

The influence of intellectual capital and woman on boards on financial distress in consumer cyclical companies on the Indonesian Stock Exchange in 2021-2023

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Abstract

Financial distress is a condition of declining financial performance accompanied by an inability to meet obligations. This research was conducted to determine the influence of intellectual capital, woman on board of commissioners, and woman on board of directors on financial distress in consumer cyclical companies listed on the Indonesia Stock Exchange from 2021 to 2023. This research also includes control variables such as firm size and leverage which are used to minimise the potential impact of other variables that influence financial distress. The sampling technique used purposive sampling and only 112 consumer cyclical companies met the criteria to be included in the sample. The data obtained was then analysed using logistic regression analysis with IBM SPSS 25 as the analysis tool. The result of this research shows that intellectual capital has a negative influence on financial distress. Meanwhile, woman on board of commissioners and woman on board of directors have no effect on financial distress. This influence makes high intellectual capital, which is an implication of a company's success in managing its resources, especially intangible resources which can reduce the potential for financial distress. To maintain a healthy condition and avoid financial difficulties, companies must consistently innovate in creating adaptation strategies and optimising resources to gain a competitive advantage over their competitors.

Keywords:

control variable; financial distress; intellectual capital; woman on board of commissioners; woman on board of directors

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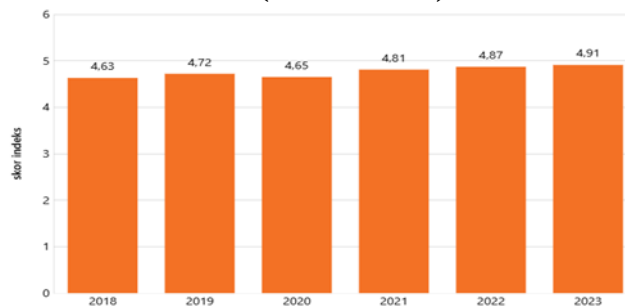
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INTRODUCTION

The extensive influence of globalization has led to increasingly fierce business competition (Larasati & Wahyudin, 2019). Increased mobility, amount, and quality of science and technology have led to rapid changes in the business world (Ambarwati et al., 2017). The swift growth of the business world in the era of globalization is reflected in the increasing of new enterprise (Saputri & Asrori, 2019). The increasingly fierce competition, forces companies to continuously strengthen their management fundamentals, so that they will be able to compete with competitors (Kuncoro & Agustina, 2017). The inability to predict global developments by strengthening management fundamentals could potentially lead to a decline in business volume resulting in the company's bankruptcy (Meiliawati & Isharijadi, 2016).

Komisi Pengawas Persaingan Usaha (KPPU) together with Center For Economics and Development Studies Universitas Padjajaran (CEDS UNDIP) recorded an increase in business competition in Indonesia over several periods. Through the calculation of the business competition index, it shows fluctuations in figures with an increasing trend reaching 4,91 in 2023, which is a new record since the first calculation (Ahdiat, 2024).



Source: databoks.katadata.co.id

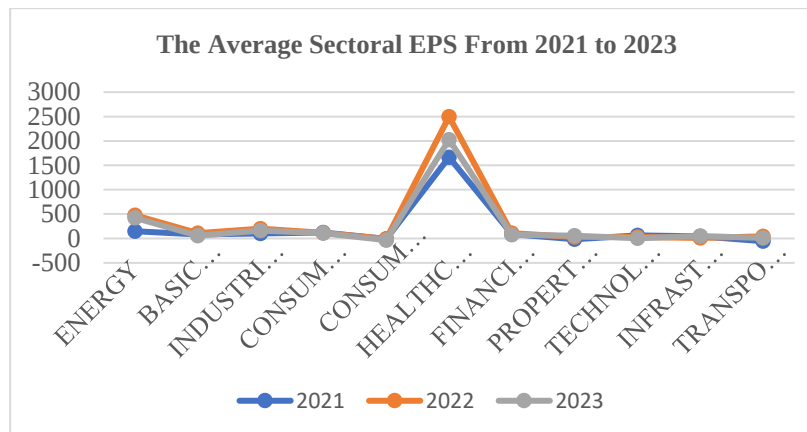
Figure 1 Indonesian Business Competitiveness Index

