineffective in areas without a grid. Indian farmers commonly utilize drip or sprinkler systems, which, aside from wasting water, can lead to issues like root rot, stunted growth, and reduced yields. Employing an automated irrigation system becomes crucial for conserving water and labor resources. The integration of smart technology in irrigation represents a significant shift from traditional methods, offering advantages in efficiency. The proposed smart irrigation system, powered by solar energy, automates the irrigation process, utilizing the sun's energy to operate the water pump. In addressing management challenges related to planting patterns, the PKM team aims to simplify the process for partners who find recording or creating planting patterns complicated. Training will be provided to enhance skills in recording simple planting patterns, streamlining partner business records. Addressing irrigation schedule system management issues, the team will impart an understanding of calculations for scheduling irrigation based on water needs and a rotation system. The target is a 100% achievement in partners' ability to create and apply this system. The rotation system, managed by operators or officers, ensures optimal water distribution for partner agricultural land. In the processing sector, the focus is on designing an effective, efficient, and affordable water pump technology, exemplified by the Solar Power Pump Farmer Technology with a smart hybrid inverter. Partners will receive training on operating the new pumps. The application of sound business management and processing technology is expected to achieve agricultural production targets, directly impacting partner income and motivating other farmers to harness their potential productively [8]-[19]
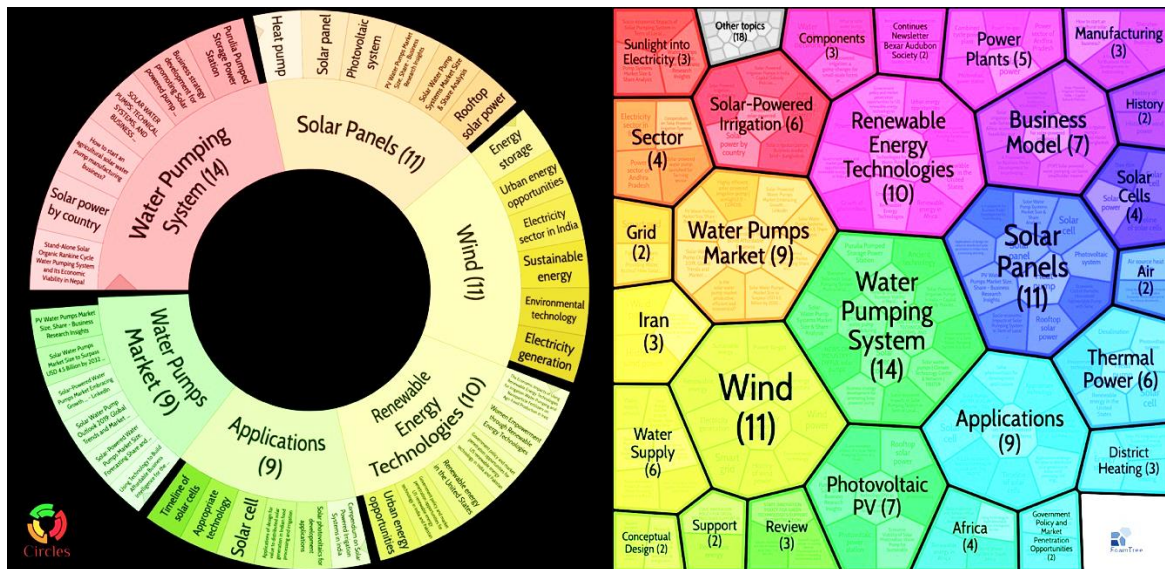
Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

Figure 1. Solar Power Water Pump Technology, Economic, and Business, research trend in Web

https://search.carrot2.org/

III. RESULTS AND DISCUSSION

This program is executed through several stages, addressing identified problems and agreed-upon solutions by the KOSABANGSA Team in collaboration with activity and target partners. The activities involve training and mentoring and are structured. Scheduled for September 26, 2023 (offline) and September 27, 2023 (online) at the village head's residence. Participants include the Accompanying Team, Implementation Team, Village Head, Village Apparatus, chairperson of the target farmer group, representatives of farmer groups, and students. Objectives include initial coordination of the Accompanying Team with partners for land condition assessment and construction planning and the socialization of planned activities and technology to target partner members. Conducted on November 14, 2023, at the Ellak Daya village hall. Participants include the Implementation Team, village head, hamlet head, 2 members of the farmer group, and students. The aim is to provide training and assistance to farmer groups on organizing planting patterns based on crop type, agricultural land area, and water availability. Implemented in two activities, each conducted within specific groups to ensure thorough understanding by farmer groups. Held at the ABDIKA Farmer's group on November 15, 2023, at the house of the head of the farmer's group, Mr. Syarkawi. Participants include the implementing team, all members of the farmer's group, village heads, and hamlet heads. Conducted at the MATHLUBI Farmer group on November 20, 2023, at the house of the head of the farmer group, Mr. Ahmad. Participants include the implementing team, all members of the farmer group, village heads, and hamlet heads. These activities aim to enhance the skills and understanding of farmer groups in critical aspects of agricultural management and processing, contributing to the overall success of the program.

OBSTACLES TO ACTIVITIES: (1) The average age of actively participating members in farmer groups is above 50 years, and their educational background ranges from elementary to high school, resulting in a suboptimal grasp of the training material; (2) The execution of training activities deviated from the planned schedule due to the need for adjustments to accommodate the group's availability for attendance; (3) The heightened engagement of both activity partners and target partners has influenced the execution of the Solarpower Pump Farmer Technology in Ellak Daya Village, focusing on modern rural agricultural irrigation facilitated by a smart hybrid inverter system; (4) The younger generation exhibits diminished interest in cultivating the existing agricultural land.

Figure 1. Solar Power Water Pump Install in Ellak Daya, Sumenep

ACHIEVEMENT OF ACTIVITY TARGET: The assessment of program success is gauged through Pre-Test and Post-Test evaluations administered to participants, delineated as follows: (1) In the Management training focused on setting planting patterns, 35 members from the two partner groups participated. Before the training, the Pre-Test results indicated that 25% on average were unfamiliar with planting pattern procedures. Following the training, the Post-Test revealed a 50% improvement in knowledge about planting pattern procedures. (2) In the Management processing training concerning regulating the irrigation system using the rotation method, the ABDIKA farmer group, comprising 26 members, saw 18 participants attending (70% of total members). All attending farmer group members displayed significant interest in the training, with 100% understanding of the conveyed material on land irrigation through the rotation method. Pre-Test and Post-Test results demonstrated the partners' enhanced comprehension of the irrigation system's arrangement using the rotation method. The average Pre-Test score was 25, which increased by 82%. (3) In the Management processing training focusing on regulating the water system using the rotation method within the MATHLUBI farmer group, 17 members attended (70% of total members). Similar to the ABDIKA group, all participating farmer group members exhibited keen interest in the training, with a 100% understanding of the conveyed material about land irrigation using the rotation method. The Pre-Test and Post-Test results revealed the partners' improved understanding of the drainage system arrangement using the Rotation method, with the average Pre-Test score of 25 increasing by 82%.

Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

Figure 2. Solar Power Water Pump in MATLUBI and ABDIKA Farmer Group, Ellak Daya, Sumenep

The location of Solar Power Water Pump Install in Ellak Daya village, are: (1) Location 1, ABDIKA: Water depth 48 meters, water surface 20 meters, pipe size 5'; and (2) Location 2, MATLUBI: Water depth 56 meters, water surface 28 meters, pipe size 5'.

V. ACKNOWLEDGEMENT

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Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

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Relationships between Service Quality, Store Image, Customer Satisfaction, and Customer Loyalty
Chairul Anam[1], Abdul Mujib[2]

The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance

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ABSTRACT

Purpose: The purpose of this study is to analyze the effect of compensation and leadership on employee performance, and also to analyze the mediating role of motivation.

Design/methodology/approach: The population in this study were 63 employes of Textile Industries in Surabaya, East Java, Indonesia. Questionnaire was used to obtain the data and data analysis technique used was Partial Least Square (PLS).

Findings: The results indicated that compensation and leadership affect employee performance, either directly or indirectly. motivation is able to mediate the effect of compensation and leadership on employee performance.

Research limitations/implications: This research is limited to doing in Textile Industries in East Java, Indonesia. For generalization so that further research can be carried out in different organizations or companies and in different regions (cities).

Practical implications: The results of this research can be used as a reference to employee performance in textile industries and similar industries.

Originality/value: The results of the research show that among the variables of compensation, leadership and motivation need to be implemented in textile industries and similar industries.

Paper type: This paper can be categorized as research paper.

I. INTRODUCTION

In the era of globalization companies are required to be sensitive to the rapidly changing environment. In addition, companies are required to continue to innovate and increase creativity. It is intended that the company can continue to compete in a healthy manner and be able to keep up with environmental changes. The era of globalization is a challenge for companies around the world (Nursaid et al., 2023)

Companies need good and correct management to achieve company goals. In implementing the company's management involves human resources. Human resources are one of the most important assets in the company. Human resources are the only resources that can drive other resources. This aims to achieve the goals of the company (Klaudia et al., 2020). In addition, human resources are company assets that have an important role in a company. This is due to human resources as executors of company policies and operational activities to achieve company goals that have been set. Without human resources, companies cannot generate profits and cannot survive in the business they run (Armantari et al., 2021).

Human resources play a very important role in the company. Human resources are required to be able to think smart, be innovative, have a sense of wanting to progress to work, and have a high enthusiasm to face the era of globalization. Therefore, companies must manage human resources properly and reliably so that companies can compete with competitors (Suwandi & Mandahuri, 2021). One of the supporting factors for a company to be

Page | 1202

The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
Annur Wahyu Hasanah[1], Joko Suyono[1], Damarsari Ratnasahara Elisabeth[2]

able to win competitive competition with competitors is the totality of employee performance in carrying out the mandate to achieve company goals (Lubis et al., 2021).

One of the supporting factors for a company to be able to win competitive competition with competitors is the totality of employee performance in carrying out the mandate to achieve company goals (Lubis et al., 2021). Employee performance is the result of work achieved by a person in carrying out the tasks assigned to him according to established criteria. Employees who have a low level of satisfaction such as dissatisfaction with the value of remuneration co-workers and working conditions will have an impact on their performance.

Based on several previous studies, there are several variables that can affect employee performance, including compensation (Agustine & Andani, 2023; Rahmizal & Arifin, 2023; Wahyuni and Nirmalasari, 2023), leadership (Azhari and Azzahra, 2022; Hayati et al, 2023; and Hartini & Dirwan; 2023), and motivation (Saptono, 2016; Saparudin & Suhardi, 2023; and Mubarok et al, 2023). The results of this study prove that compensation, leadership and motivation affect employee performance. Besides that, motivation is able to mediate the influence of compensation and leadership on employee performance.

The research conducted by Solihin (2023) found slightly different results through research on employee performance at RSKD Dharmas which was influenced by leadership style with motivation as an intervening variable explaining that motivation directly or indirectly does not have a significant effect on employee performance. The study conducted by Pratama et al (2023) also obtained research results regarding "The effect of competence and work discipline on employee performance with work motivation as a mediating variable" that motivation as an intervening variable does not have a significant impact on employee performance. Thus there is still a research gap and it is necessary to re-do research to obtain generalizations.

This research was conducted with the aim of analyzing the influence of compensation, leadership and motivation on employee performance, both directly and indirectly. Besides, this study also analyzes the role of motivation as an intervening variable.

A. Literature Reviews And Hypotheses
1. Motivation

Motivation is a process for associating motives into changes or behavior to fulfill needs and achieve goals or conditions as well as readiness in individuals that encourage their behavior to do something in achieving certain goals (Yusuf, 2015).

Motivation means the impetus that underlies employees to carry out their activities both within the organization and the willingness to work of members of the organization that arises because of encouragement from the subconscious. Motivation is born as a result of the overall integration of personal needs, the influence of the physical environment and the influence of the social environment. The strength of motivation is highly dependent on the process of integrating these needs. Therefore, work motivation is a psychological symptom that is dynamic, multiple and specific for each member of the organization. Therefore, a leader must be sensitive to psychiatric symptoms and psychological factors of employees or members of the organization they lead. This is very important for leaders in providing positive motivation to their members (Wijaya & Manurung, 2021).

Based on the definitions and theories that have been discussed regarding work motivation, work motivation according to Ajabar et al (2021) has several characteristics that can be understood. The following is an overview of these characteristics:
1. Work motivation is personal: The reasons a person is motivated can vary due to varying wants and needs. Motivation can come from the desire to get something you want or avoid something you don't want.
2. Work motivation is an internal process: Work motivation occurs within the individual and is difficult to know directly. Motivation can be estimated through individual behavior, such as direction, intensity, and persistence of action at work.
3. Work motivation is situational or contextual: Work motivation can be influenced by certain conditions or situations. Motivation can be different for the same person but in different situations or contexts.
4. Work motivation is social: Work motivation is influenced by social relations in the workplace. Motivation from colleagues, superiors and subordinates can affect individual motivation, and conversely individual motivation can also affect the people around them.

