



RESEARCH ARTICLE

The Effect of Intellectual Capital, Behavior Direction, Effort Level, and Persistence Level on Employee Performance as an Effort to Improve Productivity at PT. Global Offset Sejahtera

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Abstract

This study examines the role of intellectual capital in enhancing work productivity by focusing on three aspects of employee behavior: the direction of their actions, the amount of effort they put in, and their level of persistence. The research is conducted at PT. Global Offset Sejahtera, a printing company based in Sidoarjo. Intellectual capital is considered an intangible resource made up of the knowledge, skills, and capabilities of individuals and the organization as a whole. These elements help in achieving company objectives in a more effective and efficient manner. The study included 200 employees as participants and used a quantitative method along with SPSS for data analysis. The findings reveal that the three behavioral dimensions significantly impact employee productivity. This suggests that building intellectual capital not only enhances individual thinking abilities but also shapes how employees behave, how hard they work, and how long they persist in their tasks. As a result, it is recommended that companies adopt strategies for managing intellectual capital that are closely linked to efforts aimed at improving employee behavior, in order to support long-term productivity growth.

Keywords

Intellectual Capital; Direction Of behavior; Level Of Effort; Level Of Persistence; Productivity.

1 | INTRODUCTION

In the era of globalization and intense business competition, companies must constantly innovate and improve operational efficiency to maintain their competitive edge. Human resources (HR) play a vital role in achieving organizational objectives, particularly in industries such as printing, where employee performance directly impacts productivity levels. High employee performance is critical to maintaining the quality and efficiency of production processes, making it essential for companies to leverage all available resources effectively. A growing body of literature emphasizes the importance of intangible assets, particularly intellectual capital, in boosting both individual and organizational performance. Intellectual capital, consisting of human, structural, and relational components, provides the foundation for knowledge generation, innovation, and competitive advantage. Human capital refers to the skills, expertise, and knowledge of employees, while structural capital relates to the systems and processes that enable the organization to function efficiently. Relational capital, on the other hand, includes the relationships and networks that a company maintains with its stakeholders, including customers, suppliers, and partners. Although the value of intellectual capital is widely acknowledged, its integration with behavioral factors such as the direction of behavior, level of effort, and persistence is not well understood, particularly within industry-specific settings like printing. Research has shown a clear link between intellectual capital and organizational success across various sectors. However, the role that behavioral dimensions play in optimizing intellectual capital's impact on employee performance remains underexplored, particularly in industries with high production demands like printing (Dereli, 2015). Understanding how these behavioral traits interact with intellectual capital could offer significant insights for improving employee performance and increasing overall productivity in the printing industry.

Existing studies have shown a positive correlation between intellectual capital and organizational performance across various sectors. However, several gaps remain in the empirical evidence. First, limited research has focused on the printing industry, a sector that faces high production demands, stringent quality standards, and technological limitations. These challenges require a combination of efficiency, precision, and innovation, yet few studies have addressed how intellectual capital plays a role in overcoming these obstacles. Second, previous studies often examine behavioral factors such as motivation, persistence, and work direction in isolation, without considering how these elements interact with intellectual capital to impact employee performance. These behavioral traits are essential in shaping how intellectual capital is utilized, yet their collective influence remains underexplored. Third, managerial practices and cultural aspects in regions like Indonesia offer distinct perspectives that may not apply to other geographical areas. Indonesia's unique business environment provides a valuable setting for examining the relationship between intellectual capital and behavioral factors, offering insights that may differ from studies conducted in other parts of the world. This research aims to address these gaps by examining the combined effects of intellectual capital and behavioral factors on employee performance at PT Global Offset Sejahtera, a prominent printing company in Sidoarjo, Indonesia. By focusing on this specific industry and location, the study seeks to provide a deeper understanding of how these factors work together to drive productivity in the printing sector. Additionally, the findings may offer valuable implications for human resource management practices in industries facing similar challenges (Gogan *et al.*, 2016).