On the other hand, fierce competition does not guarantee that the business will always experience positive growth, there are times when companies also experience financial distress (Antikasari & Djuminah, 2017). Thus, the responsibilities of company managers is crucial in predicting financial distress in order to avoid bankruptcy (Nazaruddin & Daulay, 2019).

Financial distress refers to a decline in financial condition prior to bankruptcy (Putri & Naibaho, 2022). On the other hand, according to Putri & Aminah (2019), Financial distress refer to a company's financial difficulties in the form of declining profits and an inability to pay off debts and liabilities, which are represented in financial statements by comparing them with financial statements from the previous period. Predicting financial distress is considered important in order to prevent the risk of bankruptcy early on (Yudiawati & Indriani, 2016). A company is considered to be in financial distress when it

records negative earnings per share in the long term (Elloumi & Gueyié, 2001).

In 2021, the Indonesia Stock Exchange officially launched the IDX-IC classification as a new industry sector that classifies issuers into 12 sectors, 35 sub-sectors, 69 industries, and 130 sub-industries to replace JASICA which has been in use since 1996, and only had 9 sectors and 56 derivative sub-sectors (Sidik, 2021). In line with this statement, the average EPS graph in accordance for the years 2021-2023 IDX-IC standard is shown below:



Source: IDX Statistics

Figure 2 Sectoral Average EPS 2021-2023

Figure 1 shows that the consumer cyclicals sector is the only sector of companies that recorded negative values and consistently experienced a significant decline over three consecutive years in the EPS values among all sectors of companies listed on the IDX for the 2021-2023 period, with a drastic decline of -34,5 occurring in 2023. This negative EPS reflection is not without reason. However according to Mulyana (2023), the consumer cyclicals sector is in the spotlight due to its negative sectoral movement and potential to dominate the papan pemantauan khusus IDX, which is used to strengthen investor protection. Based on the classification results, there are 153 stocks filtered by the IDX and dominated by consumer cyclicals issuers. This condition was also supported throughout the 2022 period, with the IDX consumer cyclicals sector recording a decline of 5,50% and year to date still in the red until trading on friday at the beginning of 2023 specifically on February 17, with a recorded figure of 0,76%.

IDX-IC divides the consumer goods industry into two sectors, one of which is the consumer cyclicals sector, which refers to the non-primary consumer goods sector category with characteristics of product and service demand that are proportional in the same direction to economic growth (Paramaratri et al., 2023). Based on the phenomena described above, the consumer cyclicals sector was chosen as the focus of this study to predict financial distress, using various variables as the focus of the study. Furthermore, the author plans to conduct research related to “THE INFLUENCE OF INTELLECTUAL CAPITAL AND WOMAN ON BOARDS ON FINANCIAL DISTRESS IN CONSUMER CYCLICALS COMPANIES”.

Previous research measuring the impact of intellectual capital and woman on boards on financial distress also considered the use of control variables (Alhaddad et al., 2024; Guizani & Abdalkrim, 2023; Muthia et al., 2024; Pradana & Chalid, 2023). Referring to previous research, this research also includes control variables such as firm size and leverage, that has an influence on financial distress. The use of these control variables is intended to minimize the impact of other factors that could potentially influence the dependent variable (García & Herrero, 2021).

