

Financial Performance in PT X: Do Cultural Entropy and Employee Engagement through Knowledge Management Matter?

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Abstract— This research is being done in PT X, an oil and gas company in Indonesia. This study aims to examine some influencing factors on financial performance, which consist of cultural entropy and employee engagement, with knowledge management as the mediating variables. This research uses PLS (Partial Least Square) with a structural equation model (SEM). Results show a significant negative effect from cultural entropy on financial performance while employee engagement in financial performance has a significant positive effect. In addition, knowledge management affects mediating cultural entropy and employee engagement. This study has different variables and proxies of measurement that are part of Organizational Knowledge Management Creation theory dimensions, the Tacit Knowledge and Explicit Knowledge. The cultural Entropy variable is also a relatively new variable that needs to be studied.

Index Terms— Knowledge Management, Cultural Entropy, Employee Engagement, and Information Technology.

I. INTRODUCTION

Knowledge management is a factor that considered being important to upgrading an organization's performance (Byukusenge & Munene, 2017). Organizations implement knowledge management to improve efficiency and to provide effective ways of using their intellectual assets (Akhavan & Pezeshkan, 2014). A lot of studies have addressed how knowledge management influences some organizational outcomes including organizational performance (Abubakar et al. (2019); Brix (2017); Esterhuizen et al., (2012); Vila et al. (2015)). One of the knowledge management activities that help organizational value is knowledge sharing (Singh et al. (2021); du Plessis (2007)). The knowledge sharing itself is influenced by many factors such as leadership style and has empirically proven to influence organizational performance (Masa'deh et al., 2016). Lack of communication or sharing knowledge happens in a large proportion of organizations and leads to the failure of implementing their organization strategies (Olubunmi, 2015; Lata & Kumar, 2023). Thus, failure to implement knowledge management activities can lead to failure to achieve good organizational performance.

PT X is an oil and gas company located in Indonesia that produces oil and gas commodities. The financial performance of PT X has experienced a financial decline over the past five years. This is due to the increase in

their operational expenses and their general administration expenses (Figure 1).

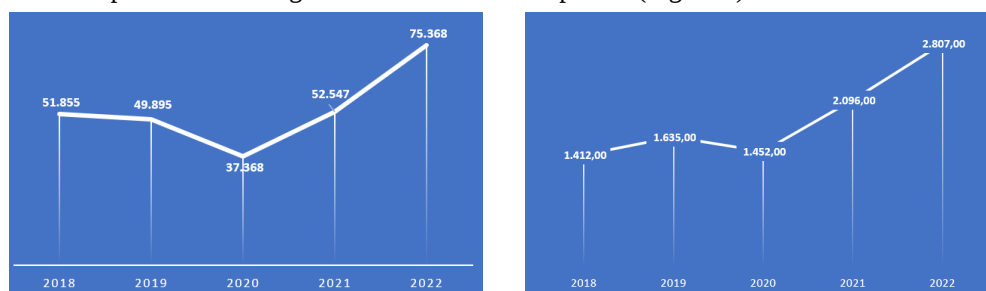


Figure 1 Operational expenses and general administration expenses graph

Based on the figure above, the highest rate of expenses will happen in 2022. During that period, the entity believed that this event happened because of some inefficiency in their culture of knowledge sharing. They believe that they should prioritize more time focusing on their intangibleF asset investment to decrease the expenses that rising in 2022.

We assume that the inefficiency of intangible assets such as knowledge is due to several factors. The first factor is a toxic culture that clashes bureaucracy with priorities. We then formulate this factor as a cultural entropy variable. Another factor that we assume causes knowledge walkout events is the lack of worker participation because they do not consider knowledge to be power. We then formulate this into the employee engagement variable. We assume that holistic and fine knowledge management will help to mediate the influence of these two variables to boost the financial performance of PT X.

This research was studied using Knowledge Management Theory and is still rarely done Davenport & Prusak (1998) define Knowledge Management as a formulation of information that has value for use in making a decision. Managing Knowledge Management is not easy in an organization, it requires a solid buffer or pillar and remains standing to contribute to competitive advantage.