The central research problem addressed in this study focuses on how intellectual capital, behavior direction, effort level, and persistence level impact employee performance and influence organizational productivity. The research questions are designed to assess both the individual and combined effects of these factors on performance, providing a clear understanding of their interaction. The study aims to achieve several objectives. First, it evaluates how intellectual capital influences work-related behaviors, taking into account various components such as human, structural, and relational capital. Second, the research measures the role of behavioral dimensions, including motivation, persistence, and work direction, in shaping productivity within the workplace. By analyzing these factors together, the study will examine their collective influence on employee performance. Lastly, the research seeks to develop practical recommendations for human resource strategies that can enhance performance and foster long-term improvements. These recommendations will be particularly useful for organizations striving to optimize both intellectual capital and employee behavior. This study is expected to offer valuable insights into how intellectual capital and behavioral traits work in tandem to drive organizational outcomes. The results will help HR professionals and organizational leaders develop strategies to improve employee performance and overall productivity (Mention, 2012).

Methodologically, this study uses a quantitative approach, distributing structured questionnaires to 200 employees of PT Global Offset Sejahtera. The collected data were analyzed using multiple regression techniques with SPSS software, which allowed for testing hypotheses about the relationships between the variables and their significance. Preliminary results indicate that intellectual capital has a notable impact on employee productivity, with behavioral factors such as clarity of work direction, effort level, and persistence playing a mediating role. These behavioral factors are key to effectively applying intellectual capital, which in turn enhances individual and organizational performance.

This research contributes to the fields of human resource management and organizational behavior by linking intellectual capital with behavioral factors in a hybrid manufacturing-service environment. The study offers new insights

into how intangible assets, like human and relational capital, interact with employee behaviors to influence productivity and performance. On a practical level, the findings offer valuable guidance for managers in the printing industry, helping them strengthen intellectual capital while fostering behaviors that boost productivity. These insights can assist organizations in optimizing both their resources and workforce, leading to improved long-term performance and operational success (Yuliansyah & Amelia, 2018).

In conclusion, the research aims to provide a clearer understanding of how intellectual capital and behavioral factors, such as direction of behavior, effort level, and persistence, influence employee performance and contribute to organizational productivity. By focusing on PT Global Offset Sejahtera, a key player in the printing industry, the study addresses existing gaps in the literature, particularly in terms of how these factors interact in a high-demand sector like printing. The findings will help organizations identify effective strategies for optimizing both their intellectual assets and employee behavior, ultimately driving long-term improvements in performance. This research not only enhances the understanding of human resource management and organizational behavior but also offers practical insights that managers and HR professionals can apply to improve productivity and operational success.

2 | BACKGROUND THEORY

This study is grounded in several key concepts, including intellectual capital, employee performance, and behavioral dimensions, specifically direction of behavior, effort level, and persistence. These concepts are combined to form a framework for understanding how intangible resources and individual work behaviors influence productivity within organizational settings. Intellectual capital, encompassing human, structural, and relational elements, is essential for fostering knowledge, innovation, and competitive advantage. Behavioral factors such as work direction, effort, and persistence play a critical role in determining how effectively intellectual capital is utilized in achieving organizational goals. In the printing industry, where operational demands are high, these factors are crucial in maintaining consistent productivity and meeting quality standards. By integrating these concepts, the study aims to shed light on how the interplay between intellectual capital and individual behaviors impacts overall performance and productivity (Asiaei & Jusoh, 2015).