LITERATURE REVIEW

Resource Based View (RBV)

Resource Based View represents the company's resources in the form of tangible and intangible assets that have been internalized as the main drivers of competitiveness and company performance, which are then utilized effectively with the aim of implementing competitive and profitable strategies (Belkaoui, 2003). RBV theory emphasizes the existence of unique resources and skills belonging to the company that refer to all assets, capabilities, company workflows, characteristics, information, and knowledge when managed and developed effectively, these can potentially become the foundation of competitive advantage (Wartini et al., 2024). Referring to the Resource Based View perspective, identifying and effectively managing company resources including intellectual capital, will have a significant impact on company performance (Pradana & Chalid, 2023).

Agency Theory

According to Jensen & Meckling (1976), agency theory refers to a contractual in which one or more parties act as principals and appoint other individuals as agents to carry out tasks by delegating some decision-making authority to the agents. Agency theory is linked to agency costs associated with misalignment of objectives between managers and shareholders (Ain et al., 2020). A company that has marketed its shares to the public will cause agency problems within the company (Astuti & Aryani, 2017). Agency problems arise when the interests of the principal and agent are not aligned, accompanied by the principal not having sufficient information to accurately observe the agent's behavior (Kalbuana et al., 2022). Agency theory structure supports the benefits of woman depiction on boards (Benkraiem et al., 2017).

Financial Distress

According to Putri & Naibaho (2022) financial distress refers to a decline in financial condition prior to bankruptcy. According to Kristanti & Pancawitri (2024), in measuring financial distress the Earnings per Share (EPS) calculation model can be used. The reflection of a company's financial distress is seen through negative EPS values for two or more consecutive years conversely, a company's tendency to be in a healthy condition is reflected by the absence of consecutive negative EPS values for two or more years (Cahyani & Diantini, 2016). The calculation of EPS according to Astuti et al. (2021) is as follows:

$$EPS = \frac{\text{Net Profit}}{\text{Number of Common Shares Outstanding}}$$

The classification of financial distress in this study uses a nominal scale with variables defined as dummy variables, assigning a value of (1) to companies experiencing financial distress and (0) to companies not experiencing financial distress.

Influence of intellectual capital on financial distress

Stewart (1997) explains that intellectual capital is an intellectual component in the form of knowledge, information, intellectual property rights, and experience that is implemented to create prosperity. On the other hand, according to Duff (2018) Intellectual capital represents a company's insight resources or intangible assets. Intellectual capital is assessed by strategically utilizing intangible resources as a means of generate value in achieving competitive advantage by involving components of human capital, relational capital, and structural capital (Lee & Wang, 2023). The creation of value added has a positive impact on improving company performance (Dariati et al., 2023). In this study, intellectual capital is measured using the VAIC (Value Added Intellectual Coefficient) calculation method. According to Pulic, (2000), the VAIC measurement model has the following calculation formula:

$$VAIC^{TM} = \frac{VA}{CE} + \frac{VA}{HC} + \frac{SC}{VA}$$

Intellectual capital is based on RBV theory, whereby more efficient intellectual capital management can improve performance as reflected in optimal productivity, thereby generating greater returns for the company (Naovila & Wahyudin, 2015). Improved performance puts the company in a healthy position, making it possible to avoid financial distress (Widhiadnyana & Ratnadi, 2019). Muarifatin & Setiawati (2023) proved that intellectual capital has a positive influence on financial distress. The research by Winata & Budiasih (2022) reflects the results that intellectual capital has a negative influence on financial distress. This influence is inversely proportional to Dirman (2021), who indicated that intellectual capital has no effect on financial distress.

H1: Intellectual capital influence on financial distress in consumer cyclical sector companies.