Knowledge Management prescribes that business success is not a product but a specialized knowledge base. Cleverness is the key that will give the company competitiveness (Dalkir, 2011). Becerra-Fernandez & Sabherwal (2010) state that Knowledge Management is defined as a needed action to get maximum results from knowledge sources. The advantages of Knowledge Management Theory can bring up the Knowledge Sharing dimension, thus forming the Tacid Knowledge construct which reduces the Cultural Entropy variable, and employee involvement while the Explicit Knowledge construct reduces the Information Technology variable.

Knowledge Management Theory is expected to improve PT X's financial performance. PT X managerial level employees will bet the respondent since they have a reliable ability to answer perceptions about financial performance. The selection of respondents in the form of managerial employees was carried out with the assumption that all employees of PT X were familiar with the survey and that managerial employees had an equal understanding of financial performance as the dependent variable of this study.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Tacid Knowledge: Cultural Entropy

Knowledge can reside on the individual level, group level, and organizational level (Dalkir, 2011). The broad definition will make it difficult to differentiate the form of knowledge. One popular opinion that is still being used today regarding the form of knowledge is whether it either be tacit or explicit (Nonaka & Lewin, 1994). Tacit knowledge is implicit knowledge that cannot be recorded in a specific way, thus the knowledge-sharing process for this kind of knowledge is tricky. Al-Tit et al. (2022) define that one activity that is important in making tacit knowledge more explicit is sharing it, so we can transform tacit knowledge into explicit knowledge. Since tacit knowledge is tricky to share, some aspects should be influencing this, for example, the culture of an organization. Cultural entropy refers to the process of information loss or loss of order in cultural systems (Beaudreau, 2006). The concept explains the depreciation of identity and personal constructs over time due to increasing disruption or entropy in cultural information (Martínez-Berumen et al., 2014). As cultural information depreciates, identity may unravel leading to potential consequences such as individuals may experience doubt and a decreased sense of self-actualization (Beaudreau, 2006).

Effective Knowledge Management practices can help organizations reduce entropy by improving information flow, promoting knowledge sharing, and enhancing organizational learning (Martínez-Berumen et al., 2014). By

effectively managing knowledge, organizations can increase their level of information sharing, reduce uncertainty, and improve their ability to adapt and innovate, ultimately improving their sustainability.

The Cultural Entropy variable is derived from the dimensions of tacit knowledge theory, where the variable includes employee culture and employee management which is the source of knowledge sharing so that knowledge sharing can be broader, which is seen in terms of intuition, ideas, and ideas which are alleged to influence the increase or decrease in financial performance in the company (Al-Tit *et al.*, 2022 and Dalkir, 2013). Organizational culture has an essential role in knowledge management since it may strengthen or weaken its effectiveness (Ahmady *et al.*, 2016). An organization that has a knowledge-oriented, supportive, flexible, trusting, and reliable culture will contribute to effective knowledge management (Beaudreau, 2006). On the other hand, a higher entropy of organizational culture implies a higher level of interference and a lower level of information about the system's state, which may hinder effective knowledge management (Martínez-Berumen *et al.*, 2014).

Cultural Entropy has an essential effect on an organization's performance and effectiveness (Ahmady *et al.*, 2016). An organizational culture that has high cultural entropy indicates weak performance in an organization and hinders effective knowledge management (Martínez-Berumen *et al.*, 2014). The higher the cultural entropy the lesser Financial performance, and vice versa (Kumar and Lata, 2022; Martínez-Berumen *et al.*, 2014).

Beaudreau (2006) stated that cultural entropy refers to the process of loss of information or loss of order in a cultural system. A concept used to explain the depreciation of identity and personal construction over time due to increasing disruption or entropy in cultural information (Martínez-Berumen *et al.*, 2014). Cultural entropy leads to potential consequences such as individuals experiencing doubt and a decreased sense of self-actualization thus affecting organizational performance (Beaudreau, 2006). Barrett (2010) & Hewitt, (2009) state that cultural entropy negatively affects organizational performance. This confirms that the lower the cultural entropy the more it will improve Financial Performance Based on these statements, we make our hypothesis as:

H1a: Cultural Entropy Harms Financial Performance.