Intellectual Capital and Organizational Performance

Intellectual capital has been widely recognized as a central driver of value creation in knowledge-based economies. Stewart (1997) defines intellectual capital as the aggregate of knowledge and expertise within a company that provides a competitive advantage, while Edvinsson and Malone (1997) conceptualize it as knowledge that can be converted into value. Bontis (1999) further classifies intellectual capital into three interrelated components: human capital, structural capital, and relational capital (Edvinsson *et al.*, 2022). Human capital reflects the skills, competencies, and creativity of employees, which are essential for ensuring operational accuracy and fostering innovation, particularly in industries such as printing (Thatrak, 2021). Structural capital encompasses organizational systems, procedures, and technologies that support efficiency and reliability, including standardized operating procedures and integrated management systems (Putra *et al.*, 2024). Relational capital emphasizes external networks and trust, such as customer loyalty and supplier partnerships, which strengthen business continuity and competitiveness (Thatrak, 2021). Previous studies consistently demonstrate the positive influence of intellectual capital on productivity (Bontis *et al.*, 2000; Edvinsson & Malone, 1997; Nahapiet & Ghoshal, 1998). However, debate persists regarding whether intellectual capital directly affects performance or whether its impact is mediated by employees' behaviors (Teece *et al.*, 1997). This study positions intellectual capital as a foundational resource that requires complementary behavioral factors to fully unlock its potential in enhancing employee performance (Mention, 2012).

Behavioral Dimensions: Direction, Effort, and Persistence

In addition to knowledge-based assets, employee behaviors play a critical role in determining work outcomes. Locke and Latham (2002) emphasize that the direction of behavior employees' alignment with organizational goals—ensures that tasks are carried out with clarity and focus. A lack of behavioral direction can undermine efficiency, even in organizations with strong intellectual resources (Surya, 2010). Vroom's (1964) expectancy theory underscores the importance of effort, defined as the physical and cognitive energy exerted by employees in performing their roles. High levels of effort are strongly associated with motivation, commitment, and improved job performance (Defa & Bastian, 2014). Similarly, Duckworth *et al.* (2007) highlight persistence as a key determinant of long-term success, reflecting employees' ability to sustain effort despite challenges. Persistence has been linked to resilience and adaptive problem-solving, qualities that are indispensable in high-pressure environments, such as printing operations (Agustin *et al.*, 2014). These behavioral dimensions—direction, effort, and persistence—complement the role of intellectual capital by shaping how resources are applied in practice. Employees with strong intellectual assets but weak behavioral alignment may underperform, while those with high behavioral engagement but limited structural support may also face constraints

(Edvinsson *et al.*, 2022).

Integrative Theoretical Perspective

The integration of intellectual capital with behavioral constructs aligns with contemporary organizational behavior theories. Luthans, Avey, and Patera (2008) demonstrate that psychological capital including optimism, resilience, and persistence enhances performance when supported by structural systems. Similarly, Widyaningrum and Widiana (2010) argue that intellectual capital must be embedded within organizational processes and behaviors to maximize productivity. This integrative perspective suggests that while intellectual capital provides the capacity for productivity, it is employee behaviors that determine its effective realization. By focusing on the combined influence of intellectual capital and behavioral dimensions, this study extends previous research, which often examined these constructs in isolation (Yuliansyah & Amelia, 2018).

Positioning within Scholarly Debate

The literature generally agrees that both intellectual capital and employee behaviors contribute to performance, but methodological gaps persist. Many prior studies adopt cross-industry samples, limiting contextual specificity, while few have explored the unique challenges of the printing sector, such as tight deadlines, technological disruptions, and stringent quality demands (Riswanto *et al.*, 2014). Moreover, existing studies often examine intellectual capital or behavioral factors independently, without assessing their simultaneous and interactive effects. By addressing these gaps, this study advances theoretical understanding by positioning intellectual capital as a resource whose effects are mediated through employees' direction, effort, and persistence. In doing so, it contributes to both human resource management and organizational behavior literature, while offering practical insights for enhancing productivity in the printing industry (Paoloni *et al.*, 2023).