Influence woman on board of commissioners on financial distress

Ideally corporate governance systems necessitate companies to establish a board of commissioners whose main task is to supervises management activities and assure that shareholders' interests are taken into account in strategic decision-making processes (Butar, 2019). Agency theory explains that managers tend to be opportunistic and self-interested, and if left unchecked, managers will prioritize their own interests to the detriment of shareholders (Jusup & Sambuaga, 2022). In line with agency theory, woman board of commissioners emerge as supervisor within the company (Diono & Prabowo, 2017). Woman as board members commissioners have superior ethical values and are able to strengthen the

supervisory role of the board, thereby minimizing the negative impact of agency costs on financial performance (Wijaya, 2021). As well as, woman on board of commissioners are able to show actions that are fairer than men, so they are able to enforce stricter rules in an effort to improve managerial supervision (Soebyakto et al., 2018). This consideration is supported, that woman tend to be more cautious and risk-averse than men when making decisions (Nuswantara et al., 2023). According to Kalbuana et al. (2022), the measurement of woman on board of commissioners can be calculated using the following formula:

$$WOMC = \frac{\text{Total of Female Members of The Board of Commissioners}}{\text{Total of Members of The Board of Commissioners}}$$

This is in line with agency theory, which presents evidence that woman on boards of commissioners and woman on boards of directors improve oversight with the aim of reducing financial distress (Muthia et al., 2024). Research conducted by Nuswantara et al. (2023) and Sari & Setiawan (2024) indicates significant positive influence findings shown by woman on board of commissioners on financial distress. However, this significant influence is inversely proportional to the research conducted by Kalbuana et al. (2022), which found that there is no influence of woman on board of commissioners on financial distress.

H2: Woman on board of commissioners influence on financial distress in consumer cyclical sector companies.

Influence woman on board of directors on financial distress

Woman on board of directors are considered to play a role as a governance tool that can enhance the quality of governance, transparency, supervision, and provide protection for the rights of shareholders (Guizani & Abdalkrim, 2023). Agency theory structure supports the benefits of woman depiction on boards (Benkraiem et al., 2017). A board of directors with gender diversity leads to a decrease in agency costs for the company due to economic benefits, decision-making abilities, instructional skills, strategic orientation, and a tendency to support the interests of shareholders by solving agency problems presented by woman (Ain et al., 2020). The role of woman on board of directors is expected to provide a positive outlook for business partners and employees, as well as improve company performance and capable to reduce the probability of financial distress (Kristanti & Isnuwardhana, 2018). According to Nuswantara et al. (2023), the measurement of woman on boards of directors can use the following formula:

$$WOMD = \frac{\text{Total of Female Members of The Board of Directors}}{\text{Total of Members of The Board of Directors}}$$

Research by Kalbuana et al. (2022) provides significant findings showing the positive influence of woman on board of directors on financial distress. On the other results found in the study by Sari & Setiawan (2024) differ, reflecting that woman on the board of directors have no effect on financial distress.

H3: Woman on board of directors influence on financial distress in consumer cyclical sector companies.

Control Variable

Firm Size

The use of firm size as a control variable affecting financial distress refers to previous research (Alhaddad et al., 2024; Guizani & Abdalkrim, 2023; Jia & Li, 2022; Muthia et al., 2024). Firm size represents the size of the company being evaluated using several calculation models, including total assets (Fauziah & Murharsito, 2021). According to Sumunar & Djakman (2020), the firm size control variable can be calculated based on the natural logarithm of total assets. The calculation formula is as follows:

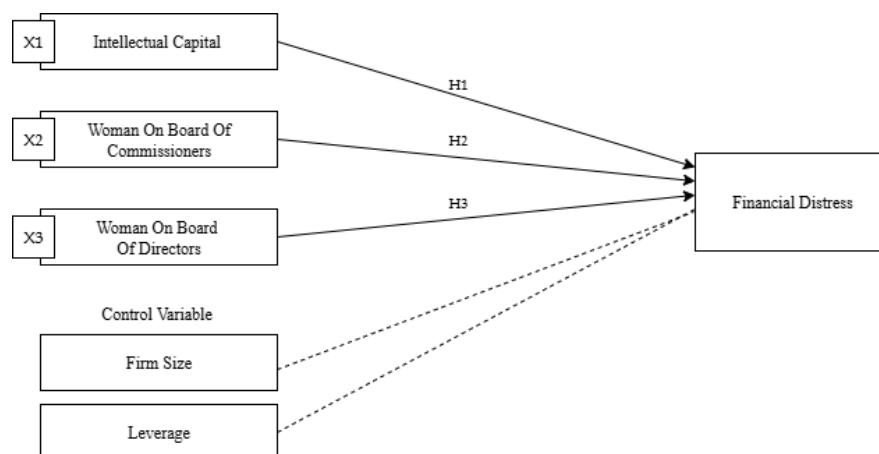
Firm size = $\ln(\text{Total Assets})$

Leverage

Leverage describes the degree to which a company uses debt to finance its operational activities (Giarto & Fachrurrozie, 2020). The use of leverage as a control variable refers to previous research (Alhaddad et al., 2024; Guizani & Abdalkrim, 2023; Muthia et al., 2024) shows the positive effect of the leverage control variable on financial distress. According to Pradana & Chalid (2023), leverage control variable is calculated as follows:

$$LEV = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Figure 3 Research Framework



Source: Authors work (2025)

RESEARCH METHOD

This study uses a conclusive causal research design because it aims to determine the cause-and-effect relationship. The type of data used in this study refers to quantitative data sourced from secondary data in the form of annual reports of consumer cyclical companies listed on the Indonesia Stock Exchange. The population in this study refers to all consumer cyclical sector companies on the Indonesia Stock Exchange in 2021-2023, with a total of 125 companies. The

sampling technique used in this study refers to purposive sampling based on certain criteria, covering consumer cyclicals companies that were not suspended by the IDX and published complete annual reports during the research period, resulting in 112 company samples. The data analysis techniques applied in this study were descriptive statistics and logistic regression analysis using IBM SPSS Statistics 25.

FINDINGS AND DISCUSSION

Data Outlier Results

In this study, outlier data or data with extreme values that could affect the test results were found, so it was necessary to remove 11 rows of outlier data. This resulted in a change in the number of research samples from 336 to 325.

Descriptive Statistics Results

Table 1 contains the sample size, min, max, mean, and standard deviation of each research variable after outliers. The mean FD result is 0,35 with a standard deviation of 0,479. These results represent that, on average companies in the consumer cyclicals sector are less likely to experience financial distress, as the average value is close to 0. The mean IC value of 1,310 reflects the magnitude of intellectual capital utilization owned by the company. The mean WOMC value of 0,133 indicates that the company's ownership of woman on board of commissioners is relatively small. The mean value of WOMD of 0,183 indicates that the number of female directors in companies tends to be low. The minimum total nominal assets (FS) obtained by companies in the consumer cyclicals sector were 8,637 billion rupiah and 62.912 billion rupiah as the highest total nominal assets. These results reflect significant variation in company size, as indicated by the amount of assets owned. The average LEV value is 2,058, which indicates of the average company's wealth is financed by debt.

Table 1 Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
FD	325	0	1	0,35	0,479
IC	325	-123,755	12,634	1,31051	7,640118
WOMC	325	0,000	1,000	0,13307	0,216295
WOMD	325	0,000	1,000	0,18395	0,228963
FS (In billions of Rupiah)	325	8,637	62.912	4.040	7.570
LEV	325	0,003	117,384	2,05832	10,439440
Valid N (listwise)	325				

Source: Authors work (2025)

Overall Model Fit Results

The results of the overall model assessment were applied to determine the extent to which the addition of independent and control variables could improve the model fit. The test results showed that before adding the independent and control variables, the value of -2Log Likelihood block number 0 was 422,367. However, after adding independent and control variables to the model, a value of 340,485 was obtained in row -2Log Likelihood block number 1. This result shows a decrease of 81,882 in -2Log Likelihood after adding five variables in the form of independent and control variables. The chi-square table result with df5 (325-320) obtained a value of 11,070, which represents that the value is statistically significant. Thus, the value -2Log Likelihood 81,882 > 11,070 reflects the model fit. Based on these results, it can be interpreted that adding independent variables and control variables to the model can improve the model.