2. Employee Performance

Employee performance according to (Rivaldo, 2022) is a person's actions or behavior in carrying out tasks that produce results or products to achieve the set goals. In order to achieve the goals desired by both the company and employees, it is important to conduct performance appraisals. Performance appraisal involves certain components that must be met. Human resources have an inseparable role in influencing the course of organizational processes. Performance includes work results and behavior and responsibilities over a certain period.

The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
Annur Wahyu Hasanah[1], Joko Suyono[1], Damarsari Ratnasahara Elisabeth[2]

There are several factors that affect the level of employee productivity in a company according to (Darmawan et al., 2023), including:

1. Individual Variables: Attractive working conditions, fair wages, and security guarantees can provide more motivation to employees. Adequate work facilities, a supportive environment, and opportunities for career development can affect productivity.
2. Organizational Productivity Factors: Good employee competency and effective management knowledge are important assets in increasing company productivity. The availability of sufficient resources to carry out company activities also affects productivity.
3. Knowledge Factor: Extensive knowledge helps employees in making better contributions in solving problems and completing tasks.
4. Skills Factor: Skills that are relevant to the field of work have a significant role in increasing employee productivity.
5. Capability Factor: A good employee's ability, supported by adequate knowledge and skills, can have a positive impact on productivity levels.
6. Attitude and Behavior Factors: The positive attitude and good behavior of employees can directly affect productivity.
7. Work Environment Factors: The creation of a conducive work environment, both physically and in a positive work atmosphere, can encourage increased employee productivity.
8. Process Factors: Implementing effective work processes can help increase team productivity in completing tasks more efficiently.
9. Goal Factor: Setting clear goals for employees can be a strong motivation to increase employee productivity.
10. Employee Health Factors: Health conditions both physically and mentally play a major role in the level of employee productivity

3. Compensation

Compensation is the result of income, either in the form of money or in kind, directly or indirectly from the company which is handed over to employees as a token of gratitude for a job well done. Each company has a different policy in providing compensation to employees. This compensation is a company effort to improve employee welfare, such as holiday allowances, pension benefits and so on (Mujanah, 2019).

Compensation is all forms of remuneration or rewards given to employees, either in the form of remuneration in cash or indirectly in the form of donations or catalysts. Compensation is an important means for companies to retain talent and improve employee performance (Riani, 2014).

Compensation is the overall income in the form of money, goods or other. The compensation from the company that is given to employees includes the principles of fairness, the principles of appropriateness and the principles of fairness. Compensation depends on company policy. Compensation can improve employee welfare (Mujanah, 2019).

Compensation is a gift from the company that is expected by employees as a sign of gratitude for the dedication of employees to the company. The company realizes that human resources are one of the company's biggest assets to develop its business and compete superior to its competitors. Compensation refers to the policies of each company. If the compensation provided by the company to employees is appropriate, then employees can feel more comfortable. So that it can increase work motivation higher. In human resource management, compensation is one of the most important things, so it becomes a sensitive aspect in work relations (Syarief et al., 2022).

The factors that can influence the determination of compensation are as follows: (Syafri & Alwi, 2014).

1. Market Conditions. Market conditions play a major role in determining compensation. Employee salaries are determined by the size of the price of basic necessities that apply in the area each company occupies. Of course, compensation also applies with reference to the price of basic necessities in that area.
2. Social Justice. Social justice by setting compensation according to job roles. Providing wages in accordance with government regulations that have been set.
3. Individual Performance. The company's individual performance really needs to consider this to determine compensation. So employees who have a high enough dedication to the company and totality need to get compensation to stabilize their performance.
4. Seniority. Each company has a different policy in determining compensation. One of them is by paying attention and giving priority to old employees who have good enough performance for the development and progress of the company. Old employees who have dedicated themselves to the company have a long time, so they are entitled to a higher salary than seniors. It also refers to skills, extensive knowledge and more experience than junior employees.
5. Salary Based on Group. In determining compensation judging by class is quite easy than the others. This is because one's tenure or experience is better.

The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
Annur Wahyu Hasanah[1], Joko Suyono[1], Damarsari Ratnasahara Elisabeth[2]

Research on the effect of compensation on motivation has been carried out by several previous researchers, including by (Fauzi et al., 2023), (Qomariyah et al., 2023), (Adnyani & Surya, 2019), (Saputra & Agustedi, 2022), and (Nasurdin et al., 2022). The results of this study provide evidence that compensation has an effect on employee motivation. Thus a hypothesis can be made as follows:

H1: compensation has an effect on employee motivation

4. Leadership

Leadership is an ability of a leader who has both internal and external factors. In addition, leadership can also be defined as someone who has the ability to influence others to act according to their directions (Hutahaen, 2021). Leadership is a process carried out by company managers to direct and influence their subordinates in carrying out task-related activities. This is intended so that subordinates have the willingness to exert all their abilities, both personally and as members of a team, to achieve the goals set by the company (Farida et al., 2022).

Operationally leadership can be divided into five main functions, include the following function (Sutikno, 2018):

1. Instructive Function. The instructive function is a one-way function. The leader is a controller in communication or a communicator. The leader as the party that determines what, how, when where, where the order is carried out so that decisions can be taken and carried out effectively. Leadership requires the ability to influence someone to carry out orders from a leader. So that someone who is ordered by the leader has a high enough motivation to carry out the order. A person under the leader must be ready to carry out the duties and orders of the leader.
2. Consultative Function. The consultative function is a two-way communication. When the leader makes a decision and communicates it to the people under his auspices to give the best advice. So that it can help find the right and accurate decision point.
3. Participation Function. The participation function is a leader's attempt to activate all members under his leadership to participate in decision-making and implementation.
4. Delegation function. The leader gives authority to the person appointed under his leadership. That person will make decisions either with the approval or not with the leader's approval. Things like this leaders must do, because company progress cannot be achieved if there is no solidarity and mutual cooperation and good cooperation between leaders and their subordinates.
5. Control Function. Success in leadership can be seen by the ability of a leader who is able to organize the activities of its members in a directed manner. So that the possibility of achieving company goals is greater. The control function can be realized through the activities of guidance, direction, coordination and supervision.

In terms of concepts, Farida and Hartono (2016) explain that there are two concepts of leadership authority, include the following:

1. Top Down Authority. This authority can come from superiors, which means a president director, for example appointing someone who is considered capable to become the head of the sales department and then being given what authority is deemed necessary for someone to the sales department. So in this case a leader is given the authority to rule from his superiors.
2. Bottom Up Authority. This authority is the basis of acceptance theory. In this concept, leaders are chosen (accepted) by employees who will become their subordinates. If someone is accepted as a leader and given the authority to lead, then subordinates will respect that authority because employees have personal respect to respect that person or that person is a representative who represents values that are considered important. In accordance with this theory, subordinates recognize that guidance and encouragement can be obtained from leadership.

Meanwhile, when viewed from a leadership style, according to Badu & Djafri (2017) there are three general leadership styles that are known, namely authoritarian, democratic, and laissez-faire leadership.

1. Authoritarian leadership involves leaders who make decisions on their own without involving much participation from team members. This style is effective in emergency situations, but can limit team members' creativity and participation.
2. Democratic leadership involves the active participation of team members in decision-making and encourages collaboration, increases team member engagement, promotes creativity, and supports better decision-making through collective agreement.
3. Laissez-faire leadership gives team members high freedom to make decisions and carry out their respective tasks, but can also result in a lack of direction and lack of accountability. An effective leader will choose and adapt a leadership style according to the situation and his team members to achieve optimal results.

Research on the influence of leadership on motivation has been carried out by several previous researchers including (Nurofik & Yuliana, 2022), (Martini et al., 2022), (Nelson, 2021), (Guterresa et al., 2020), and (Norawati & Syafarisna, 2023). The results of this study prove that leadership influences motivation. Thus a hypothesis can be made as follows:

H2: leadership influences employee motivation

5. Compensation and Employee Performance

Previous research on the effect of compensation on employee performance has been carried out by several previous researchers including (Agustine & Andani, 2023), (Pitria, 2023), (Zainuddin et al., 2023), (Asriani et al., 2020), and (Yudistia & Conscience, 2023). The results of this study prove that compensation affects employee performance. Thus a hypothesis can be made as follows:

H3: compensation affects employee performance

6. Leadership and Employee Performance

Several previous studies have been conducted on the influence of leadership on employee performance by Azhari and Azzahra (2022); Hayati et al (2023); and Hartini & Dirwan (2023). The results of this study prove that leadership influences employee performance. Thus a hypothesis can be made as follows:

H4: leadership influences of employee performance.

7. Motivation and Employee Performance

Previous research on the effect of motivation on employee performance has been carried out by several previous researchers including (Abdusalam & Budiyanto, 2023), (Sibagariang & Wahyuningsih, 2023), (Putuhena, 2023), (Dedali, 2023), and (Winanti et al ., 2023). The results of this study prove that motivation influences employee performance. Thus a hypothesis can be made as follows:

H5: motivation influences employee performance.

8. The Role of Motivation as a Mediation Between Compensation and Employee Performance

Research on the effect of compensation on employee performance with motivation as an intervening variable has been carried out by several previous researchers including (Novita et al., 2023), (Mayasari & Harjatno, 2023), (Armantari et al., 2021), (Mayasari & Harjatno, 2023), (Armantari et al., 2021), (Candradewi & Dewi, 2019) and (Nugraha & Pibriari, 2022). The results of this study prove that compensation affects employee performance with motivation as the intervening variable. Thus a hypothesis can be made as follows:

H6: motivation is able to mediate the effect of compensation on employee performance

9. The Role of Motivation as a Mediation Between Leadership and Employee Performance

Previous research on the effect of competence on employee performance with motivation as an intervening variable has been carried out by several previous researchers including (Mutiya et al., 2022), (Firmansya et al., 2022), (Pranata, 2019), and (Putra et al, 2021). The results of this study prove that leadership influences employee performance with motivation as an intervening variable. Thus a hypothesis can be made as follows:

H7: motivation is able to mediate the influence of leadership on employee performance

Based on the formulation of the problem that has been made and also based on previous research, a research framework can be compiled as follows:
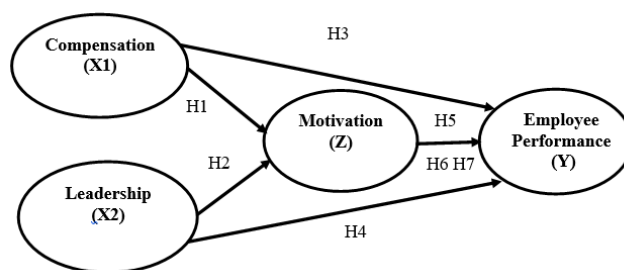

Figure 1: The research model

II. METHODS

The population in this study were 63 permanent employee of textile industries in Surabaya, East Java, Indonesia. While the sampling technique used total sampling, meaning that the entire population of 63 people was taken as a research sample. The questionnaire technique is used to obtain data related to the research variables. The questionnaire is arranged in the form of a closed statement with 5 (five) alternative answers using a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Data analysis technique used to analyze questionnaires that have been filled out by respondents is Partial Least Square (PLS).

III. RESULTS AND DISCUSSION

A Outer Model Evaluation
1. Convergent Validity

To test convergent validity, the outer loading value or loading factor is used. An indicator is declared to meet convergent validity in a good category if the outer loading value is > 0.7. The following is the value of the outer loading of each indicator on the research variable:

Table 1. Outer Loading

Variable	Indicator	Outer loading
Compensation (X1)	X1.1	0,897
	X1.2	0,894
	X1.3	0,885
Leadership (X2)	X2.1	0,893
	X2.2	0,882
	X2.3	0,879
	X2.4	0,915
	X2.5	0,896
	X2.6	0,870
Motivation (Z)	Z1.1	0,892
	Z1.2	0,902
	Z1.3	0,920
	Z1.4	0,861
	Z1.5	0,880
	Y.1	0,839

Variable	Indicator	Outer loading
	Y.2	0,793
	Y.3	0,895
Employee Performance (Y)	Y.4	0,851
	Y.5	0,876

The data presented in the table above shows that each research variable indicator has an outer loading value > 0.7. According to Ghozali (2018), the outer loading value between 0.5 - 0.6 is considered sufficient to meet the convergent validity requirements. The data above shows that there is no variable indicator whose outer loading value is below 0.5, so all indicators are declared feasible or valid for research use and can be used for further analysis.