H1b: Cultural Entropy negatively affects Financial Performance through Knowledge Management.

B. Tacit Knowledge: Employee Engagement

In addition to cultural entropy, tacit knowledge also reduces employee engagement variables. Employee engagement means that employees have a sense of energetic and effective relationships based on personal preferences so that they can fully handle the needs of their work (Maslach & Leiter, 1997). Employees with a high sense of discipline and energy at work will lead to high knowledge sharing for the benefit of the organization. The logic that can be raised means that better Employee Engagement leads to better financial performance (Sung & Choi, 2012).

Employee engagement has been linked to improved job performance, which in turn can contribute to financial success (Astari *et al.*, 2022). Engaged employees tend to be more motivated, committed, and productive, leading to increased profitability and organizational success (Astari *et al.*, 2022). Organizations with higher levels of employee engagement tend to experience higher customer satisfaction, sales growth, and profitability. Employee engagement can also lead to reduced turnover and associated costs, further contributing to financial performance (Astari *et al.*, 2022). Organizations need to prioritize employee engagement as it may affect financial performance.

High engaged employees will be more satisfied with their jobs, so the level of customer satisfaction and loyalty will also be higher, resulting in increased sales and revenue (Ahmed *et al.*, 2020). Employee loyalty reduces turnover costs allows organizations to retain valuable knowledge and skills, and finally contributes to financial performance (Astari *et al.*, 2022). Engaged employees are more innovative and creative, which leads to better performance on developing new products, and finally generates additional revenue streams and improves financial performance (Ahmed *et al.*, 2020). Engaged employees affect positively the overall organization culture, fostering a positive work environment and attracting top talent, which can contribute to financial performance in the long run (Ajie & Nugroho, 2023).

Employee Engagement is improving organizational performance and generating success in financial performance (Astari *et al.*, 2022). Ajie & Nugroho (2023) stated that Employee Engagement affects financial performance positively. This is because employees who have high commitment will be motivated to contribute to the success of the organization. Employees who have a high work ethic will lead to increased productivity and efficiency, thus positively impacting financial performance (Ajie & Nugroho, 2023). The higher the employee engagement, the better the financial performance (Sung & Choi, 2012b). Previous research stated that Employee Engagement has a positive effect on financial performance (Ajie & Nugroho, 2023). Employee engagement means employees have an energetic and effective sense of connection at least partly based on personal

preference being able to handle fully the demands of their job (Maslach & Leiter, 1997). Employees who have a high sense of discipline and are energetic at work will bring up high *knowledge sharing* for the benefit of the organization.

Consistent with research conducted by (Astari *et al.*, 2022; Maslach & Leiter, 1997; and Sung & Choi, 2012b). The logic that can be raised means that the higher the Employee Engagement, the more it will increase financial performance. Based on that logic, we formulate our hypothesis as:

H2a: Employee Engagement has a positive effect on financial performance.

H2b: Employee Engagement has a positive effect on financial performance through Knowledge Management.

III. METHOD

This research is causal associative, which is research that looks for the influence (relationship) of cause and effect (causal) because it aims to determine the influence of independent variables (independent) on dependent variables (Sugiyono, 2012). The type of data used in this study is primary data. The data collection needed in this study uses an instrument in the form of a questionnaire, which is adapted from several previous studies and will be modified according to research needs.

The population of this study is employees of PT X Indonesia. The sample in this study was carried out by *purposive random sampling technique* (Sugiyono, 2012). PT X's managerial employees will be randomly selected but use a little reference in the form of working time of at least half a year and being able to represent each division in each company unit. This is because every managerial employee is *familiar* with surveys and has an equivalent understanding of the general condition of the company's finances. The number of samples in this study was 417 managerial employees from 33 subsidiary units of PT X.