Coefficient of Determination Results (Nagelkerke R Square)

The Nagelkerke R Square result shows a value of 0,306 or 30,6%. This value can be interpreted as meaning that the independent and control variables consisting of intellectual capital, woman on board of commissioners, woman on board of directors, firm size, and leverage are able to explain 30,6% of the dependent variable, with the remaining 69,4% explained by other variables outside the scope of this study.

Regression Model Feasibility Test Results (Hosmer and Lemeshow's Test)

The Hosmer and Lemeshow Goodness of Fit Test is used to analyze hypotheses regarding data that fits the model. The Hosmer and Lemeshow Goodness of Fit test Chi-Square value is 2,291 with a significant probability value of 0,971. These results indicate that the significance value is greater than 0,05 (0,971 > 0,05), making the model acceptable because there is no significant difference between the model and the observed values.

Classification Matrix Results

The classification matrix shows that there are 210 data that did not experience financial distress, with a prediction accuracy of 187 data, resulting in a prediction accuracy percentage of 89%. Meanwhile, the data that experienced financial distress had an accuracy of 52 out of a total of 115 data, with an accuracy percentage of 45.2% and produced an overall classification prediction accuracy of 73.5%.

Parameter Estimation Results and Their Interpretation

Variables in the equation are used to test the effect of independent variables on dependent variables with the addition of control variables to minimize the impact of other factors outside the study. The basis for interpretation is based on a sig. value < 0,05, meaning that the independent variable and control variable have an influence on financial distress. Conversely, if the sig. value > 0,05, then the independent variable and control variable have no influence on financial distress. The β (Beta) value is used to determine the direction of positive and negative significance.

Tabel 2. Variable In The Equation

Variabel	B	Sig.
IC	-0,419	0,000
WOMC	-0,112	0,859
WOMD	0,295	0,611
FS	-0,232	0,007
LEV	0,001	0,933
Constant	6,402	0,007

Source: Authors work (2025)

Table 2 shows that the variable with a Sig. value < 0.05 is the independent variable of intellectual capital with a significance value of 0.000, which is less than 0.05 indicating that intellectual capital has an influence on financial distress. The beta value shows the negative influence of the intellectual capital variable on financial distress, as reflected in the figure of -0.419. Meanwhile, one of the control variables firm size also showed an influence on financial distress with a Sig. value of < 0.05 , namely 0.007. The beta value showed a figure of -0.232, reflecting the negative influence of the firm size control variable on financial distress. Conversely, the variables of woman on board of commissioners, woman on board of directors, and the control variable of leverage have a Sig. value > 0.05 , meaning that these three variables have no effect on financial distress.

Discussion

The influence of intellectual capital on financial distress

Based on the results of logistic regression tests, intellectual capital has a negative influence on financial distress. This influence represents that high intellectual capital values indicate a decrease in the possibility of financial distress, as an implication of the company's success in creating added value and optimal utilization of intellectual capital components. Conversely, low intellectual capital in a company indicates the possibility of financial distress. This condition can occur because companies with talented, competent, innovative, and creative human resources are able to achieve and manage their competitive advantages (Pradana & Chalid, 2023). This finding is consistent with the research by Ramadanty & Khomsiyah (2022) and Winata & Budiasih (2022) which has proven that intellectual capital has a negative influence on financial distress.

The data supporting the test results was obtained from Jakarta International Hotels & Development Tbk as the company with the highest intellectual capital value in the consumer cyclical sector for 2021-2023 and showed no indication of financial distress. On the other hand, PT Menteng Heritage Realty Tbk recorded the lowest intellectual capital value and indicated that the company was in a state of financial distress.