2. Discriminant validity
Discriminant validity can be known by looking at the average variant extracted (AVE) value for each indicator and it is required that the value must be > 0.5 for a good model (Ghozali, 2018).

Table 2. Average Variant Extracted (AVE)

Variable	AVE
Compensation	0.796
Leadership	0.791
Motivation	0.794
Employee Performance	0.725

The data presented in table 2 above shows that the AVE value of compensation, leadership, motivation and employee performance variables is > 0.5. So it can be stated that each variable has good discriminant validity.

3. Composite Reliability
Composite Reliability is the part that is used to test the reliability value of indicators on a variable. A variable can be declared to meet composite reliability if it has a composite reliability value > 0.6 (Ghozali, 2018). The following is the composite reliability value of each variable used in this study:

Table 3. Composite Reliability

Variable	Composite Reliability
Compensation	0,876
Leadership	0,948
Motivation	0,938

Employee Performance	*0,930*

Based on the data presented in table 3 above, it is known that the composite reliability value for the variables of compensation, leadership, motivation and employee performance are bigger than 0.6 (> 0.6). Thus, it can be stated that each variable has a good composite reliability.

4. Cronbach Alpha
The reliability test with the composite reliability above can be strengthened by using the Cronbach alpha value. A variable can be declared reliable or fulfills Cronbach alpha if it has a Cronbach alpha value > 0.7 (Eisingerich and Rubera, 2010). The following is the Cronbach alpha value of each variable:

Table 4. Cronbach Alpha

Variable	*Cronbach Alpha*
Compensation	*0,872*
Leadership	*0,947*
Motivation	*0,935*
Employee Performance	*0,905*

Based on the data presented above in table 4.19, it can be seen that the Cronbach alpha value of each research variable is > 0.7. Thus, these results can indicate that each research variable has met the requirements of the Cronbach alpha value. So, it can be concluded that all variables have a high level of reliability.

B. Inner Model Evaluation
The following is an inner model involving compensation, leadership, motivation and employee performance variables.
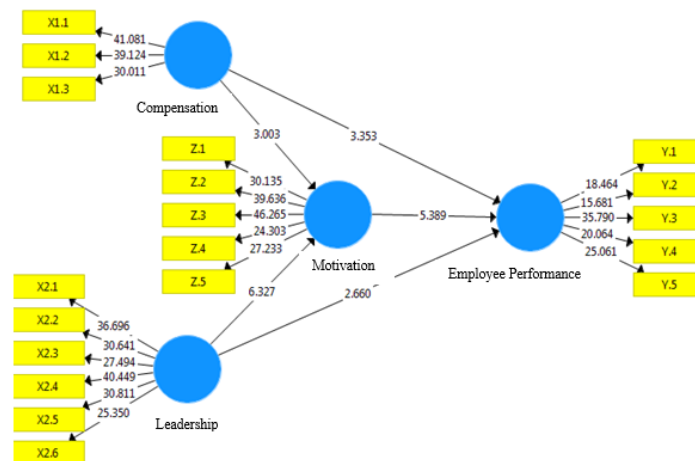

Figure 1. Inner Model

The schematic of the inner model that has been shown in figure 1 above can be explained that the greatest value is shown by leadership to motivation of 6.327. Then the smallest effect is the leadership on employee performance of 2.660.

C. Hypothesis Testing

In accordance with the data processing that has been done, the results can be used to answer the hypothesis in this study. Hypothesis testing in this study was carried out by looking at the T-Statistics value and the P-Values value. The research hypothesis can be declared accepted if the P-Values value < 0.05 (Yamin and Kurniawan, 2011). The following are the results of hypothesis testing obtained in this study through the inner model:

Table 5. Hypothesis Test of Direct Effect

Hypothesis	Effect	Original Sample	T-statistics	P-Values	Result
H1	Compensation → Motivation	0,308	3,003	0,003	Accepted
H2	Leadership → Motivation	0,631	6,327	0,000	Accepted
H3	Compensation → Employee Performance	0,283	3.353	0,001	Accepted
H4	Leadership → Employee Performance	0,242	6,327	0,008	Accepted
H5	Motivation → Employee Performance	0,469	5,389	0,000	Accepted

Table 6. Hypothesis Test of Indirect Effect

Hipotesis	Effect	Original Sample	T-statistics	P-Values	Result
H6	Compensation → Motivation → Employee Performance	0,144	2,422	0,016	Accepted
H7	Leadership → Motivation → Employee Performance	0,295	4,465	0,000	Accepted

Referring to the results of the data in tables 5 and 6 above, it can be seen that of the seven hypotheses proposed in this study, they are as follows:

1. The effect of compensation on motivation has a P value of 0.003 or less than 0.05. This means that the compensation variable affects motivation.
2. The Influence of Leadership on Employee Motivation has P values of 0.000 or less than 0.05. This means that the leadership variable influences employee motivation.
3. The effect of compensation on employee performance has a P value of 0.001 or less than 0.05. This means that the compensation variable affects motivation.
4. The influence of work leadership on employee performance has a P value of 0.008 or less than 0.05. This means that the leadership variable influences motivation.
5. The effect of motivation on employee performance has a P value of 0.000 or less than 0.05. This means that the motivation variable affects employee performance.
6. The effect of compensation on employee performance through motivation has a P value of 0.016 or less than 0.05. This means that the Organizational Support variable has an effect on Employee Performance Through Motivation.
7. The Influence of Leadership on Employee Performance Through Motivation has a P value of 0.000 or less than 0.05. This means that the leadership variable influences employee performance through motivation.

V. CONCLUSION

Referring to the results of hypothesis testing shows that compensation has an effect on motivation. Both variables have a positive relationship direction. These results indicate that changes that occur in the Loyalty variable will make changes in the Motivation variable that are directly proportional. If compensation shows in a good position it will encourage high motivation. Conversely, low compensation will have an effect on decreasing motivation. The results of this study are in line with previous studies conducted (Fauzi et al., 2023), (Qomariyah et al., 2023), (Adnyani & Surya, 2019), (Saputra & Agustedi, 2022), and (Nasurdin et al., 2022). The results of this study provide evidence that compensation has an effect on employee motivation.

Referring to the results of hypothesis testing, leadership influences motivation. Both variables have a positive relationship direction. These results indicate that changes that occur in the Leadership variable will have an effect on changes in the Motivation variable that are directly proportional. If leadership is carried out in the right organization, it will have a positive impact on motivation. Conversely, bad leadership will have a bad effect on motivation. The research results which state that leadership influences motivation are supported by previous studies including research (Nurofik & Yuliana, 2022), (Martini et al., 2022), (Nelson, 2021), (Guterresa et al., 2020), and (Norawati & Syafarisna, 2023). The results of this study prove that leadership influences motivation.

Referring to the results of hypothesis testing, it can be concluded that there is a relationship between compensation and employee performance. This relationship is positive, which means changes in compensation will affect changes in line with employee performance. If Compensation increases, it will lead to an increase in Employee Performance. Conversely, if compensation is low, it will have a negative impact on employee performance by causing a decrease in quality. The results of this study are relevant to several previous researchers including others by (Agustine & Andani, 2023), (Pitria, 2023), (Zainuddin et al., 2023), (Asriani et al., 2020), and (Yudistia & Nurani, 2023). This research provides evidence that compensation affects employee performance. The existence of compensation will make employees optimal in carrying out their duties. Employees will easily complete the job because it is supported by proper compensation. Problems will be easily resolved because they are always at work receiving good compensation support.

The results of the hypothesis test show that leadership has an effect on employee performance. The relationship between the two variables is positive. These results indicate that changes in the Leadership variable will be followed by changes in the Employee Performance variable in the same direction. If leadership shows high it will make employee performance increase. Conversely, low leadership will have an impact on poor employee performance. The results of this study are supported by previous research which states that leadership influences employee performance (employees). Research (Mustafa et al., 2023), (Ryan, 2023), (Gulo & Tjun, 2023), (Purwanto & Nurhasanah, 2022), (Ryan, 2023), and (Ramli, 2023) states that good leadership will have an impact positive on employee performance. Leadership will make employees able to carry out work targets both quantitatively and qualitatively.

Based on hypothesis testing, confirms that motivation influences employee performance. The direction of the relationship between the two variables is positive. These results indicate that changes that occur in the variable Motivation will have an impact on changes in the Employee Performance variable in a direct proportion. If motivation improves, it will encourage an increase in employee performance. Conversely, low motivation will have an effect on decreasing employee performance. The results of the study stating that motivation influences employee performance are relevant to previous research, including (Abdusalam & Budiyanto, 2023), (Sibagariang & Wahyuningsih, 2023), (Putuhena, 2023), (Dedali, 2023), and (Winanti et al., 2023). The results of this study prove that motivation influences employee performance.

Referring to the results of hypothesis testing shows that Management Support affects Employee Performance through Motivation. The relationship between the three variables is positive. These results indicate that changes in the variable Motivation will encourage the influence of Leadership on Employee Performance which is directly proportional. If motivation increases, the effect of compensation on employee performance is even greater. The results of this study received support from previous research. Research (Novita et al., 2023), (Mayasari & Harjatno, 2023), (Armantari et al., 2021), (Mayasari & Harjatno, 2023), (Armantari et al., 2021), (Candradewi & Dewi, 2019) and (Nugraha & Pibriari, 2022). A number of these studies state that compensation affects employee performance with motivation as an intervening variable.

The results of the hypothesis test show that leadership influences employee performance through motivation. The relationship between the three variables is positive. These results indicate that any changes in the variable Motivation will support the influence of Leadership on Employee Performance in a unidirectional manner. If motivation changes in a good direction, it will encourage the influence of leadership on employee performance. The results of this study have the support of previous research. Research (Mutiya et al., 2022), (Firmansya et al., 2022), (Pranata, 2019), and (Putra et al., 2021) state that leadership influences employee performance with motivation as an intervening variable.

The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
Annur Wahyu Hasanah[1], Joko Suyono[1], Damarsari Ratnasahara Elisabeth[2]

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The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
Annur Wahyu Hasanah[1], Joko Suyono[1], Damarsari Ratnasahara Elisabeth[2]

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The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
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The Mediating Role of Motivation in Relationship Between Compensation and Leadership on Employee Performance
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Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method

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ABSTRACT

Purpose: The purpose of the study is to explore the benefits of digitalization, specifically in the context of PT Biro Klasifikasi Indonesia's (PT. BKI) digital transformation efforts. The focus is on how digitalization can enhance operational efficiency, productivity, customer service, and global competitiveness in the maritime industry.

Method: The research employs the Design Thinking method to identify and address customer needs and challenges. It highlights the development of the "Digitalized Ship Management Maintenance System" application, showcasing its role in simplifying ship maintenance processes. The study uses a customer-centric approach to determine modules that provide effective solutions to identified issues.

Result: The Digitalized Ship Management Maintenance System application is designed to streamline ship maintenance for customers. Utilizing Design Thinking, the study identifies customer problems and develops modules to address them. The application offers direct integration with PT. BKI's survey status, strengthening its international classification standing. Additionally, it supports government data integration, ensuring safety and environmental protection in Indonesia's maritime areas.

Implication: The implications of the study underscore the significance of digital transformation for companies in the maritime sector, particularly for PT. BKI. The "Go Global" and "Big Top 5 Asia" targets align with the broader benefits of digitalization, including enhanced operational efficiency, global market access, and improved customer service. The developed application serves as a tangible outcome of the digitalization process, contributing to PT. BKI's competitiveness and its role as a trusted classification body.

Paper type: Research paper

Keyword: Digital Transformation, Planned Maintenance System, Design Thinking

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I. INTRODUCTION

In the era of Industry 4.0, the digitalization of processes has emerged as a transformative force, offering multifaceted advantages to companies. This paradigm shift facilitates operational efficiency, productivity enhancement, improved customer service, and enhanced data analytics. Through the adoption of digital technologies, businesses can streamline operations by automating processes and integrating diverse systems, leading to time, labour, and resource savings. Digitalization also empowers companies to elevate customer service, market a variety of services and products across different platforms, and optimize real-time production systems.