The endogenous latent variable used in this study is financial performance. This variable is measured by a scale developed by Leonidou *et al.* (2013) which proposes four measurement items, namely increased profit, increased ROI, increased *sales* volume, and increased *cash flow*. The questionnaire was answered using "No" and "Yes" answers to each of the questions in this variable questionnaire. Both answers are translated into a dummy scale of 0 and 1. A high score indicates a good level of financial performance and vice versa. The four measurement items are written in Table 1 below.

TABLE I. QUESTIONNAIRE FOR FINANCIAL PERFORMANCE VARIABLE

NO	Questionnaire Questions	Measurement
1	My Company's Profit Margin Increased (percentage of profit to revenue)	Likert scale 1-5 (Strongly disagree-strongly agree)
2	My Company's Return on Investment Went Up	
3	My Company's Production / Sales Volume Increased	
4	My Company's Cash Flow Increased	

The first exogenous latent variable, cultural entropy, was measured using a questionnaire that used developed by Martinez-Berumen *et al.* (2014).

TABLE II. QUESTIONNAIRE FOR CULTURAL ENTROPY VARIABLE

NO	Questionnaire Questions	Measurement
1	A Warm, Collaborative, and Welcoming Workplace, where people help and support each other, feels like a big family.	Rank the following statements from 1-8 according to the one that best describes your organization's culture [1/TopMost = best description of your company culture; 8/Bottom = least fitting description]
2	An Adaptive, Open-Minded Workplace, where people spark new ideas and explore alternatives.	
3	Light and Fun Work Environment, where people tend to do what makes them happy. It feels like a party or celebration.	
4	A Results-oriented, Achievement-based Workplace, where people are encouraged to achieve top performance.	
5	A Competitive Workplace, where people seek to gain personal advantage.	
6	A Caring and Tolerant Workplace, where people try to do good for the future of the world in the long term.	
7	A predictable workplace, where people tend to play it safe.	
8	An Orderly/Orderly Workplace, where people tend to play by the rules and have a desire to conform.	

The second exogenous latent variable, employee engagement, was measured using the *Employee Engagement Scale* (EES) measurement tool adopted in this study developed by (Astari *et al.*, 2022) as written in Table 3 below.

TABLE III. QUESTIONNAIRE FOR EMPLOYEE ENGAGEMENT VARIABLE

No	Questionnaire Questions	Measurement
1	I'm very focused when I'm at work.	Likert scale 1-5 (Strongly disagree-strongly agree)
2	I concentrate on my work when I am working.	
3	I pay a lot of attention to my job responsibilities.	
4	While at work, I focus on my work.	
5	Working in this company gives a lot of meaning to me personally.	
6	I have a strong sense of ownership of my work.	
7	I believe in the mission and purpose of the company I work for.	
8	I care about the future of the company I work for.	
9	I tried hard to push myself to work above and beyond what was expected of me.	
10	I am willing to make more efforts without being asked.	
11	I often go above and beyond what is expected of me to help my team be successful.	
12	I worked harder than expected to help the company I worked for be successful.	

The mediating variable is Knowledge Management, which was measured with the efficiency of the KM program in each department at PT X. Efficiency assessment is carried out by analyzing KM input factors, namely the KM process with the SECI method introduced by (Nonaka & Takeuchi, 1996). This measurement then being developed with 19 questionnaires and being answered with a Likert scale of 1-4 as written in Table 4 below.