3 | METHOD

1) Research Design

This study employed a quantitative research design with a causal-explanatory approach to examine the influence of intellectual capital, direction of behavior, level of effort, and level of persistence on employee performance. A quantitative approach was deemed appropriate as it allows for objective measurement of the relationships among variables and hypothesis testing through statistical procedures. The causal design was specifically chosen to assess both partial and simultaneous effects of independent variables on the dependent variable, thereby providing a comprehensive understanding of performance determinants. (Goundar, 2012)

2) Population and Sampling

The population of interest comprised all permanent employees of PT Global Offset Sejahtera, a large printing company located in Sidoarjo, Indonesia. At the time of study, the total population consisted of 300 employees across departments including production, administration, distribution, and management. The sample size was determined using Slovin's formula with a 10% margin of error, resulting in a required minimum of 100 respondents. To ensure representativeness, probability sampling was adopted, specifically simple random sampling, which provides equal opportunity for every individual in the population to be selected (Etikan *et al.*, 2016). A final sample of 200 employees was surveyed, exceeding the minimum requirement and thereby strengthening the reliability of the results. (Walliman, 2021)

3) Measurement Instruments

Data were collected using a structured questionnaire designed with closed-ended items measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The instrument measured five constructs: intellectual capital (human, structural, and relational capital), direction of behavior (clarity of goals, alignment with organizational vision, and role understanding), level of effort (dedication, discipline, and effective use of work time), level of persistence (resilience, consistency, and perseverance), and employee performance (quality, quantity, timeliness, initiative, and teamwork). Validity testing was conducted using Pearson's correlation, with all items meeting the criterion of $p < 0.05$, indicating adequate construct validity (Slamet & Wahyuningsih, 2022). Reliability was confirmed using Cronbach's alpha, with all variables exceeding the threshold of 0.70, demonstrating internal consistency of the instrument. (Snyder, 2019)

4) Data Collection Procedures

The data collection was carried out between January and March 2025. Questionnaires were distributed directly to respondents in the company's operational setting, with prior consent obtained from both management and employees. To complement survey data, preliminary interviews were conducted with several managers and staff to contextualize employee experiences and organizational dynamics. Secondary data, such as company productivity reports and training records, were also reviewed to enrich the analysis. All participants were

informed of the purpose of the research, assured of the confidentiality of their responses, and advised that participation was voluntary. Ethical clearance was obtained from the academic institution supervising the study, and data collection adhered to standard ethical guidelines for social science research. (Patten, 2016)

5) Data Analysis

The data were analyzed using multiple linear regression with SPSS version 25. Prior to hypothesis testing, classical assumption tests were conducted, including tests for normality, multicollinearity, and heteroscedasticity, to ensure the model met Best Linear Unbiased Estimator (BLUE) criteria. The regression model estimated the effects of intellectual capital, direction of behavior, level of effort, and level of persistence on employee performance. Hypothesis testing employed three procedures: the F-test to assess simultaneous significance, the t-test to evaluate partial effects, and the coefficient of determination (R^2) to measure the explanatory power of the independent variables. Significance was assessed at the 0.05 level. This combination of statistical techniques provided robust evidence for interpreting the causal relationships among the study variables. (Ahuja, 2011)

6) Methodological Limitations

Several methodological limitations were acknowledged. First, the reliance on self-reported questionnaire data may introduce response bias. To mitigate this, anonymity was guaranteed, and cross-validation with secondary company data was conducted. Second, the study was limited to one company in the printing sector, which may restrict generalizability. Nevertheless, the purposive selection of PT Global Offset Sejahtera reflects its relevance as a case study in a competitive and technology-driven industry. (Patel & Patel, 2019)

4 | RESULTS AND DISCUSSION

4.1 Results

Based on the data analysis conducted using SPSS version 27, validity and reliability tests were performed on the research variables, namely Intellectual Capital (X_1), Behavioral Direction (X_2), Effort Level (X_3), and Persistence Level (X_4), in relation to Employee Performance (Y). The results demonstrate that all variables meet the criteria for validity and reliability, confirming the suitability of the data for further analysis. Detailed outcomes of the validity and reliability tests are presented in the tables below, which clearly illustrate the relationships between the variables and their impact on employee performance. The data processing enables accurate conclusions, supporting the research objective of understanding factors influencing employee performance. The tables are systematically organized to facilitate clear comprehension and thorough analysis of the data.