For state-owned enterprise PT. Biro Klasifikasi Indonesia (Persero), subsequently referred to as "PT. BKI," the significance of digital transformation is pivotal. Originally established in 1964 and later rebranded as Holding ID Jasa Survey in December 2022, PT. BKI aspires to achieve World Class Company status and secure a position among the Big Top 5 in Asia, providing Testing, Inspection, and Certification (TIC) services. The company recognizes the imperative of digital evolution to stay competitive in a global landscape.
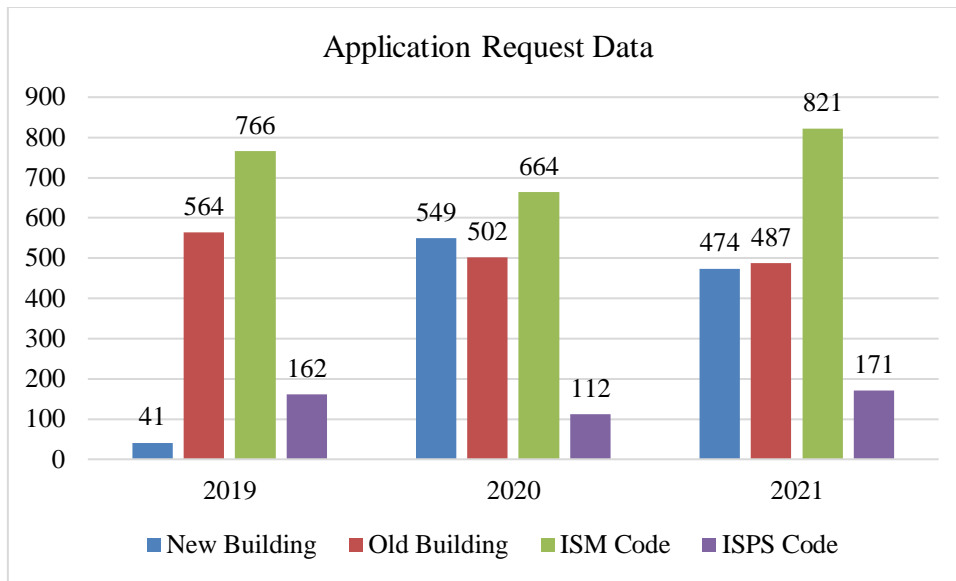
Figure 1 Application request Data to PT. BKI

Source: Annual Report PT. BKI, 2019 2020 2021(Indonesia, 2019, 2020, 2021)

The provided data outlines the annual application requests submitted to PT. BKI for the years 2019, 2020, and 2021. The requests are categorized into four types: New Buildings, Existing Buildings, ISM Code, and ISPS Code. In the New Buildings category, there was a notable surge from 41 applications in 2019 to 549 in 2020, followed by a decrease to 474 in 2021. Conversely, the number of requests for Existing Buildings witnessed a gradual decline from 564 in 2019 to 502 in 2020 and further to 487 in 2021. The data also reveals fluctuations in applications related to safety management, with ISM Code requests decreasing from 766 in 2019 to 664 in 2020 and then increasing to 821 in 2021. Similarly, ISPS Code applications fluctuated, starting at 162 in 2019, decreasing to 112 in 2020, and rebounding to 171 in 2021. This data provides valuable insights into the shifting demand for various services provided by PT. BKI over the three-year period.

The pressure for digital transformation arises from both internal and external factors, urging stakeholders to embrace digitalization as a fundamental solution. In a landscape where businesses, be they state-owned, private, or startups, vie to offer optimal solutions, technology becomes indispensable. The presence of diverse technologies across society, especially during the COVID-19 pandemic, has underscored the importance of digital innovation. Transforming into a digital-centric entity is no longer a supplementary system but a core business strategy.

The relentless pursuit of digital transformation by PT. BKI is fueled by the escalating competition, particularly from foreign classification bodies operating in Indonesia. Changes in regulations, such as KM No. 20 Tahun 2006, PM No. 7 Tahun 2013, and PM No. 61 Tahun 2014, have paved the way for foreign classification bodies to compete directly with PT. BKI. This intensifying competition, coupled with the increasing influence of International Association of Classification Society (IACS) members, poses challenges to PT. BKI's market share and revenue (Peraturan Menteri Perhubungan PM 61 Tahun 2014, 2014).

In response to the evolving landscape, PT. BKI initiated internal system developments, notably focusing on easing customer submission processes for Ship Design Approval and Construction Document Approval. This research seeks to advance these efforts by facilitating swift and efficient approval processes, providing document tracking information, and enhancing approval and structural verification within PT. BKI. The successful establishment of this ecosystem has garnered significant appreciation internally and from customers, introducing a novel approach to document approval within PT. BKI.

As PT. BKI navigates the dynamics of the post-COVID new normal in 2022, the focus extends to the development of a Maintenance System, an aspect not yet fully realized by PT. BKI but present in foreign classification bodies. Currently limited to Continuous Machinery Survey (CMS), PT. BKI aims to expand its capabilities to include Planned Maintenance System (PMS). This development aligns with Rules of Classification and Survey Section 3 no. 1.3.4 Part A, highlighting the absence of a Planned Maintenance System application.

The research scope narrows down the development of an online-based Planned Maintenance System application with a maximum of four main modules. These modules include Ship Engine Maintenance, Spare Part Request, Human Resource Management (Ship Crew), and Document Management (Classification and Statutory

Documents). The integration of data with PT. BKI's internal systems encompasses General Ship Data, Documents, and Survey Status.

Building upon the background analysis, the problem formulation addresses key questions:

1) How to design the Planned Maintenance System application using the Design Thinking method?
2) What additional features in the Planned Maintenance System application can serve as value additions for PT. BKI?
3) How to develop the Planned Maintenance System application for customers and integrate it with PT. BKI's internal systems?

The primary objective is the full-fledged support of PT. BKI in the development of the Digitalized Ship Maintenance Management System. The development involves creating a responsive website, utilizing Design Thinking methods (Council, 2007) (Lataifeh, 2018), and incorporating features such as Crew Management, Document Integration, and Survey Alignment within the Planned Maintenance System. The application aims to be a strategic innovation supporting PT. BKI's core business.

II. METHODS

A. Flowchart Methodology

The research methodology for developing the Digitalized Ship Maintenance Management System involves a structured flowchart representing the development process of the application. The flowchart encompasses various stages, emphasizing user empathy, problem analysis, application development, and observation.
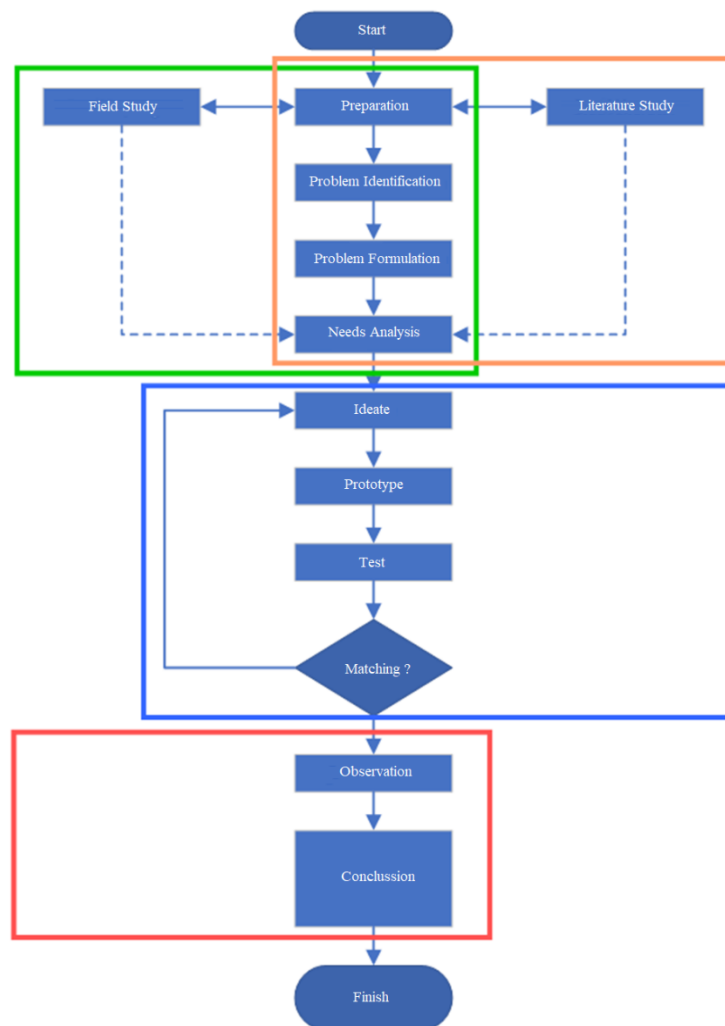

Figure 1 Flowchart Methodology

Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method
Bayu Mahardika Wicaksono, Emmy Pratiwi, Octaviyanti Dwi Wahyurini

The research stages carried out were:
1) Process Model Stage (Green)
Utilizes Divergence and Convergence in the Empathy phase to understand user needs, involving both company and operator perspectives.
2) Problem Identification Stage (Orange)
Addresses 'Why, What, and How' aspects of problems, considering field issues and regulatory compliance (ISM Code, Classification Body Rules, Ministry of Transportation regulations).
3) Application Development Stage (Blue)
Implements Divergence and Convergence in the Ideation, Prototyping, and Testing phases to develop an online-based application using Design Thinking.
4) Observation and Conclusion Stage (Red)
Involves observation and drawing conclusions using the Design Thinking method.

B. Detail Concept of Planned Maintenance System Development

The Digitalized Ship Maintenance Management System includes detailed modules (Lloyd et al., 2001) (Stazić et al., 2017) (Sampson et al., 2018):
1) Ship Data Module:
    a. General ship data (type, dimensions, registration).
    b. Component data, including maintenance scheduling, plans, and reports.
    c. Crew Management Module:
    d. Monitors ship crew across different roles.
2) Ship Documents Module:
    a. Certificate documents (hull, engine, load line).
    b. Statutory documents (safety radio, IOPP, ILLC).
    c. Seafarer documents (COC, BST).
3) Order Part Data Module:
    a. Integrates stock needs for ship spare parts with the central office.

C. Detail Concept of Design Thinking Method

In the detailed concept of the Design Thinking Method, several key components play crucial roles in guiding the development process (Vianna et al., 2012) (You, 2022) (Pereira & Russo, 2018).

Firstly, Empathy Mapping focuses on the target users, specifically Ship Owners and Operators, by creating a comprehensive map that outlines their needs and experiences. This method helps in gaining a deeper understanding of user perspectives and requirements.

Next, the User Persona aspect involves diverging and converging in both problem and solution spaces. This aids in comprehending and addressing various perspectives related to the challenges at hand.

The Micro & Macro Cycle is an integral part of the process, involving stages such as understanding, observation, definition of points of view, ideation, prototyping, and testing solutions. This cyclic approach ensures a thorough exploration and refinement of potential solutions.

The adoption of the Scrum Process is emphasized, following ISO standards such as ISO 13407 and ISO 9241-210:2019. This adherence ensures a structured and standardized approach to the design thinking methodology.

The Golden Circle concept is applied to define the 'Why', 'How', and 'What' aspects of the application's development. This helps in aligning the development goals with a clear understanding of the purpose, process, and outcomes.

Lastly, User Journey Maps are developed for different actors, including Manager Ownership, User Ownership, Manager Operator, and User Operator. These maps depict scenarios, expectations, phases, actions, mindsets, emotions, and opportunities throughout the user's interaction with the application, providing a holistic view of the user experience.

D. Development of Digitalized Ship Maintenance Management System

In the realm of website applications within the context of the company's operations, three distinct categories serve specific functions (Lewrick et al., 2018) (Zulkarnain & Malang, 2019):

In the Company-Side Website Application dedicated to Ownership, a comprehensive dashboard prototype is designed. This dashboard offers an overview of the entire fleet, including details about each ship, crew specifics, and integrated ship documents. It efficiently lists all owned ships, providing information such as maintenance plans, crew salaries, and relevant ship documents. Additionally, the application displays a crew list with placement details, alerts for expiring ship documents, and an inventory of spare parts for each ship.

The Ship Operator Website Application, designated for operational purposes, features a specialized dashboard prototype. This platform enables ship operators to input daily monitoring data seamlessly. It also presents detailed information about each ship, including crew details, ship documents, and the current stock of spare parts.

For the Classification Body Internal Website Application, an internal login is established exclusively for PT. BKI activities. This application streamlines the display of order tracking, tracking the progression from customer request to certificate issuance. Moreover, it integrates seamlessly with PT. BKI's internal system, incorporating data from the Digitalized Ship Maintenance Management System to enhance the efficiency and accuracy of the overall process.

E. Questions Regarding Issues and Solution Creation

Utilizing the Empathy Maps Canvas as a guide, the researcher has formulated a set of interview questions aimed at gaining a comprehensive understanding of user perspectives, challenges, and expectations within the context of ship maintenance.