TABLE IV. QUESTIONNAIRE FOR KNOWLEDGE MANAGEMENT VARIABLE

No	Questionnaire Questions	Measurement
1	After the knowledge-sharing process, I saw that employees could share insights about work.	Likert scale 1-4 (Strongly disagree- strongly agree)
2	As a boss, I share insights with subordinates regarding work.	
3	Through the process of observation, I see employees can observe and capture knowledge of what I do.	
4	Through the process of observation, I see employees can observe the behavior of other employees so that knowledge transfer can occur.	
5	After I provide knowledge, then there must be feedback regarding knowledge from employees (my team members).	
6	After the transfer of knowledge, my team and I must have experienced a change in behavior due to increased knowledge.	
7	I have a collection of knowledge, experience, and expertise that are recorded and become guidelines in carrying out work (Manual & Operational Standards).	
8	Employees in my department must have a collection of knowledge, experience, and expertise that are recorded and become guidelines in carrying out work (Manual & Operational Standards).	
9	After the meeting, I ask employees to document the meeting minutes in explicit form and then convert them into digital form to be published to those interested.	
10	I am very capable of comparing knowledge in the form of models or work system designs so that employees (my team) can understand.	
11	When conceptualizing new product development, I notice a spread of knowledge among my team (from employee to employee group).	
12	Within my department, there must be an increase in knowledge through the process of conversations, meetings, memos, etc.	
13	After the process of socializing knowledge in the team, I can see the development of knowledge by adding or giving positive or negative criticism to benefit other employees.	
14	After my team carried out the socialization and externalization process, the explicit knowledge produced was then managed and collected into one so that it was very easy if the knowledge was needed again, for example, KM database systems, etc.	
15	My team must evaluate the previous business processes to see if they can be made more effective business processes according to existing circumstances.	
16	I allow employees to do the experience that other employees have done (practical work).	
17	I can impart explicit knowledge in tacit form to my team.	
18	In my department, all documents or data, information, and knowledge that have been documented can be read by others so in this process there must be an increase in HR Knowledge.	
19	I see my team as very helpful in carrying out work through explicit knowledge and verbal stories.	

All of the variables are measured in the form of a *self-administered* questionnaire. The study framework is as pictured below.

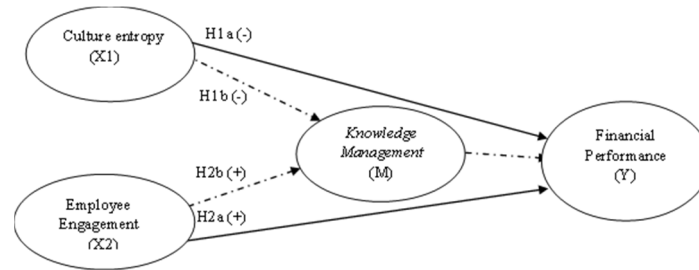


Figure 2. Study framework

Parameter hypothesis testing in SEM PLS was performed with the *Bootstrap resampling* method developed by Geisser and Stone (Solimun *et al.*, 2017). The application of *the resampling method* allows the validity of data free from distribution-free assumptions or does not require normal distribution assumptions (Solimun *et al.*, 2017). The test is carried out with a *t-test*, if a *p-value* of ≤ 0.10 (alpha 10%) is obtained, it is said to be *weakly significant*, if *the p-value* ≤ 0.05 (alpha 5%) then it is said to be *significant*, and if *the p-value* ≤ 0.01 (alpha 1%) then it is said to be *very significant* (Solimun *et al.*, 2017). The *R-squared measurement technique* is performed to show what proportion of response variables can be explained by predictor variables. The higher the *R-squared*, the better the model, and vice versa, and *R-squared* only exists for response variables (Solimun *et al.*, 2017).

IV. RESULT AND DISCUSSION

A. Result

i. Statistical Descriptive: On the preliminary result, the amount we chose the sample from the employees that are on the managerial level or above since this level of employee is familiar with the survey and knows their financial performance the best. From that level of employee, the participants scattered in the profile as described in table 5 below:

TABLE V. DESCRIPTION OF PRATICIPAN'S PROFILE

Demographic		Frequency	Percentage
Gender	Male	315	76%
	Female	102	24%
Age	20-29	8	2%
	30-39	89	21%
	40-49	224	54%
	50-59	96	23%
Education	Under Diploma	6	1%
	Diploma	25	6%
	Bachelor	254	61%
	Master	129	31%
	Doctor	3	1%
Work Time	Under 1 year	3	1%
	1 until 10 years	156	37%
	11 until 20 years	163	39%
	21 to 30 years	77	18%
	31 to 40 years	18	4%

ii. Hypothesis Testing: Table 6 shows the Adjusted R Square value for the financial performance variable obtained at 0.212. The R-Square value shows that 21.00% of the variable's financial performance (Y) can be influenced by the variables Cultural Entropy, Employee Engagement, and Knowledge Management variables (M). Meanwhile, the remaining 79.00% is influenced by other variables outside the variables studied.

TABLE VI. R SQUARE

Variable	R-square	R-square adjusted
Financial Performance	0.218	0.212
Knowledge Management	0.333	0.329

Table 6 also shows the R-square adjusted for Knowledge management *value* of 0.329 shows that *the* Knowledge Management (M) variable can be influenced by the variables Cultural Entropy, Employee Engagement, and Financial Performance by 32.9% while the remaining 67.1% is influenced by other variables outside the study. The result of hypothesis testing used in testing the hypothesis is the t-count value. Hypothesis testing can be done by comparing the t-count with the t-table. The value of the t-table can be obtained from respondents who in the end obtained a t-table of 1.960. However, if you use the p-value, the benchmarking value used is the error rate value (α) of 5%. The results of testing the research hypothesis are as follows:

TABLE VII. RESULTS OF DIRECT HYPOTHESIS ANALYSIS

Hipotesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
Culture Entropy -> Financial Performance	-0.092	-0.101	0.046	2.024	0.043
Employee Engagement -> Financial Performance	0.212	0.212	0.063	3.357	0.001

The results of testing the variable hypothesis showed that the p-value < 0.05 and the statistical t-value> from the tablet (1.96). Therefore, hypothesis 1a is accepted because the variable culture entropy to financial management has p values 0.043 (under 0.05) and it has -0.092 as the original sample, so it can be stated that the influence given is negative by 0.092 times. Hypothesis 2a is also accepted because the variable employee engagement to financial performance has p p-value of 0.001 (under 0.05) and it has an original sample of 0.212 which means that the influence is positive 0.212 times.

TABLE VIII. RESULTS OF INDIRECT HYPOTHESIS ANALYSIS (MEDIATING VARIABLE)

Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
Culture Entropy -> Knowledge Management -> Financial Performance	-0.033	-0.035	0.014	2.358	0.018
Employee Engagement -> Knowledge Management -> Financial Performance	0.156	0.157	0.037	4.278	0.000

The results show that both hypotheses have a p-value < 0.05 and a statistical t-value> from the tablet (1.96). Therefore, this means that the hypothesis is accepted or the mediating variable mediates variable x. For hypothesis 1b, cultural Entropy through Knowledge Management on financial performance has a significance of 0.018 or less than 0.05 with t count 2.358 (> t table 1.96) then it can be stated that the KM variable exerts a significant or real influence or mediates the relationship between the two. Then for hypothesis 2b, the effect of Employee Engagement through Knowledge Management on Financial Performance has a significance of 0.00 or less than 0.05 with t count 4.278 (> t table 1.96) then it can be stated that KM variables exert a significant or real influence or mediate the relationship between the two.

B. Discussion

The results of the study using Smart PLS showed that Cultural Entropy Variables negatively affect financial performance, while Employee Engagement positively affects financial performance. Other results show that Knowledge Management as a mediating variable has proven successful in mediating the variables of Cultural Entropy, Employee Engagement, and Information Technology.

i. Cultural Entropy Variables Affect Financial Performance: The Cultural Entropy variable has a significant negative effect on financial performance with a significance value < 0.05 . This shows that the results follow the hypothesis (H1a), which states the higher the Cultural Entropy the lower the financial performance. These results are supported by previous research, namely Cultural Entropy is information and an order that is missing in a cultural system. This is certainly a *toxic culture* and is an obstacle to the process of performance associated with financial performance (Beaudreau, 2006). Concepts in the explanation of the depreciation of identity and personal construction will certainly interfere with cultural information (Martínez-Berumen *et al.*, 2014). Cultural information that has decreased will reduce identity so that doubts arise in self-actualization, and this certainly has an impact in terms of financial performance in a company (Beaudreau, 2006).

