







“The effect of human capital on organizational performance in the service industry 4.0: Mediation analysis from Indonesia”

AUTHORS	Masyhuri 
	
	Achmad Sudiro 
	Sri Palupi Prabandari 
	Desi Tri Kurniawati 
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Masyhuri, M.M., Doctoral Candidate,
Department of Management, Faculty
of Economics and Business, Brawijaya
University, Indonesia.

Achmad Sudiro, Dr., Professor,
Department of Management, Faculty
of Economics and Business, Brawijaya
University, Indonesia.

Sri Palupi Prabandari, Ph.D., Assistant
Professor, Department of Management,
Faculty of Economics and Business,
Brawijaya University, Indonesia.
(Corresponding author)

Desi Tri Kurniawati, Dr., Assistant
Professor, Department of Management,
Faculty of Economics and Business,
Brawijaya University, Indonesia.



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Masyhuri (Indonesia), Achmad Sudiro (Indonesia), Sri Palupi Prabandari (Indonesia),
Desi Tri Kurniawati (Indonesia)

THE EFFECT OF HUMAN CAPITAL ON ORGANIZATIONAL PERFORMANCE IN THE SERVICE INDUSTRY 4.0: MEDIATION ANALYSIS FROM INDONESIA

Abstract

The service industry is currently facing the era of Industry 4.0, which results in an increasing need for talents who master information and technology to increase company productivity. Innovation is one of the strategies that service companies need to improve in order to compete with other companies. Organizational learning is also a company's effort that is used to determine and meet the increasingly diverse needs of consumers to improve company performance. This study aims to investigate the role of innovation and organizational learning as mediating variables between human capital and organizational performance. The sample consisted of 305 managers in the service industry of Indonesia using a purposive sampling technique, with the minimum sample size determined using GPower software. Data were collected using a self-reported questionnaire distributed online via a Google form. Furthermore, data were analyzed using structural equation modeling partial least squares with the SmartPLS 3 software. The results reveal that human capital significantly affects organizational performance, innovation, and organizational learning. Then, innovation and organizational learning have a significant effect on organizational performance. Furthermore, innovation and organizational learning act as mediators between human capital and organizational performance. These findings shed new light of the importance of effective human capital management in improving organizational performance. Furthermore, innovation and organizational learning are variables that can bridge the two relationships in the service industry.

Keywords

innovation, organizational learning, human capital,
performance, service industry

JEL Classification

J24, O34, L25

INTRODUCTION

In the era of Industry 4.0, service industry activities in the 21st century experience more vigorous development strides, particularly on the current trends, such as big data, blockchain, urban logistics, global supply chains, and value-added services. The logistics industry holds an 80% opportunity share of global transportation in the international market and plays a crucial role in the worldwide supply chain (UNCTAD, 2019). More specifically, in Indonesia, the competition in the logistics business tends toward an oligopoly market structure, with seven companies dominating 80% of the market (Puspa, 2022). According to the World Bank (n.d.), Indonesia has upgraded to a country with upper-middle-income status, evidenced by a robust economic growth rate of 5.3% in 2023. Many service companies in the country have yet to adopt digital technologies, such as radio-frequency identification (RFID), IoT, and sensors, to provide information on processing and monitoring (Hajoary et al., 2023). At present, private companies dominate the logistics sector. Despite state-owned enterprises with significant assets, Indonesia's service industry can-

not fully capitalize on this opportunity. This is evident from its relatively small market share of only 8% compared to other logistics services. Indonesia's service industry faces tough competition from private courier companies, and despite its substantial advantages, it has yet to capture a larger market share (Azhari & Supriyatin, 2020). One of Indonesia's service industry transformation efforts involves its human resources, which aim to address the increasingly competitive business landscape and develop business potentials focusing on increasing market share and company reputation (Aditya et al., 2023).

Human capital is a crucial factor in improving organizational performance, especially in the service industry (Alnoor, 2020; Huang et al., 2021; Mihardjo et al., 2021; Samad, 2020; Tran et al., 2020). However, this finding has been rebutted empirically by Witasari and Gustomo (2020) and López Rodríguez and Serrano Orellana (2020). They evidenced that human capital does not significantly affect organizational performance. From inconsistency and a lack of previous studies on the mediating role of innovation and organizational learning, it is essential to assess public companies from a manager's perspective.

1. LITERATURE REVIEW AND HYPOTHESES

Organizations consider human capital fundamental to their success. In any organization, human capital is a significant component that incorporates knowledge, skills, competencies, innovation, and the workforce's ability to run the organization. Moreover, possessing the appropriate human capital cultivates a positive attitude of competence and intellectual agility (Holborow, 2018). Kottaridi et al. (2019) stated that human capital is science, skill, and workforce ability. Organizations own human capital through a good working relationship with all staff. Workforces contribute human capital to organizations that are developing through experience and training. Individuals with talent, behavior, and personal energy contribute to shaping the human capital they bring to work (Davenport, 1999). Employees possess this capital to determine its utilization's time, manner, and place. In other words, they have the power to determine whether there will be a mutual exchange of value or allow their assets to be exploited by their owners.