The offline interview questions have been carefully crafted to delve into various aspects:

1) Years of experience in ship maintenance - to gauge the participant's level of expertise and familiarity with the field.
2) Current position and years in the role - to understand the participant's current professional standing and tenure in their role.
3) Challenges faced in ship maintenance - to identify and comprehend the specific difficulties encountered in the daily responsibilities of the participants.
4) Current use of digital or manual systems - to assess the technology adoption within the domain of ship maintenance.
5) Experience with Planned Maintenance System - to gauge the participant's familiarity and experience with existing maintenance systems.
6) Interest in additional features such as Integrated Document Management, Human Resource Management, Data Warehouse Part - to explore potential enhancements to the current system.
7) Depth of interest in DMMS application features - to understand the level of enthusiasm or curiosity regarding specific features of the Digitalized Ship Maintenance Management System.
8) Evaluation of the application's functionality and appearance - to gather feedback on both the usability and visual aspects of the application.
9) Recommendations after using the application - to solicit constructive suggestions for improvements or additions to enhance user experience.
10) Willingness to participate further in DMMS development research - to ascertain the participant's interest in contributing to ongoing research and development efforts related to the Digitalized Ship Maintenance Management System.

F. Defining Problems and Agreed-upon Solutions

The process of defining and interpreting presented problems involves a comprehensive examination aimed at gaining a clear understanding of the issues at hand. In this context, the goal is to establish a shared understanding and consensus on key challenges, thereby paving the way for the creation of user-centric solutions. This entails dissecting the problems presented, breaking them down into their fundamental components, and interpreting their implications. The collaborative effort seeks to align perspectives, acknowledging the significance of each issue and identifying common ground among stakeholders. By fostering consensus on vital issues, the groundwork is laid for the development of solutions that prioritize the needs and preferences of the end-users. This iterative and inclusive approach ensures that the solutions generated are not only effective but also resonate with the diverse perspectives and requirements of the user base.

G. User Journey Maps

Develops user journey maps for different user levels, ensuring differentiation in access based on user needs and responsibilities (Bradley et al., 2021). The development of user journey maps involves the creation of visual representations that outline the experiences of users as they interact with a system or product. In this context, the focus is on crafting distinct user journey maps tailored to different user levels, thereby ensuring a customized approach based on individual needs and responsibilities.

By delineating the unique paths and touchpoints for various user levels, the goal is to provide a comprehensive understanding of the user experience at each stage. This differentiation in access is designed to align with the diverse needs and responsibilities associated with different user roles. For instance, users with varying levels of authority or distinct responsibilities within a system may encounter different features, functionalities, or decision points during their journey.

Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method
Bayu Mahardika Wicaksono, Emmy Pratiwi, Octaviyanti Dwi Wahyurini

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By mapping out these journeys, designers and developers gain insights into the specific requirements and pain points of each user level. This approach allows for the implementation of user-centric design principles, tailoring the user experience to address the specific demands and expectations of different user groups. Ultimately, the development of user journey maps for different user levels contributes to a more inclusive and effective design, enhancing user satisfaction and usability across the entire user spectrum.

III. RESULTS AND DISCUSSION

A. Data Collection and Interview Analysis

The research involved interviews with a minimum of six users, who were customers of PT. BKI. The users included both managers and crew members, providing diverse perspectives. Journey maps were created based on the insights gathered from these interviews. The users interviewed were Dodid, Ferry, Lukas, I Made D., Nanang, and Abdi S.. The interviews identified specific problems and definitions, leading to proposed solutions.

1. User Persona and Identified Problems

Table 1 User Persona

Dodid	*Ferry*	*Lukas*
Problem: Already using a Planned Maintenance System (PMS), but desires an application for Annex IV and related documents and checklists.	*Problem: Faces challenges with manual data entry in the existing PMS.*	*Problem: Monthly reporting integration with the central office is not real-time, leading to discrepancies in maintenance.*
Definition: Needs a tool for new classification body documents.	*Definition: Requires a document management tool with standardized data.*	*Definition: Needs tools supporting PMS for real-time integration.*
Solution: Proposed the development of a Document Integration Module.	*Solution: Proposed the development of a Document Integration and PMS Module.*	*Solution: Proposed the development of a Document Integration and PMS Module.*

I Made D.	*Nanang*	*Abdi S.*
Problem: No existing PMS; seeks digitalization for ease of monitoring ship maintenance.	*Problem: Urgently requires digitalization for remote monitoring of maintenance and inventory control.*	*Problem: A need for tools to monitor ship maintenance and support operational needs.*
Definition: Needs PMS tools for digitalized ship maintenance.	*Definition: A tool for recording and accessing maintenance records.*	*Definition: Requires PMS tools for monitoring ship maintenance.*
Solution: Proposed the development of a PMS, Document Integration, and Spare Parts Module.	*Solution: Proposed the development of a PMS, Document Integration, and Spare Parts Module.*	*Solution: Proposed the development of a PMS, Document Integration, and Spare Parts Module.*

The table outlines the diverse challenges faced by various user personas in the context of a Planned Maintenance System (PMS) and the proposed solutions to address these issues (Lloyd et al., 2001) (Akyuz & Celik, 2017) (Stazić et al., 2017) (Ardhi et al., 2017) (Stazić et al., 2018). Dodid. seeks a tool for new classification body documents and proposed a Document Integration Module. Ferry encounters difficulties with manual data

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entry and suggests the development of a Document Integration and PMS Module. Lukas requires real-time integration for monthly reporting discrepancies and proposed a similar module. I Made D. aims for digitalization in monitoring ship maintenance, while Nanang urgently needs remote monitoring tools. Both propose a comprehensive PMS, Document Integration, and Spare Parts Module. Abdi S. emphasizes the necessity for tools supporting ship maintenance and operational needs and, like the others, suggests the development of the same integrated module. In essence, the proposed solutions focus on creating a versatile module catering to document integration, PMS, and spare parts management, tailored to the specific needs of each user persona.

2. User Journey Maps

User journey maps were created for each user, illustrating the stages and interactions based on their problems and solutions. These maps informed the development process, focusing on document status monitoring, integration, maintenance, and spare parts management.

   a.   Journey Map Ship Manager (Ownership - PMS)

This journey map focuses on the Ship Manager's perspective in terms of ownership, specifically within the context of the Planned Maintenance System (PMS). It likely outlines the various stages and touchpoints involved in the Ship Manager's responsibilities related to planned maintenance activities.
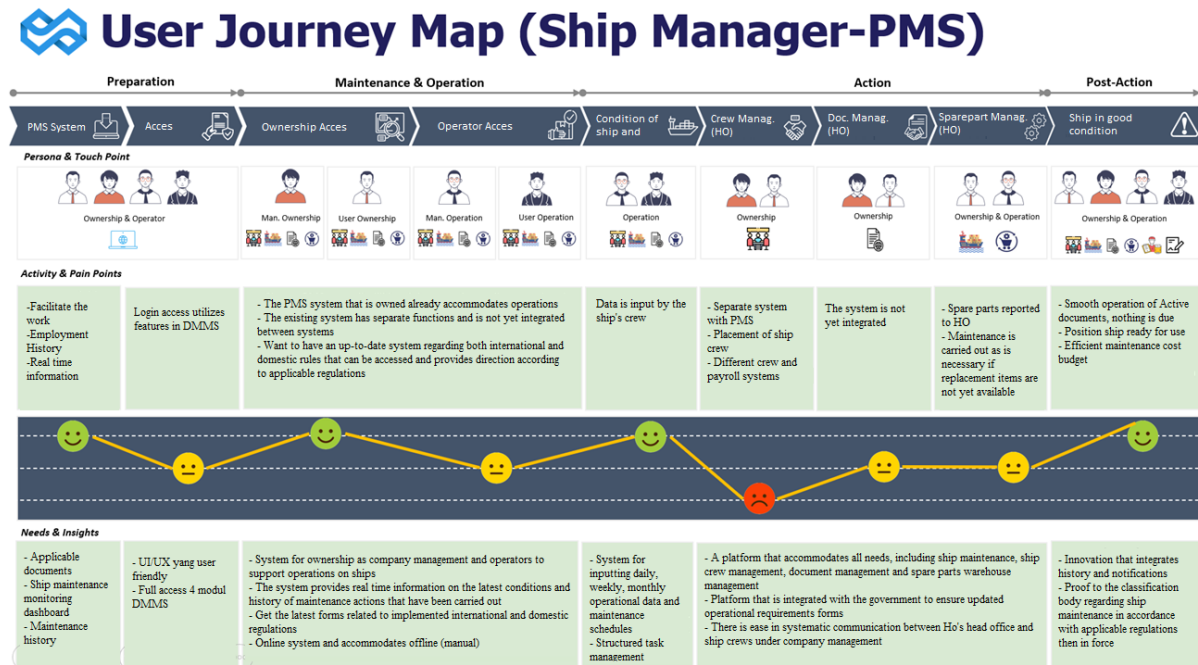

Figure 2 User Journal Map (Ship Manager – PMS)

   b.   Journey Maps Technical Operation (Operator - PMS)

This journey map is centered around the Technical Operator's viewpoint within the Planned Maintenance System (PMS) framework. It details the key steps and interactions involved in technical operations as part of the ownership responsibilities related to the Planned Maintenance System.
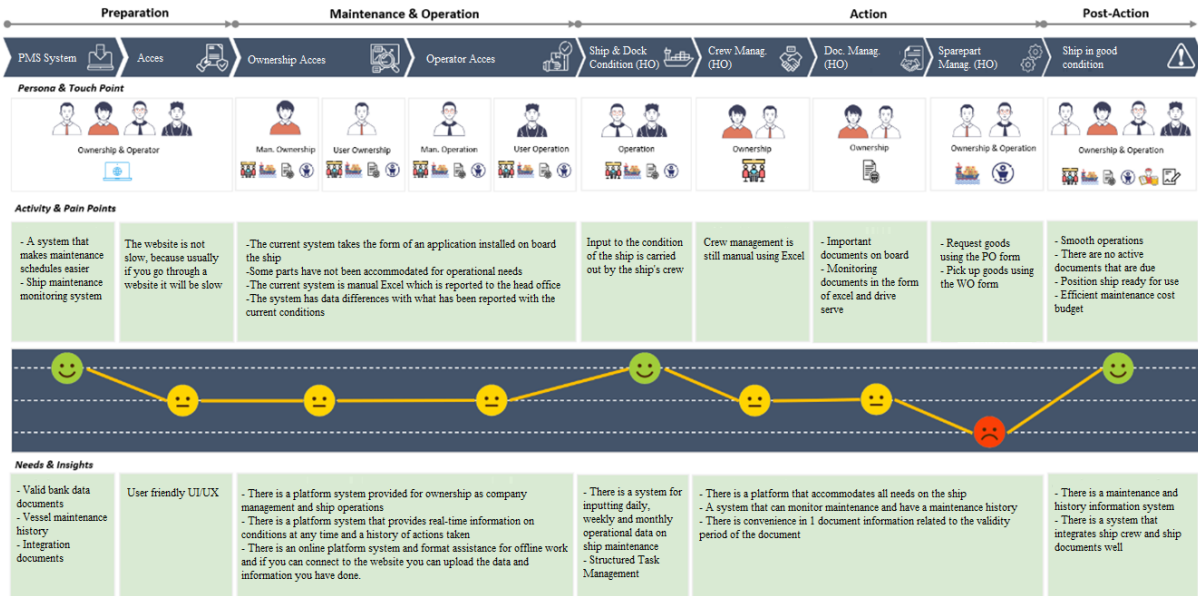
Figure 3 User Journal Map (Technical Manager – PMS)

c. Journey Maps Ship Manager (Ownership - Non-PMS)