The validity test aims to evaluate the accuracy and truthfulness of the research instrument in measuring the intended variables. An instrument is deemed valid when it accurately captures the constructs or questions defined within the study. This process ensures that the data collected align with the research objectives, providing a reliable foundation for further analysis. The validity test was conducted using SPSS version 27, with each variable Intellectual Capital (X_1), Behavioral Direction (X_2), Effort Level (X_3), and Persistence Level (X_4) assessed to confirm its measurement precision. The results, presented in Table 4.1 below, indicate that all items within the instrument meet the validity criteria, demonstrating their suitability for evaluating the relationship with Employee Performance (Y). These findings establish a robust basis for subsequent analyses, ensuring the integrity of the research outcomes. The table is structured to clearly display the validity results for each variable, facilitating a comprehensive understanding of the instrument's effectiveness.

Table 1. Validity Test Results.

Item	Pearson r	r Standar	Remark
X1.1	0.841	0.195	Valid
X1.2	0.542	0.195	Valid
X1.3	0.708	0.195	Valid
X2.1	0.653	0.195	Valid
X2.2	0.830	0.195	Valid
X2.3	0.749	0.195	Valid
X3.1	0.748	0.195	Valid
X3.2	0.742	0.195	Valid
X3.3	0.685	0.195	Valid
X4.1	0.752	0.195	Valid
X4.2	0.816	0.195	Valid
X4.3	0.853	0.195	Valid
Y1	0.651	0.195	Valid

Y2	0.774	0.195	Valid
Y3	0.626	0.195	Valid
Y4	0.703	0.195	Valid
Y5	0.860	0.195	Valid

Based on the validity test using Pearson correlation against the total score of each variable, all items show correlation values (r calculated) greater than the r table value of 0.195 ($n = 100$, $\alpha = 0.05$). This indicates that all items fall into the valid category. Items in Intellectual Capital (X1.1–X1.3), Direction of Behavior (X2.1–X2.3), Level of Effort (X3.1–X3.3), Level of Persistence (X4.1–X4.3), and Employee Performance (Y1–Y5) each show strong correlations with their respective total scores, with Pearson r values ranging from 0.542 to 0.860. Therefore, all instrument items are declared valid and suitable for further analysis.

Table 2. Validity Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
.938	17

The reliability test resulted in a Cronbach's Alpha value of 0.938 for 17 items in the research instrument. This value significantly exceeds the minimum threshold of 0.70, indicating a very strong internal consistency among the items in the questionnaire. With this result, the instrument used is deemed reliable for consistently measuring the intended constructs. The proven reliability assures that the measurement tool employed in the study maintains measurement stability, making it trustworthy for evaluating the relevant factors in alignment with the research objectives.

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
N		Unstandardized Residual
		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.15639085
Most Extreme Differences	Absolute	.184
	Positive	.184
	Negative	-.092
Test Statistic		.184
Asymp. Sig. (2-tailed) ^c		.073
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

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Table 4. Multicollinearity Test Results

Coefficients ^a			
Model	Collinearity Statistics		
	Tolerance	VIF	
1			
	<i>Intellectual Capital</i> (X1)	.127	7.883
	<i>Direction of Behavior</i> (X2)	.168	5.947
	<i>Level of Effort</i> (X3)	.127	7.895
	<i>Level of Persistence</i> (X4)	.236	4.238
a. Dependent Variable: Employee Performance (Y)			

Based on the multicollinearity test using Tolerance and Variance Inflation Factor (VIF), all independent variables show VIF values below the threshold of 10: Intellectual Capital (7.883), Direction of Behavior (5.947), Level of Effort

(7.895), and Level of Persistence (4.238). Since none exceed 10 and the Tolerance values for all variables are above 0.1, the regression model can be considered free from multicollinearity issues. This ensures that the relationships between independent variables are not too strong, allowing the regression coefficient estimates to remain valid and unaffected by multicollinearity.