The advancement of human capital in the Industry 4.0 era is known as human capital 4.0, where management agility and flexibility significantly influence its formation; it occurs to anticipate the business disruption where successful organizations are no longer defined by their size and power but by adaptability to market conditions and a highly dynamic environment. This is also due to economic shifting, which causes a severe shock that results in VUCA (volatility, uncertainty, complexity, and ambiguity), which causes established or conven-

tional businesses to fall while giving way to new internet-based business models (Kagama Human Capital, 2021).

Organizational performance describes an organization's ability to perform critical activities to achieve its vision and mission (Keban & Yermias, 2004). An organization is inseparable from an individual's and a group's existence. Individuals are a small part of a group, while a group is a collection of individuals. Thus, individuals and groups can improve organizational performance. Various financial and non-financial metrics for success can evaluate organizational performance (Simon et al., 2015). Performance is described through market, financial, and non-financial performance (Cegarra-Navarro et al., 2016). Abdallah and Al-Ghwayeen (2020) adopted indicators from Beyene (2015), including profitability, sales growth, competitive position, customer satisfaction, and market share, to study business performance. Banking profitability calculations are explained through measurements such as net interest margin, return on assets, and equity (Zarrouk et al., 2016; Tan, 2016).

The role of human capital in increasing organizational performance has been extensively studied. In the service sector, Tran et al. (2020) found that human capital positively and significantly affects company performance in Vietnam. AlQershi et al. (2022) and Alnoor (2020) showed that human capital significantly affects company performance using indicators of employee knowledge, skills, abilities, attitudes, and intellectual agility in SMEs in Yemen and Iraq. Then, Seclen-Luna et al. (2020)

researched 584 manufacturing industry employees in Peru and found that human capital has high- to medium- and low-level education indicators. In addition, Imran and Atiya (2020) discovered the same results after examining 400 service sector employees in Oman. Finally, Chen et al. (2021) examined human capital and its effect on company performance in 213 companies in Taiwan. The study used indicators of ability, expertise, and knowledge level and their direct impact on company performance. However, there is still a dearth of previous research on the mediating role of innovation and organizational learning.

Organizational innovation is the aptitude to create and put-on modern ideas and behaviors (Jia et al., 2018). It is essential to increase productivity and improve business performance. According to Kwon and Cho (2016), innovation is attainable through introducing new products, organizational structures, management practices, or positive changes in organizational civilization. Organizations that execute innovation can be seen from the organizational structure perspective as aspects related to the level of centralization and formalization that affect the stream of innovative concepts. There are several ways (Prasad & Junni, 2016) to observe organizational innovation. One can use the organizational structure perspective as aspects related to the level of centralization and formalization that affect the flow of innovative ideas; additionally, how organizations change perspectives as a practice are followed to cope with a change and overcome market endurance to change.

The literature has led research on human capital and its characteristics for developing competitiveness and improving employee performance for goal achievement. Among these characteristics, innovation has been identified as particularly effective and influential in gaining a competitive advantage (Abbas et al., 2018). According to Sutanto (2017), innovation is an enabler of innovative processes to create something new (i.e., products or services), utilize new technologies, and expand new concepts. Furthermore, knowledge about innovation requires more communication and interaction between scholars, affected stakeholders, and managers (Padilla-Meléndez & Garrido-Moreno, 2012). In this way, new ideas, processes, and interactions can be economically and commercially beneficial.

Therefore, organizational and university leaders and managers must be aware of the different innovation paths.

The dynamic capability theory explains that the resources and capabilities of a firm, as well as the process of learning, having knowledge, coordinating, and reconfiguring resources within the firm and concerning the external environment, create a competitive advantage (Teece et al., 1997). Innovation contributes to a firm's competitive advantage. Therefore, many scholars seek to understand how to strengthen a firm's innovation ability, as this will make the firm more competitive and perform better financially (Henderson & Clark, 1990). Companies capable of innovation have more potential to identify something new, such as products and services, improve processes faster, per market needs, and seize opportunities more effectively than non-innovative companies (Jimenez-Jimenez et al., 2008). For example, Aboramadan et al. (2020) proved the significance of innovation in Palestine's banking sector, highlighting organizational innovation as a tool to enhance banking performance.

Rahman (2023) examined the relationship between innovation and organizational performance. Organizational innovation is an essential factor in organizational performance. Soomro et al. (2021) stated that the consideration of organizational innovation focuses on increasing competitive advantage. As organizations must innovate as an essential requirement to gain an advanced level of accomplishment, remembering and dealing with organizational innovation is necessary. The results can strengthen the knowledge of different strategies in determining the elements and competencies required to achieve and satisfy organizational capabilities, thereby improving organizational performance.