The suitability of these values reflects that intellectual capital has a negative influence on financial distress. These results consistently support the Resource Based View (RBV) theory, which represents the optimal ability to manage resources, including intellectual capital as intangible assets, capable of driving the creation of competitive advantages that contribute to improving company performance and minimizing financial distress.

The implications of this study are that companies in the consumer cyclical sector must consistently utilize their resources optimally, including intellectual

capital as relevant intangible assets that are difficult to imitate, and strive to create adaptation strategies and gradually develop their resource capabilities in order to drive the creation of sustainable competitive advantage. These efforts are necessary so that companies can avoid the risk of financial distress due to increased company performance.

The influence of woman on board of commissioners on financial distress

Logistic regression analysis testing shows that the variable of woman on board of commissioners has no influence on financial distress. These results reflect that the presence or absence of woman on board of commissioners cannot be used to predict a company's financial distress. In the descriptive statistical test results, woman on board of commissioners have a very low percentage, meaning that woman on board of commissioners do not yet have a sufficient impact in providing optimal managerial oversight for the company.

The data supporting these test results comes from Astra Otopart Tbk, PT. Garuda Metalindo Tbk, PT. Dharma Polimetal Tbk, and Indospring Tbk over a consecutive three-year period from 2021 to 2023, which did not have any woman on their boards of commissioners and did not experience financial distress during that period. These research results are not in line with agency theory, which states that the presence of woman on board of commissioners can reduce agency costs through their responsibility to supervise management and aims to reduce the occurrence of financial distress. The results of this study are in line with the findings of Kalbuana et al. (2022), which state that the presence of woman on board of commissioners has no influence on financial distress. The implication of this study is that companies in the consumer cyclical sector need to strive to increase the proportion of woman on their boards of commissioners. This consideration is intended because greater representation of woman can maximize results in monitoring and managing managerial performance, thereby preventing the risk of corporate financial distress.

The influence of woman on board of directors on financial distress

The results of the logistic regression analysis show that the variable woman on board of directors has no influence on financial distress. These results indicate that the presence or absence of woman on board of directors cannot be used to predict financial distress in a company. The lack of influence of woman on boards of directors is evident from data on the proportion of woman in consumer cyclical companies sector during the 2021-2023 period, which tends to be lower. The low of woman representation on the board of directors means that the operational capabilities implemented do not have much impact on the company's financial distress.

The data supporting these test results comes from Goodyear Indonesia Tbk, Multi Prima Sejahtera Tbk, and Selamat Sempurna Tbk. During the 2021-2023 period, these three companies did not have any woman on their boards of directors but during that time the companies did not experience financial distress. The results of this study are not in line with agency theory, which states that woman bring benefits to companies that can reduce agency costs and solve agency problems, as well as increase monitoring activities with the aim of reducing financial distress.

This study is in line with Sari & Setiawan (2024), who state that there is no significant influence of woman on board of directors on financial distress. The implications of this study are that companies in the consumer cyclical sector need

to strive to increase the proportion of woman on their boards of directors in order to implement efficient management strategies and prevent the risk of financial distress.

Control Variable

The results of logistic regression analysis show that the control variable of firm size has a negative influence on financial distress. This effect indicates that the larger the company size, the lower the risk of financial distress due to effective operational activities, as reflected in the same high level of total assets. The larger of the company also reduces the potential for failure to pay its obligations because it has a tendency to diversify (Alves et al., 2015). The results of this study are in line with Alhaddad *et al.* (2024) dan Guizani & Abdalkrim (2023), who argue that the control variable of firm size has a negative influence on financial distress. These results indicate that the control variable of company size is able to limit the influence of intellectual capital, woman on board of commissioners, and woman on board of directors on financial distress from other variables outside the study.

On the other hand, the leverage control variable has no influence on financial distress. This means that the leverage value obtained by dividing total debt by total assets cannot be used to predict a company's financial distress. The results of this study are in line with Hariyani & Kartika (2021) which show that there is no influence of the leverage control variable on financial distress.