This journey map focuses on the Ship Manager's role in ownership but outside the scope of the Planned Maintenance System (Non-PMS). It may cover different aspects or processes that fall outside the planned maintenance activities, providing a comprehensive view of Ship Manager's responsibilities in other areas.
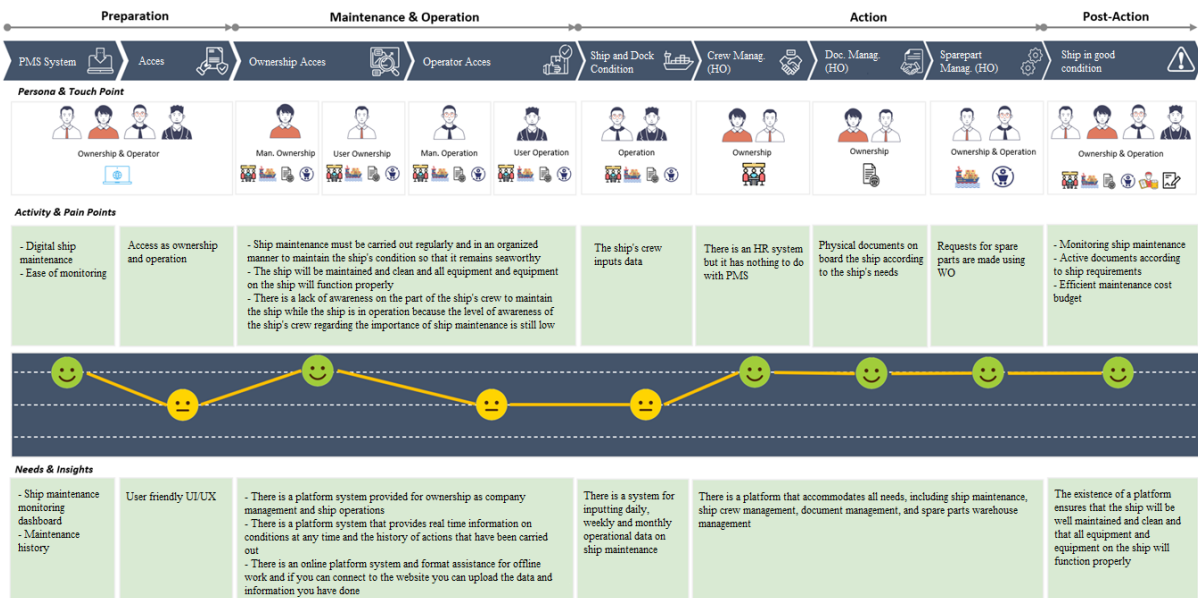

Figure 4 User Journey Map (Ship Manager – Non PMS)

d. Journey Maps Superintendent (Ownership - Non-PMS)

This journey map is tailored to the perspective of the Superintendent in terms of ownership but not specifically related to the Planned Maintenance System (Non-PMS). It likely illustrates the superintendent's

Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method
Bayu Mahardika Wicaksono, Emmy Pratiwi, Octaviyanti Dwi Wahyurini

involvement in various processes or tasks beyond planned maintenance, giving a holistic overview of their ownership responsibilities.
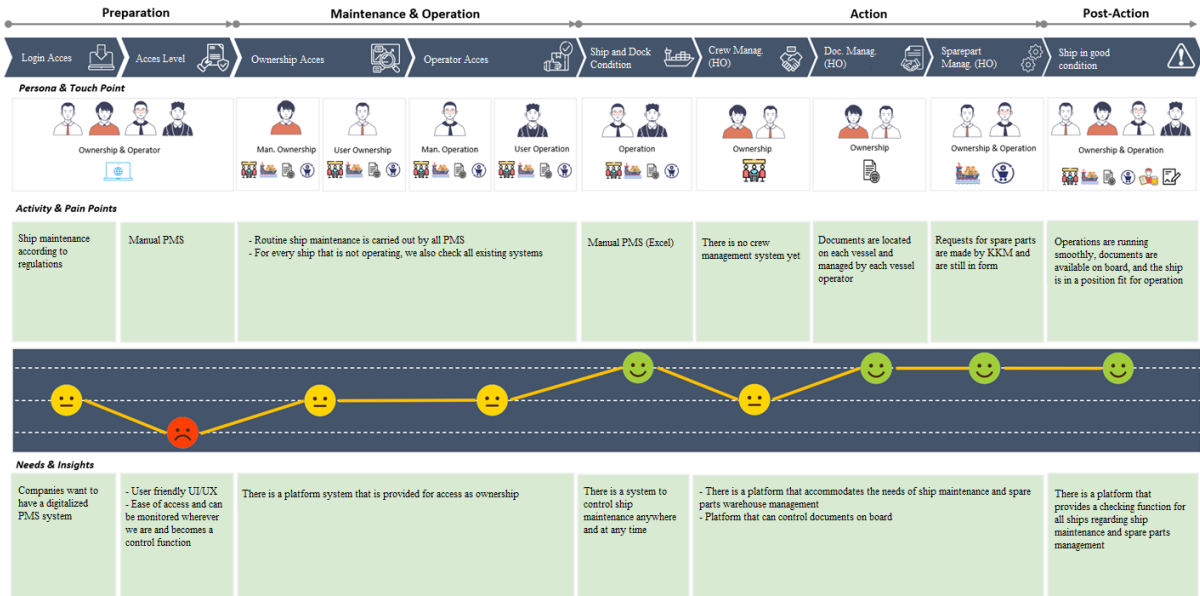

Figure 5 User Journey Map (Superintendent – Non PMS)

e.   Journey Map Tech. Operation (Ownership - Non-PMS)

This journey map pertains to the Technical Operator's role in ownership, but it's not focused on the Planned Maintenance System (Non-PMS). It may outline the stages and touchpoints related to technical operations outside the planned maintenance context, providing insights into the Technical Operator's broader ownership responsibilities.
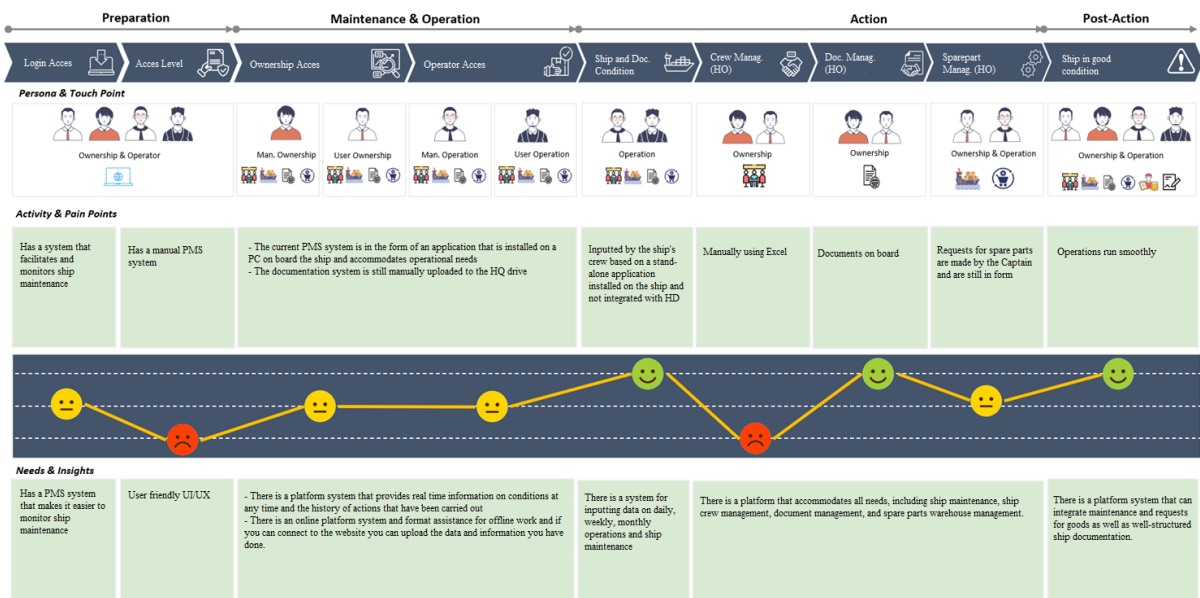

Figure 6 User Journey Map (Tech. Operation – Non PMS)

Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method
Bayu Mahardika Wicaksono, Emmy Pratiwi, Octaviyanti Dwi Wahyurini

B. DMMS Development Using Design Thinking

PT. Biro Klasifikasi Indonesia introduced a novel internal system that provides customers with convenient access to survey reports, statutory reports, survey and statutory certificates, and real-time statuses. This innovative system enhances transparency and efficiency in delivering crucial information to stakeholders.

The Digitalized Ship Maintenance Management System for external users underwent a comprehensive development process, resulting in various user-friendly web pages:

1. Manage User Page: This page displays all registered users and companies utilizing the system, facilitating easy user management.
2. Manage Fleet of Ships Page: Users can efficiently oversee and manage all fleet ships under company jurisdiction through this dedicated page.
3. Manage Documents Page: This page organizes and displays attached documents, categorized with metadata for easy navigation.
4. Manage Personnels Page: Companies can effectively categorize and manage personnel on each ship, enhancing human resource management.
5. Manage Warehouse Spare Parts Page: This page provides an overview of stock spare parts across the entire company or on a per-ship basis, streamlining inventory management.
6. Offline Upload System Page: This feature allows users to upload documents in an Excel format specified by the Digitalized Ship Maintenance Management System, ensuring flexibility in document submission.

The development sequence for the Digitalized Ship Maintenance Management System was structured to address specific problems and user needs systematically:

1. Document Integration Module: This module focuses on integrating the system with documents required by all potential users from the classification body.
2. Planned Maintenance System Module: Targeting users without existing ship maintenance applications, this module addresses planned maintenance needs.
3. Warehouse Spare Part Module: This module continues the development process by focusing on stock spare parts management.
4. Management Human Resources Module: Concluding the development cycle, this module specifically addresses personnel placement on ships.

The large-scale development timeline for the application was determined based on interviews, ensuring a comprehensive approach. However, the implementation of the Design Thinking method enables the Digitalized Ship Maintenance Management System to evolve per module, adapting to the complexity defined by user needs. This approach combines multiple problems to create holistic solutions before progressing to the development of subsequent modules.

1. Determination of 4 User Levels in DMMS Development

The application's schematic flow involves the integration of four key modules, each designed to address specific functionalities within the Digitalized Ship Maintenance Management System.
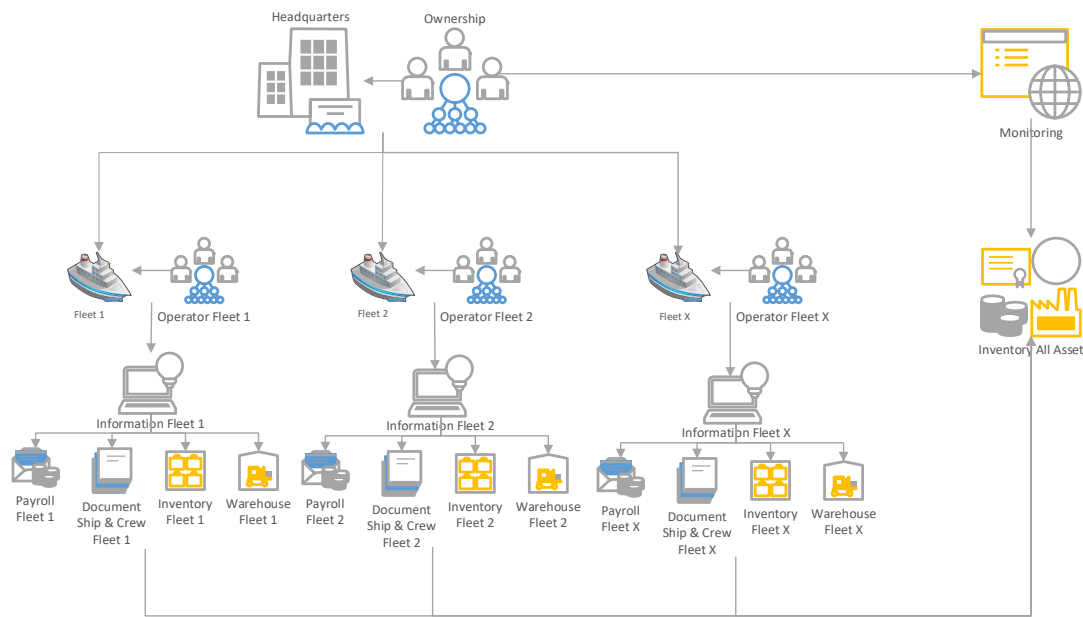
Figure 7 User Role Ownership & Operators

This graphic above presumably illustrates the roles and relationships within the Digitalized Ship Maintenance Management System. The depiction likely includes various components representing the users, their roles, and the flow of information and actions within the system. The term "User Role Ownership & Operators" suggests that the application has distinct roles assigned to different users. These roles are likely categorized based on their responsibilities and permissions within the system.

1. Ownership Management:
    This section pertains to the management level associated with ownership roles within the Digitalized Ship Maintenance Management System. Ownership Management likely includes users who have administrative control over the system, enabling them to configure settings, manage user access, and oversee the overall operation of the application.
2. Ownership User:
    Ownership User refers to individuals who hold ownership roles within the system but have a user-level access, meaning they can utilize the application for specific tasks and functions relevant to their ownership responsibilities.
3. Operator Management:
    Operator Management involves users responsible for overseeing and managing the operational aspects of the Digitalized Ship Maintenance Management System. These individuals may have administrative control over functionalities related to day-to-day operations.
4. Operator User:
    Operator User designates individuals with operational roles who use the application as end-users. They likely have access to specific features and functionalities required for their operational tasks but may not have administrative privileges.