Organizations find the benefit of good human capital management through recruitment (Wang & Zatzick, 2019). By regularly adding new managers and professionals, organizations can ensure a continuous flow of new knowledge and perspectives for product and process innovation. Almutirat (2022) suggests that organizations must increase their awareness of the necessary talent training and capacity building to improve employees' innovation ability. In addition, human capital can increase innovation in small and medium enterprises

(Kusumawijaya & Astuti, 2023). Most scholars defined organizational learning as a transformation in its science that occurs as a purpose of impression (Fiol & Lyles, 1985). The science includes exponent factual science and procedural knowledge or skills and routines. Organizational learning is essential due to the demands on today's organizations to provide faster, cheaper, and more effective learning to a changing workplace and a mobile workforce dramatically affected by daily changes in an uncertain environment (Schwandt & Marquardt, 1999).

Oh and Kuchinke (2017) examined the role of learning stock and learning flow on the perceived performance of the organization. The possibility effects of learning stock and learning flow are notable predictors of organizational performance because organizational learning encompasses the organization's ability to cope with business changes. Learning stock is a study that occurs within a level, and it refers to the collective authorities, norms, values, and knowledge that exhibit the prospect capacity of an organization (Bontis et al., 2002).

Organizational learning is used as a mediating variable for the following reasons. First, organizational learning aims to improve quantity and quality performance, allowing the company to increase its sales volume, gain more support, retain old customers, and acquire new ones. In addition, it develops faster, enabling the company to strengthen its competitive advantage position further and improve its results. Second, according to İpek (2019), there still needs to be more discussions about organizational learning, especially as a mediator or moderator, so further research is required. Organizational learning is an antecedent of organizational performance (Soomro et al., 2021). Learning is repeating and experimenting to perform tasks better and faster. In a company context, learning has several key characteristics. First, learning involves organizational and individual skills (Levinthal & March, 1993). The individual's relevant skills are valued according to employee performance, particularly in the organizational setting. The learning process is intrinsically social and collaborative, and it occurs through imitating behaviors seen in individuals like teachers and students or experts and learners and through the cooperative effort to comprehend complex issues. Learning necessitates shared communication and synchronized exploration.

Second, the organizational knowledge generated from the activities of all employees exists in new patterns of work, new daily activities, or new logic of the organization. Routines are schemes of interaction that reflect the practical completion of distinctive matters. These schemes of interplay exist in cluster behavior, although particular routine behaviors may exist in individual behavior. In addition, the concept of dynamic capabilities as a coordinated management process unlocks the potential for learning among organizations. Patky (2020) found that human capital affects organizational learning. The primary outcome of organizational learning is firm productivity. This finding supported the idea that organizational learning can improve organizational performance (Obeso et al., 2020; Talari & Khoshroo, 2022; Berndt et al., 2023). Improved organizational performance is related to organizational learning (Tong, 2020). Kordab et al. (2020) concluded that organizational learning is essential in transforming the information society into a knowledge society. It influences the development of individual competencies (knowledge, skills, and abilities) through knowledge management practices, realizing the organization's knowledge strategy, creating value between the organization and its customers, and creating a sustainable organization.

This study aims to investigate the role of human capital in enhancing organizational performance by mediating innovation and organizational learning in Indonesia's services industry. In addition, this paper attempts to fill the gaps in previous research, particularly the persisting inconsistencies in research findings, by partially adding two mediating variables. Based on prior theoretical empirical studies and conceptual framework (Figure 1), this study proposes the following hypotheses:

- H1: Human capital influences organizational performance.*
- H2: Organizational innovation mediates the effect of human capital on organizational performance.*
- H3: Organizational learning mediates the effect of human capital on organizational performance.*