CONCLUSIONS

Based on the results of the tests conducted, it can be concluded that the intellectual capital variable has a negative influence on financial distress in consumer cyclical companies listed on the Indonesia Stock Exchange in 2021-2023. This reflects that the higher the value of intellectual capital, the lower the probability of financial distress in a company. On the other hand, woman on board of commissioners and woman on board of directors have no influence on financial distress in consumer cyclical companies on the Indonesia Stock Exchange in 2021-2023. This means that the presence or absence of woman on board of commissioners and directors cannot be used to predict a company's financial distress.

LIMITATION & FURTHER RESEARCH

This study has several limitations, one of which is the limited research period, which only focuses on consumer cyclical companies listed on the Indonesia Stock Exchange from 2021 to 2023. Furthermore, this study only uses intellectual capital and woman on boards as variables to determine the direction of influence on financial distress. Therefore, researchers hope that future studies can extend the research period with a larger sample size so that the data produced is more representative and proportional. In addition, researchers hope that future studies can add variables beyond those in this study such as gender diversity, CEO duality, operational capacity, and sales growth, as well as develop the use of control variables and supplement them with mediating variables or eliminate variables that have no influence to complement future studies.

AUTHOR CONTRIBUTION

Author: Conceptualisation and Research Design, Data Collection, Methodology, Supervision, Writing Entire Paper, Conceptualisation, Data Collection and Analysis, Editing and Layouting. All Authors have read the final version of the paper.

Declaration of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix

Appendix 1 Data Outlier Results

Casewise List ^b							
Case	Selected Status ^a	Observed FD	Predicted	Predicted Group	Temporary Variable		
					Resid	ZResid	SResid
126	S	F**	0,066	N	0,934	3,770	2,531
168	S	N**	0,889	F	-0,889	-2,832	-2,319
99	S	F**	0,108	N	0,892	2,875	2,131
206	S	F**	0,124	N	0,876	2,656	2,081
155	S	F**	0,125	N	0,875	2,643	2,118
191	S	F**	0,096	N	0,904	3,062	2,213
239	S	F**	0,123	N	0,877	2,674	2,071
76	S	F**	0,081	N	0,919	3,363	2,259
87	S	F**	0,137	N	0,863	2,513	2,020
143	S	F**	0,076	N	0,924	3,499	2,305
223	S	F**	0,132	N	0,868	2,567	2,058

Source: Author work

Appendix 2 Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
FD	325	0	1	0,35	0,479
IC	325	-123,755	12,634	1,31051	7,640118
WOMC	325	0,000	1,000	0,13307	0,216295
WOMD	325	0,000	1,000	0,18395	0,228963
FS (Dalam Miliar Rupiah)	325	8,637	62.912	4.040	7.570
LEV	325	0,003	117,384	2,05832	10,439440
Valid N (listwise)	325				

Source: Author work

Appendix 3**Overall Model Fit Results**

Model Fit Test		Results
-2 Log Likelihood	-2 LL Block Number 0	422,367
	-2 LL Block Number 1	340,485

*Source: Author work***Appendix 4****Nagelkerke R Square**

Model Summary			
Step	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
1	340,485 ^a	0,223	0,306

*Source: Author work***Appendix 5****Hosmer and Lemeshow's Test**

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	2,291	8	0,971

*Source: Author work***Appendix 6****Classification Matrix**

Observed		Total of Observation	Predicted		
			FD		Percentage Correct
			NON FD	FD	
FD	NON FD	210	187	23	89,0
	FD	115	63	52	45,2
Overall Percentage					73,5

*Source: Author work***Appendix 7****Variable in The Equation**

Variable	B	Sig.
IC	-0,419	0,000
WOMC	-0,112	0,859
WOMD	0,295	0,611
FS	-0,232	0,007
LEV	0,001	0,933
Constant	6,402	0,007

Source: Author work