The outlined sections provide a comprehensive overview of the user roles and access levels within the Digitalized Ship Maintenance Management System (Pinciroli et al., 2023) (ClassNk, 2013). The roles are categorized into ownership and operator levels, each further divided into management and user roles, ensuring a structured and controlled access environment based on the users' responsibilities and tasks.

2. User Feedback after Trying DMMS Prototype
Here's an explanation of the provided feedback after testing the accessible prototype at https://dmms.bki.co.id:

1. Menu PMS => Machinery Main Components - Add Scheduled Maintenance Date:
    Suggested enhancement to the "PMS => Machinery Main Components" menu by including a scheduled maintenance date. This addition aims to provide a clearer overview of when maintenance tasks are planned for each machinery main component.

2. Menu PMS => Machinery Main Components - Add Work Order Menu:
    Proposed inclusion of a "Work Order" menu within "PMS => Machinery Main Components." This addition is aimed at streamlining the order process, allowing users to place orders more conveniently without navigating through each component individually.
3. Notification Enhancements:
    Suggested improvements to notifications by adding a feature that notifies users about jobs approaching overdue status. The notification would vary based on the type and category of components. A yellow warning could indicate an approaching overdue status (e.g., one week prior), while a red warning could signify imminent overdue status.
4. Dashboard Displaying Work Done in the Last 7 Days:
    Recommended the creation of a dashboard that showcases tasks and maintenance activities completed within the last seven days. This feature aims to provide a quick and efficient summary of recent activities.
5. Home Menu with Icon Shortcuts for Electronic/Website Product Services:
    Proposed the addition of icons to the "Home" menu, serving as shortcuts for accessing product and service offerings via electronic means or the website.
6. Enhancements to Fleet Menu:
    Expanded the "Fleet" menu to include several directories:
    a. Particulars of Ships
    b. Survey History
    c. Current status of DOC, SMC, ISSC, and MLC
    d. Download Survey Status & E-Certificate
7. Document Menu with Survey Reminders:
    Augmented the "Document" menu by incorporating reminders for surveys 1 and 2, sent to the designated Person in Charge at PT. BKI's customer locations where their emails have been registered.
8. Warehouse Menu Enhancements:
    Strengthened the "Warehouse" menu with the following features:
    a. Requisition for SPARES & STORES and breakdown of SPARES by category for each type of machinery.
    b. Added menus for PURCHASE ORDER and RECEIVING REPORT.
    c. Provided visibility into warehouse stock, both on ships and in storage facilities.
9. These proposed enhancements aim to improve the overall user experience, streamline workflows, and ensure effective management of ship maintenance processes within the Digitalized Ship Maintenance Management System.

V. CONCLUSION

The current Digitalized Ship Maintenance Management System (DSMMS) application serves as a comprehensive repository for all data-related tasks for both ownership and operators. The four main modules, including Planned Maintenance System, Human Resource, Document Integration, and Warehouse Stock Spare Part, primarily store data. They also provide simple alerts for upcoming deadlines, prioritizing information in the monitoring system. However, the application falls short of being a decision-making tool or an analytical platform for guiding ship maintenance and other modules.

The current state of the Digitalized Ship Maintenance Management System (DMMS) reflects its capacity to store comprehensive data that ownership and operators need. However, the four main application modules, namely the Planned Maintenance System, Human Resource, Document Integration, and Warehouse Stock Spare Part, primarily serve as data repositories. While the system provides basic warnings on upcoming deadlines, it falls short in enabling decision-making and data analysis for effective ship maintenance.

User interviews emphasize the importance of prioritizing the development of the Document Integration module over the Warehouse Stock Spare Part module. User perspective diversity is crucial in problem-solving, and empathy plays a pivotal role in understanding their varying viewpoints. Design Thinking, a multi-stage approach involving empathizing, defining, ideating, prototyping, and testing, can guide the development process effectively.

In the empathize stage, detailed exploration of user complaints is essential to determine solutions accurately. Tools like empathy maps help comprehend user needs and desires. The define stage requires careful evaluation to decide which modules should be developed immediately and which can be deferred based on long-term company needs.

Digitalized Ship Maintenance Management System Website Application Innovation Strategy Using Design Thinking Method
Bayu Mahardika Wicaksono, Emmy Pratiwi, Octaviyanti Dwi Wahyurini

Ideation and prototyping stages are crucial for transforming defined ideas into practical solutions. These stages involve creating prototypes aligned with user-defined problems and needs. The testing stage ensures that the developed application meets user requirements. Design Thinking, with its convergent and divergent thinking concepts, provides clarity in each stage of the process.

DMMS, with its main modules such as Planned Maintenance System (PMS), Human Resource (HR), Document Integration, and Warehouse Spare Part, can benefit significantly from the Design Thinking approach. Empathetic understanding, accurate definition, and creative ideation contribute to the creation of prototypes that address user needs effectively.

The use of empathy maps in the empathize stage, careful assessment in the define stage, and efficient ideation and prototyping contribute to the creation of a user-centric product. The testing stage ensures that the application aligns with user requirements. By leveraging Design Thinking and appropriate tools, DMMS development can be conducted efficiently and effectively, providing tangible value to the company by enhancing operational processes through digital transformation.

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The Effect of Resource Based View Strategy, Entrepreneurial Orientation and Innovation on Competitive Advantage in the Canteen of Universitas 17 Agustus 1945 Surabaya

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ABSTRACT

Purpose: This study aimed to test and analyze the effect of resource based view strategy, entrepreneurial orientation and innovation on competitive advantage in the canteen of Universitas 17 Agustus 1945 Surabaya.

Design/methodology/approach: The saturated sample approach was applied, and as many as 44 samples or 22 canteens were acquired. SEM PLS is the analysis approach used in this study.

Findings: The study's conclusions indicated that the resource based view strategy affects competitive advantage. The influence of both entrepreneurial orientation and innovation on competitive advantage has been found.

Implications: The implication of this research was that business actors at the canteen of Universitas 17 Agustus 1945 Surabaya could improve the resource based view strategy, entrepreneurial orientation and innovation to increase competitive advantage; and the results of this study could complement to the study of factors that can be used to increase competitive advantage for business actors in the canteen of Universitas 17 Agustus 1945 Surabaya.

Paper type: Research paper

Keyword: Competitive Advantage, Entrepreneurial Orientation, Innovation, Resource Based View, Strategy

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I. INTRODUCTION

Business actors who are just starting out or managing a business need to have a fundamental understanding of entrepreneurship (Audretsch & Fiedler, 2023). Since it will be the motivation behind a business actor's achievement of success in the marketplace. A company's ability to grow and develop is one of its most essential aspects. Every business actor attempts to develop, preserve, and enhance their business (Andjarwati, 2020; Farida & Setiawan, 2022). Additionally, business actors deal directly with a variety of consumers, each of whom has different needs and objectives. To prevail in the competition, business actors must make creative and proactive use of their resources (Brege & Kindström, 2020). Long-term success also mostly depends on having a competitive advantage, which requires organizations to create innovative and effective strategies (Desfitrina et al., 2019; Farida & Setiawan, 2022). Along with the increasingly fierce competition, business actors must have strong enough competitiveness to be able to continue to compete with other business actors, especially similar businesses (Hacklin et al., 2018). Therefore, business actors in the canteen of Universitas 17 Agustus 1945 Surabaya need to have a competitive advantage. Resource based view strategy, entrepreneurial orientation and innovation can all be employed as strategies to gain a competitive advantage. According to a case study conducted at the canteen of Universitas 17 Agustus 1945 Surabaya, entrepreneurs tend to be less creative when starting new ventures and are not yet conscious of how crucial strategies are to gain an advantage in competition. It is evident

Page | 1229

The Effect of Resource Based View Strategy, Entrepreneurial Orientation and Innovation on Competitive Advantage in the Canteen of Universitas 17 Agustus 1945 Surabaya

Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]

that the normal business person in the canteen of Universitas 17 Agustus 1945 Surabaya is offering the same product for sale.

One of the essential strategies for gaining a competitive advantage is resource based view (Mehta & Tariq, 2020). This resource includes human resources, physical assets and customer relationships that can provide sustainable competitive advantage (Barney et al., 2001). Furthermore, entrepreneurial orientation is as essential as the resource based view (Yin et al., 2021). In the entrepreneurial process, entrepreneurial orientation is needed because it can determine the direction of the business that has been pioneered (Manik & Kusuma, 2021). An important aspect of developing a competitive advantage in business management is entrepreneurial orientation. Entrepreneurial-oriented business people tend to be more innovative, proactive, and able at seeing opportunities that arise (Sutanto et al., 2021). The actors must be brave in taking risks, utilizing available resources, and being able to make the best use of opportunities for the continuity of their business to compete (Herlinawati et al., 2019).

Achieving competitive advantage requires innovation in running a business (Krylova & Shaposhnykov, 2020). Entrepreneurs who can generate new ideas, innovative services and develop products, and adopt the latest practices in business operations have a better opportunity to win the competition in the ever-changing global market (Farida & Setiawan, 2022). Innovation in product distinctiveness will lead to a temporary increase in competitiveness (Fatonah & Haryanto, 2022). According to Lestari et al. (2020), even innovations created by companies are the key to competitive advantage that determines the economic success of an organization. A business will be able to survive so that by having a competitive advantage in measuring its success, existing business competitiveness supports business performance including marketing performance of a business (Farida & Setiawan, 2022).

This research is expected to provide deeper insights into how organizations can leverage their internal resource capabilities, adopt an effective entrepreneurial orientation, and drive innovation to achieve sustainable competitive advantage amidst inter-market competition. Thus, this research has the potential to make a significant contribution to the development of management theory and provide practical guidance for business actors in designing effective strategies to deal with future business challenges.

A. Literature Review
1. Resource based view

Barney et al. (2001) states that the resource based view, an organizational strategy approach, holds that an organization is a collection of material and immaterial assets, resources, and competences that are hard for competitors in the market to imitate. This resource is thought to provide a competitive advantage. According to the resource based view theory, an organization needs resources that are valuable, uncommon, unique, inimitable, and different from others to have a long-term competitive advantage (D'Oria et al., 2021). As stated by Barney et al. (2001), a company's potential to remain sustainable or achieve excellence depends on its managerial capabilities and resources, as well as the strategies used to maximize these resources in response to business challenges and opportunities. As a result, developing and managing a company's resources is essential for formulating and determining the most appropriate competitive strategies for obtaining a competitive advantage (Farida & Setiawan, 2022).

The explanation provided above leads one to the conclusion that the resource based view is a viewpoint that acknowledges the variety of possibilities that a business possesses to obtain a competitive advantage. Increasing competitive advantage through efficient utilization of resources and business capabilities is the goal of resource based view strategy (D'Oria et al., 2021; Farida & Setiawan, 2022; Mehta & Tariq, 2020).

Grant (1991) stated several factors that can be used to identify resource based view strategies. These factors are durability, transparency and transferability. Durability is an ability of a product that is produced by a company to remain in good quality after it has been manufactured. Transparency describes level of openness of every resource involved in the company's operations. Finally, transferability means ease of communicating and moving everything involved in the production process from one location to another.

2. Entrepreneurial orientation

According to Solikahan & Mohammad (2019), entrepreneurial orientation refers to processes, practices, and decision making that encourage new directions and have three aspects of entrepreneurship, which are always innovative, act proactively and take risks. A business person who applies an entrepreneurial approach in planning his company's development strategy will focus more on meeting customer satisfaction (Tuominen et al., 2023). In addition, they will continue to monitor the extent to which their products can meet or even exceed customer expectations.

In line with Manik & Kusuma (2021), an organization's entrepreneurial orientation signifies its capacity to identify and benefit on unexplored opportunities. The concept of "entrepreneurial orientation" describes a range of elements, including procedures, methods, decision-making approaches, and business plans that support gaining a competitive advantage and exhibiting exceptional performance (Arabeche et al., 2022). Entrepreneurial

Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]

orientation is the capacity to apply creativity and innovation to business to maximize resources and achieve success that adds value for both the individual and others (Oktavio et al., 2019).

According to Lumpkin & Dess (1996), entrepreneurial orientation has the indicators, such as innovative, proactive, and dare to take risks. Innovative describes the tendency to engage in creativity and experimentation through the introduction of new products or services, as well as technological leadership through research and development, especially in micro, small, and medium enterprises (MSMEs). Proactive reflects being forward looking, taking initiative by anticipating and exploring new opportunities, and actively participating in developing markets. Dare to take risks is taking decisive action by exploring the unknown, especially in the allocation of significant resources for business in uncertain environments.