This result is consistent with Ahmady *et al.* (2016) that Cultural Entropy has a significant influence on the performance and effectiveness of the company related to financial performance. High Cultural Entropy indicates weak performance in an organization and hinders effective knowledge management (Martínez-Berumen *et al.*, 2014). The higher the Cultural Entropy will decrease financial performance, and vice versa the lower the level of Cultural Entropy will increase financial performance (Martínez-Berumen *et al.*, 2014).

It's also consistent with Barrett (2010) & Hewitt (2009) that states that Cultural Entropy negatively affects organizational performance. This confirms that the lower the Cultural Entropy the more it will improve financial performance. PT X's culture starts from how *leaders* instill values that will then shape behavior, then shape culture, and finally, that culture will drive performance. The desired form of high-performance culture is to give birth to a solid team with *shared values* as a unifier. The realization of the competence and character of PT X workers who are valued at par with the global corporate value standards of the oil and gas industry.

Organizations that are healthy and have a strong performance culture, have fewer cultural barriers. PT X's entropy improved from the previous year, from 13.04% to 12.99%. This shows that there are still small obstacles in the company that require cultural adjustment. PT X still has an *Entropy* Level in managing a healthy organization, of course, these problems can affect financial performance.

ii. Employee Engagement Variables Affect Financial Performance: The Employee Engagement variable has a significant positive effect on financial performance with a significance value < 0.05 . This shows that the results follow the hypothesis (H2a), which states the higher the Employee Engagement, the higher the financial performance. These results are supported by previous research which states that Employee Engagement is related to improving organizational performance and has an effect on the success of financial performance (Astari *et al.*, 2022).

Consistent with Ajie & Nugroho's (2023) research states that *employee engagement* has a positive influence on financial performance. This is because employees who have high commitment will be motivated to contribute to the success of the organization. Employees who have a high work ethic will lead to increased productivity and efficiency, thus positively impacting financial performance (Ajie & Nugroho, 2023). The higher the employee engagement, the better the financial performance (Sung & Choi, 2012b).

Previous research stated that Employee Engagement has a positive effect on financial performance (Ajie & Nugroho, 2023). Employee engagement means employees have an energetic and effective sense of connection at least partly based on personal preference being able to handle fully the demands of their job (Maslach & Leiter, 1997). Employees who have a high sense of discipline and are energetic at work will bring up high *knowledge sharing* for the benefit of the organization. This is consistent with research conducted by (Astari *et al.*, 2022; Maslach & Leiter, 1997; Sung & Choi, 2012).

iii. Knowledge Management Variables Mediate and Affect Financial Performance: We found that the Knowledge Management variable mediates the cultural entropy to the financial performance variable and mediates employee engagement to financial performance. This is consistent with some previous research that found knowledge management and knowledge sharing play a mediating role in the relationship between employee engagement and organizational culture as it facilitates the transfer and dissemination of knowledge and ideas within organizations (Ahmed *et al.*, 2020; Ajie & Nugroho, 2023).

Employees who engage in knowledge management through knowledge sharing may exchange information, experience, and expertise, which can lead to the generation of new ideas and innovative solutions (Ajie & Nugroho, 2023). Through good knowledge management, employees can access broader information and perspectives, which can enhance their creativity and problem-solving abilities, ultimately contributing to innovative performance. Knowledge management also promotes collaboration and teamwork, as employees work together to share and build knowledge with each other, fostering a culture of innovation within the organization (Ahmed *et al.*, 2020). In addition, knowledge management helps employees stay updated on the

latest industry trends and advancements, enabling them to identify new opportunities for innovation and remain competitive in the market (Ajie & Nugroho, 2023).

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