Table 5. Heteroscedasticity Test Results

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.193	0.095	None	2.036	0.045
Intellectual Capital (X1)	0.1	0.019	1.17	-1.546	0.131
Direction of Behavior (X2)	-0.028	0.014	-0.39	-1.446	0.151
Level of Effort (X3)	-0.024	0.017	-0.326	-1.146	0.215
Level of Persistence (X4)	-0.054	0.012	-0.75	-0.446	0.751

The Glejser test results show significance values for each independent variable: Intellectual Capital (0.131), Direction of Behavior (0.151), Level of Effort (0.215), and Level of Persistence (0.751). Since all values are greater than 0.05, it can be concluded that the regression model does not suffer from heteroscedasticity, confirming that the homoscedasticity assumption holds. This means the variance of residuals remains consistent across the range of predicted values, which is essential for ensuring the reliability and validity of the regression model's parameter estimates. As a result, no issues related to varying residuals are present, which ensures the accuracy of the analysis outcomes.

Table 6. F-Test (Simultaneous Test) Results

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	318.569	4	79.642	3124.703	.000 ^b
Residual	2.421	95	.025		
Total	320.990	99			

a. Dependent Variable: Employee Performance (Y)

b. Predictors: (Constant), Level of Persistence (X4), Intellectual Capital (X1), Direction of Behavior (X2), Level of Effort (X3)

The ANOVA results show a significance value of 0.000, which is below 0.05, and an F value of 3124.703. This suggests that the independent variables Intellectual Capital (X1), Direction of Behavior (X2), Level of Effort (X3), and Level of Persistence (X4) have a significant combined effect on Employee Performance (Y).

Table 7. T-Test (Partial Test) Results

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.28	0.178	None	1.572	0.119
Intellectual Capital (X1)	0.125	0.036	0.087	3.466	0.001
Direction of Behavior (X2)	0.378	0.026	0.316	14.534	0.0
Level of Effort (X3)	0.427	0.032	0.337	13.474	0.0
Level of Persistence (X4)	0.378	0.022	0.313	17.069	0.0

Regression equation:

$$Y = 0.280 + 0.125 \cdot X1 + 0.378 \cdot X2 + 0.427 \cdot X3 + 0.378 \cdot X4$$

- 1) Intellectual Capital (X1): Coefficient = 0.125, t = 3.466, Sig. = 0.001. Intellectual Capital has a positive and significant effect on Employee Performance.
- 2) Direction of Behavior (X2): Coefficient = 0.378, t = 14.534, Sig. = 0.000. Direction of Behavior has a positive and significant effect on Employee Performance.
- 3) Level of Effort (X3): Coefficient = 0.427, t = 13.474, Sig. = 0.000. Level of Effort has a positive and significant effect on Employee Performance.

- 4) Level of Persistence (X₄): Coefficient = 0.378, t = 17.069, Sig. = 0.000. Level of Persistence has a positive and significant effect on Employee Performance.

Table 8. Determination Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996 ^a	.992	.992	.15965

a. Predictors: (Constant), *Level of Persistence* (X₄), *Intellectual Capital* (X₁), *Direction of Behavior* (X₂), *Level of Effort* (X₃)

The regression analysis shows an Adjusted R Square value of 0.992, meaning that 99.2% of the variation in Employee Performance (Y) can be explained collectively by Intellectual Capital (X₁), Direction of Behavior (X₂), Level of Effort (X₃), and Level of Persistence (X₄). The remaining 0.8% is explained by other variables outside the model. This very high adjusted R square indicates that the regression model has strong explanatory power and high relevance to the studied phenomenon.

4.2 Discussion

Based on the research findings and the results of the analysis regarding the influence of Intellectual Capital, Direction of Behavior, Level of Effort, and Level of Persistence on Employee Performance as an effort to improve productivity at PT Global Offset Sejahtera using SPSS software, the discussion can be interpreted as follows:

- 1) The Influence of Intellectual Capital (X₁) on Employee Performance (Y)
The hypothesis testing demonstrates that Intellectual Capital has a positive and significant effect on employee performance, with a regression coefficient of 0.125 and a significance value (p-value) of 0.001 < 0.05. This indicates that an increase in employees' intellectual capital will lead to improved performance. Individuals with high intellectual capital tend to be more competent and capable of making greater contributions to the company's achievements. For instance, an employee at PT Global Offset Sejahtera with in-depth knowledge of the latest digital printing technologies and the ability to operate the machines efficiently will produce higher-quality prints within a shorter time frame. Such knowledge constitutes a valuable asset that directly enhances productivity and work quality, ultimately contributing positively to overall performance. (Butt *et al.*, 2019)
- 2) The Influence of Direction of Behavior (X₂) on Employee Performance (Y)
The hypothesis test results indicate that the Direction of Behavior variable has a positive and significant effect, with a regression coefficient of 0.378 and a p-value of 0.000. This suggests that appropriately directed behavior can significantly improve individual performance within the organization. Employees who have a clear understanding of the company's goals and how their contributions align with achieving those goals tend to demonstrate better performance. For example, if the company sets a target to reduce production waste, employees who proactively seek ways to save raw materials and minimize printing errors demonstrate the correct behavioral direction. This is not merely about working but working with a clear and purposeful direction, ensuring that every step taken contributes directly to the company's objectives. (Alves & Alves, 2015)
- 3) The Influence of Level of Effort (X₃) on Employee Performance (Y)
The Level of Effort variable also has a positive and significant effect on Employee Performance, with a regression coefficient of 0.427 and a p-value of 0.000. This indicates that the greater the effort employees put into completing tasks, the better their performance outcomes will be. Highly motivated and committed employees tend to demonstrate higher levels of effort, which in turn positively impacts performance. For example, when faced with a large printing order and a tight deadline, an employee willing to work overtime, ensure every detail is accurate, and avoid procrastination shows a high level of effort. This exceptional effort leads to faster task completion that meets the required standards, directly improving performance (ASSEFA, 2025).
- 4) The Influence of Level of Persistence (X₄) on Employee Performance (Y)
The Level of Persistence variable has a positive and significant effect on Employee Performance, with a regression coefficient of 0.378 and a p-value of 0.000. These results indicate that persistence in overcoming work obstacles is a key factor in supporting improved performance. Employees with a high level of persistence continue to seek solutions and strive to achieve goals despite difficulties. For example, if a printing machine experiences technical problems, persistent employees will not simply give up or wait for technicians. Instead, they will attempt to find temporary solutions, identify the root cause of the issue, and coordinate with other teams to minimize the impact on the production schedule. Such persistence ensures that work progresses despite obstacles, maintaining stable performance and even improving it under challenging circumstances (Asiaei & Jusoh, 2015).
- 5) The Joint Influence of Intellectual Capital (X₁), Direction of Behavior (X₂), Level of Effort (X₃), and Level of Persistence (X₄) on Employee Performance (Y)
The simultaneous analysis shows that the four variables have a positive and significant effect on employee

performance, with a significance level of $0.000 < 0.05$. Furthermore, the Adjusted R Square value was 0.992, indicating that 99.2% of the variation in employee performance (Y) can be jointly explained by the four variables. The high Adjusted R Square value confirms that the regression model provides a very strong and relevant explanation of the phenomenon under study. The synergy of these four components—Intellectual Capital, Direction of Behavior, Level of Effort, and Level of Persistence—forms a solid foundation for enhancing employee performance while simultaneously creating sustainable competitive advantage for PT Global Offset Sejahtera. (Mention, 2012).

5 | CONCLUSIONS AND FUTURE WORK

Based on the research findings and analysis conducted on the influence of Intellectual Capital, Direction of Behavior, Level of Effort, and Level of Persistence on Employee Performance as an effort to improve productivity at PT. Global Offset Sejahtera, several key conclusions can be drawn.