3. Innovation

Innovation is a concept that is intriguing and developable, purposefully made for development, and interesting strategies (Najafi-Tavani et al., 2018). Innovation needs to be continuously conducted and improved upon to compete with other businesses (Fernández-Portillo et al., 2022). Innovation means adding value, which is essential to running a successful business and can give a competitive advantage, requiring quality products (Fatonah & Haryanto, 2022).

Innovation is an alteration in relevant data with the intention of enhancing or improving current resources (Knudsen et al., 2023). This is accomplished by adding new and distinctive features to the product to increase its value. The innovation process also involves the transformation of materials into resources and the incorporation of those resources into new innovations or more productive product specifications (Makkonen, 2021). This process can be influenced by the certainty of profit and loss or the time process of implementation, with the aim of gaining a competitive advantage. Innovation generates new ideas and obtain a competitive advantage (Distanont & Khongmalai, 2020). Innovation in products has three dimensions: line expansion or offering a greater range of products from the company so that customers could more easily find what they're seeking for; new products, that is, products made by the company but not brand-new to the marketplace; and completely new products, or goods that are distinctive to the company and the market (Farida & Setiawan, 2022).

4. Competitive advantage

Competitive advantage is the ability to do something so well that one outperforms competitors (Islami et al., 2020). It means that having a competitive advantage is knowing how to do something better than your competitors. According to Fahlefi & Indriani (2021), a competitive advantage can be gained by putting a value creation strategy implemented that differs from the strategies used by current and potential competitors. To achieve a competitive advantage, Islami et al. (2020) stated that businesses need to be able differentiate themselves beyond the competition with products that possess distinctive qualities that draw in customers and elevate them to the status of special products. A company's competitive advantage is its ability to outperform its competitors by establishing unique advantages that are challenging for rivals to imitate, particularly in the context of today's increasingly widespread business globalization (Farida & Setiawan, 2022). Susanti et al. (2023) defined competitive advantage as a factor of MSME actors that sets them distinct from their competitors, gives them a unique position in the market, and elevates them. Therefore, it can be said that a company's ability to establish a favourable reputation for its products in comparison to those of other companies gives it a competitive advantage.

Competitive advantage can be determined using three dimensions (Diab, 2014). The first dimension is product uniqueness. An innovation that initiates the company's product distinctively from that of its competitors or from other widely available products on the market. It involves coming up with a creative idea that creates a unique offering to attract customers. The second dimension is product quality. Product quality reflects the quality of the products produced by the company, which includes selecting premium raw materials to make products that are higher quality than those of competitors. Lastly, the third dimension is competitive price. The capacity of the business to manufacture goods at market-competitive pricing. To maintain affordability and avoid burdening customers, companies that produce high-quality and unique products must also determine their prices based on the purchasing capacity of their target market.

Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]
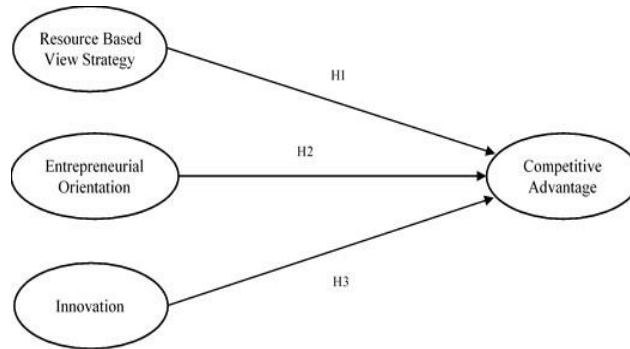
5. Research framework and hypotheses

Figure 1 - Research Framework

Notes: H1: Research based view has an effect on competitive advantage; H2: Entrepreneurial orientation has an effect on competitive advantage; H3: Innovation has an effect on competitive advantage

II. METHODS

This research used quantitative research methods. Research was conducted on businesspeople at the canteen of Universitas 17 Agustus 1945 Surabaya. The study was carried out in June till August of 2023. Researchers employ questionnaire distribution and observation as methods for gathering primary data. Secondary data can be obtained from various sources such as books, journals, and others. Saturated sample withdrawal is utilized in this research, and samples from all populations are collected. Data analysis techniques in this study using Partial Least Square (PLS). PLS is a Structural Equation Modelling (SEM) with a variance-based or component-based structural equation modelling approach.

III. RESULTS AND DISCUSSION

A. Outer model test

Based on the data listed in Table 1, it can be concluded that each indicator of the research variable has a valid loading factor value because its outer loading value exceeds 0.7.

Table 1 - Outer Loading

Items	Outer loadings
X1.1 <- Resource Based View	0.879
X1.2 <- Resource Based View	0.757
X2.1 <- Entrepreneurial Orientation	0.904
X2.2 <- Entrepreneurial Orientation	0.804
X2.3 <- Entrepreneurial Orientation	0.840
X3.1 <- Innovation	0.744
X3.2 <- Innovation	0.938

Items	Outer loadings
X3.3 <- Innovation	0.897
Y1.1 <- Competitive Advantage	0.910
Y1.2 <- Competitive Advantage	0.935
Y1.3 <- Competitive Advantage	0.937

Source: Data processed by Smart-PLS

From the data presented in Table 2, it can be concluded that each indicator on the research variables has the highest cross loading value on the variables that form it compared to the cross-loading value on other variables.

Table 2 - Cross Loading

Items	Innovation	Competitive Advantage	Entrepreneurial Orientation	Resource Based View
X1.1 <- Resource Based View	0.515	0.626	-0.275	0.879
X1.2 <- Resource Based View	0.412	0.456	-0.017	0.757
X2.1 <- Entrepreneurial Orientation	0.064	-0.256	0.904	-0.211
X2.2 <- Entrepreneurial Orientation	0.067	-0.118	0.804	-0.072
X2.3 <- Entrepreneurial Orientation	0.013	-0.170	0.840	-0.187
X3.1 <- Innovation	0.744	0.592	-0.021	0.367
X3.2 <- Innovation	0.938	0.833	0.000	0.627
X3.3 <- Innovation	0.897	0.708	0.166	0.451
Y1.1 <- Competitive Advantage	0.789	0.910	-0.075	0.558
Y1.2 <- Competitive Advantage	0.827	0.935	-0.215	0.654
Y1.3 <- Competitive Advantage	0.695	0.937	-0.350	0.648

Source: Data processed by Smart-PLS

From the information listed in Table 3, it can be concluded that the Average Variance Extracted (AVE) value of all variables is more than 0.5. This shows that each variable has good discriminant validity.

The Effect of Resource Based View Strategy, Entrepreneurial Orientation and Innovation on Competitive Advantage in the Canteen of Universitas 17 Agustus 1945 Surabaya

Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]

Table 3 - Average Variance Extracted

Variables	Average Variance Extracted (AVE)
Innovation	0.746
Competitive Advantage	0.860
Entrepreneurial Orientation	0.723
Resource Based View	0.673

Source: Data processed by Smart-PLS

From the data presented in Table 4, it can be identified that the composite reliability of all research variables exceeds 0.6. This indicates that all variables have a high level of reliability.

Table 4 - Composite Reliability

Variables	Composite Reliability
Innovation	0.897
Competitive Advantage	0.949
Entrepreneurial Orientation	0.886
Resource Based View	0.804

Source: Data processed by Smart-PLS

All research variables have Cronbach's alpha values greater than 0.7, according to the data in Table 5. This suggests that there is a high level of reliability for every variable.

Table 5 - Cronbach's Alpha

Variables	Cronbach's Alpha
Innovation	0.826
Competitive Advantage	0.919
Entrepreneurial Orientation	0.820
Resource Based View	0.723

Source: Data processed by Smart-PLS

B. Inner model test
Based on the inner model scheme illustrated in Figure 2, it can be explained that all variables have a positive path coefficient. This can be interpreted as an indication that the higher the path coefficient value in a relationship between variables, the greater the influence of the exogenous variables on the endogenous variables.
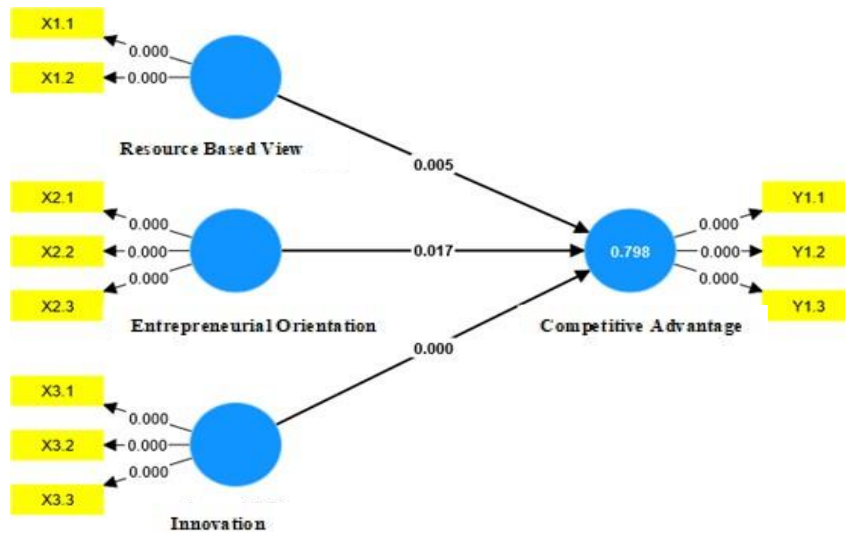
Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]

Figure 2 – Inner Model

It is obvious from the data in Table 6 that the competitive advantage variable has an R-Square value of 0.798. This indicates that the percentage of competitive advantage that can be explained by resource based view, entrepreneurial orientation, and innovation is about 79.8%.

Table 6 - R-Square

	R-square
Competitive Advantage	*0.798*

Source: Data processed by Smart-PLS

Table 7 – Hypotheses Test

Hypotheses	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Notes
Resource Based View → Competitive Advantage	*0.211*	*0.194*	*0.075*	*2.794*	*0.005*	*Supported*
Entrepreneurial Orientation → Competitive Advantage	*-0.230*	*-0.214*	*0.096*	*2.394*	*0.017*	*Supported*
Innovation → Competitive Advantage	*0.725*	*0.735*	*0.073*	*9.970*	*0.000*	*Supported*

Source: Data processed by Smart-PLS

C. Discussion
1. Resource based view has a significant effect on competitive advantage

It is obvious from Table 7 that the P-Values value is 0.005, which is less significant than the 0.05 threshold. This indicates that the hypothesis is significant and accepted. This means that resource-based view has a significant effect on competitive advantage. Resource Based View activities may assist achieve competitive advantage in terms of cost, quality, time, and flexibility. This states that the higher the resource-based view, the higher the competitive advantage.

The Effect of Resource Based View Strategy, Entrepreneurial Orientation and Innovation on Competitive Advantage in the Canteen of Universitas 17 Agustus 1945 Surabaya

Tri Andjarwati[1]*, Adrie Oktavio[2]*, Thomas Stefanus Kaihatu[3], Agustinus Nugroho[2]

2. Entrepreneurial orientation has a significant effect on competitive advantage

It is evident from Table 7 that the P-Values value is 0.017, which is less significant than the 0.05 threshold. This indicates that the hypothesis is significant and accepted. This means a competitive advantage is significantly impacted by entrepreneurial orientation. This implies that the canteen of Universitas 17 Agustus 1945 Surabaya will be able to compete more successfully if it uses an entrepreneurial orientation in entrepreneurship. This states that the higher the entrepreneurial orientation, the higher the competitive advantage.

3. Innovation has a significant effect on competitive advantage

From the Table 7 above, the P-Values value is 0.000, which is below the 0.05 significance value. This means that this hypothesis is significant and accepted. This indicates that competitive advantage is significantly impacted by innovation. In conclusion, businesses with unique and distinctive products will be successful in the marketplace because of innovation.

V. CONCLUSION

This research found that resource based view has a significant effect on competitive advantage in the canteen of Universitas 17 Agustus 1945 Surabaya. Entrepreneurial Orientation has also a significant effect on competitive advantage in the canteen of Universitas 17 Agustus 1945 Surabaya. Finally, innovation has a significant effect on competitive advantage in the canteen of Universitas 17 Agustus 1945 Surabaya. To effectively compete and enhance their business performance, business actors in the canteen of Universitas 17 Agustus 1945 Surabaya can use the study's findings as guidance when designing and putting into practice their business strategies. Following that, other variables that can affect competitive advantage require being included by researchers, such as utility variables using the marginal utility approach and motivation to adopt the ability, motivation, and opportunity (AMO) theory.

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The Effect of Resource Based View Strategy, Entrepreneurial Orientation and Innovation on Competitive Advantage in the Canteen of Universitas 17 Agustus 1945 Surabaya

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