- 1) The hypothesis testing results confirm that Intellectual Capital has a significant positive contribution to employee performance. This indicates that the enhancement of employees' knowledge, skills, and innovation directly contributes to improved performance.
- 2) Direction of Behavior exerts a significant positive effect on performance, suggesting that employee behaviors aligned with the company's goals and strategies effectively enhance both individual and organizational performance.
- 3) Level of Effort is proven to have a significant positive effect on performance. In other words, the intensity of effort and dedication demonstrated by employees in their work are key factors in improving performance.
- 4) Level of Persistence contributes significantly and positively to employee performance, demonstrating that employees' ability to remain resilient and focused when facing challenges and obstacles is crucial for achieving optimal performance outcomes.
- 5) Collectively, the four variables Intellectual Capital, Direction of Behavior, Level of Effort, and Level of Persistence simultaneously exert a very strong and significant influence on employee performance at PT. Global Offset Sejahtera, explaining up to 99.2% of the variation in performance. This demonstrates that the proposed model is highly relevant, and these factors are the primary drivers of employee performance success within the company.

REFERENCES

- Ahuja, R. (2011). *Research methods*. Rawat Publications.
- Alves, J. R. X., & Alves, J. M. (2015). Production management model integrating the principles of lean manufacturing and sustainability supported by the cultural transformation of a company. *International Journal of Production Research*, 53(17), 5320–5333. <https://doi.org/10.1080/00207543.2015.1050445>
- Asiaei, K., & Jusoh, R. (2015). A multidimensional view of intellectual capital: The impact on organizational performance. *Management Decision*, 53(3), 668–697. <https://doi.org/10.1108/MD-11-2014-0656>
- ASSEFA, M. (2025). *The effect of employee's motivation on job performance: The case of Central Printing Press PLC*. St. Mary's University.
- Butt, M. A., Nawaz, F., Hussain, S., Sousa, M. J., Wang, M., Sumbal, M. S., & Shujahat, M. (2019). Individual knowledge management engagement, knowledge-worker productivity, and innovation performance in knowledge-based organizations: The implications for knowledge processes and knowledge-based systems. *Computational and Mathematical Organization Theory*, 25(3), 336–356. <https://doi.org/10.1007/s10588-019-09272-4>
- Dereli, D. D. (2015). Innovation management in global competition and competitive advantage. *Procedia-Social and Behavioral Sciences*, 195, 1365–1370. <https://doi.org/10.1016/j.sbspro.2015.06.250>
- Edvinsson, L., Mas, F. D., Pablos, P. O. De, Massaro, M., & Dumay, J. (2022). From a value-based knowledge economy to a worth economy. New reflections and perspectives on intellectual capital research. *International Journal of Learning and Intellectual Capital*, 19(1), 83–101. <https://doi.org/10.1504/IJLIC.2022.118459>

- Gogan, L. M., Artene, A., Sarca, I., & Draghici, A. (2016). The impact of intellectual capital on organizational performance. *Procedia-Social and Behavioral Sciences*, 221, 194–202. <https://doi.org/10.1016/j.sbspro.2016.05.115>
- Goundar, S. (2012). Research methodology and research method. *Victoria University of Wellington*, 1(1), 1–47. <https://doi.org/10.13140/RG.2.1.4578.2086>
- Mention, A.-L. (2012). Intellectual capital, innovation, and performance: A systematic review of the literature. *Business and Economic Research*, 2(1), 1–37. <https://doi.org/10.5296/ber.v2i1.1495>
- Paoloni, P., Modaffari, G., Ricci, F., & Della Corte, G. (2023). Intellectual capital between measurement and reporting: A structured literature review. *Journal of Intellectual Capital*, 24(1), 115–176. <https://doi.org/10.1108/JIC-09-2022-0285>
- Patel, M., & Patel, N. (2019). Exploring research methodology. *International Journal of Research and Review*, 6(3), 48–55.
- Patten, M. L. (2016). *Understanding research methods: An overview of the essentials*. Routledge.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.047>
- Thatrak, D. (2021). Human capital orientation, employee creativity development, organizational innovation capabilities, and outstanding performance of SMEs businesses in Thailand. *International Journal of Economics and Business Administration*, 9(2), 126–142.
- Walliman, N. (2021). *Research methods: The basics*. Routledge.
- Yuliansyah, Y., & Amelia, Y. (2018). The effect of ownership structure on firm performance (Study at telecommunication companies listed on ASEAN region in 2016-2017).

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