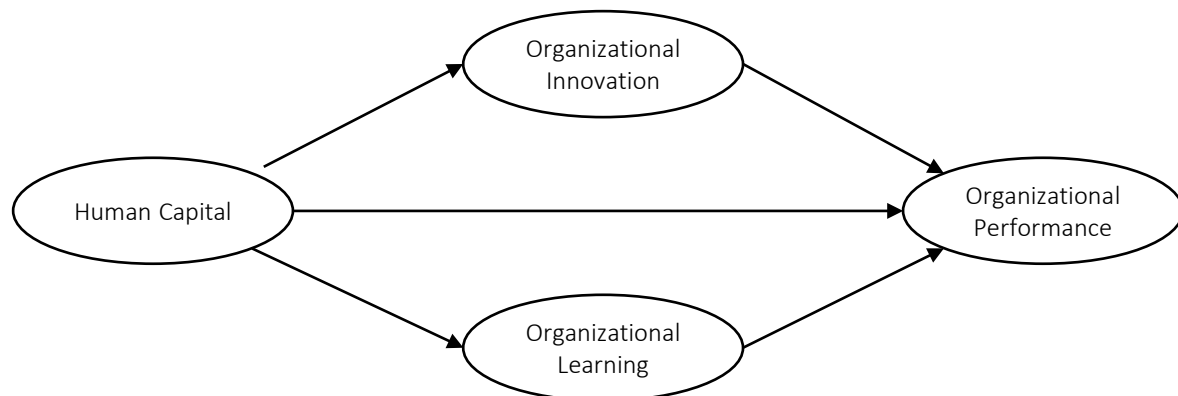


Figure 1. Conceptual framework

2. METHOD

This study focused on the service industry in Indonesia, employing purposive sampling, specifically targeting managers as the respondents. Based on GPower calculations, the minimum number of respondents required was fulfilled, with an error rate of 5%. Three hundred and five managers were selected to complete an online questionnaire. The selection of managerial staff as the research sample is based on the unit of analysis for this study, which explicitly examines organizational performance.

The data analysis employed structural equation modeling (SEM) partial least squares (PLS) with the SmartPLS 3.0 software. In addition, due to the incorporation of dimension in measuring the human capital, both first-order and second-order techniques were used in the testing process. Furthermore, two analysis methods were applied: the algorithm was used to assess the validity and reliability of constructs, and bootstrapping analysis was utilized to test the hypotheses, both directly and indirectly (mediation) (Hair et al., 2019).

The human capital variable involved nine items from (Singh et al., 2022). This study gathered these items through a focus group discussion (twelve managers divided into two groups). These items covered various aspects of human capital, including technological skills, educational level, creativity, work experience, service orientation, adaptability, concern for ethics, relationships, and communication. Next, organizational performance was measured using the scale developed by Shraah et al. (2022), which consisted of thir-

teen items. Meanwhile, to assess organizational innovation, this study adopted eleven items from Wongsansukcharoen and Thaweepaiboonwong (2023). Lastly, the organizational learning variable incorporated nine items adapted from Schumpeter (1934). The assessment items employed a Likert scale ranging from one to five.

3. RESULTS

The analysis targeted the service industry, which has a history of 275 years of operating in the services and logistics sector in Indonesia. Despite having substantial assets and offices spread across Indonesia, they cannot guarantee that they will be able to avoid obstacles when competing with relatively young private companies. Therefore, the primary issue lies in the company's performance, with one of the critical indicators being its market share. However, the company's market share is significantly lower compared to its competitors from private companies.

Table 1. Characteristics of respondents

Individual Characteristics		Frequency	%
Gender	Male	208	68.2
	Female	97	31.8
Age	<30 years	45	14.8
	31-40 years	137	44.9
	41-50 years	73	23.9
	>51 years	50	16.4
Educational Background	Senior High School	110	36
	Diploma	70	23
	S1/Undergraduate	125	41
Job Tenure	<10 years	99	32.5
	11-20 years	112	36.7
	>21 years	94	30.8

Table 1 shows that most respondents are male (68.2%) and fall within the age range of 31-40 years (44.9%). It can be inferred that most managers in Indonesia's service industry are in the productive age range. Subsequently, based on their educational background, the highest level of education attained by most managers is bachelor's and postgraduate level, with 41%. 36.7% of managers in Indonesia's industry service have considerable work experience ranging from eleven to twenty years. Most managers have worked for less than ten years (32.5%). These findings suggest a pattern of manager turnover, especially seen in the length of employment.

Table 2. Validity and reliability results

Construct	Items	Outer Loadings	AVE	Composite Reliability
Cognitive Skill	CS1	0.868	0.737	0.894
	CS2	0.865		
	CS3	0.842		
Behavioral Skill	BS1	0.800	0.671	0.860
	BS2	0.850		
	BS3	0.807		
Emotional Skill	ES1	0.833	0.745	0.898
	ES2	0.890		
	ES3	0.866		
Organizational Performance	OP1	0.828	0.659	0.962
	OP2	0.854		
	OP3	0.824		
	OP4	0.758		
	OP5	0.831		
	OP6	0.789		
	OP7	0.773		
	OP8	0.808		
	OP9	0.827		
	OP10	0.828		
	OP11	0.834		
	OP12	0.801		
	OP13	0.796		
Organizational Innovation	OI1	0.766	0.628	0.949
	OI2	0.808		
	OI3	0.778		
	OI4	0.806		
	OI5	0.822		
	OI6	0.790		
	OI7	0.741		
	OI8	0.784		
	OI9	0.839		
	OI10	0.829		
	OI11	0.749		

Construct	Items	Outer Loadings	AVE	Composite Reliability
Organizational Learning	OL1	0.772	0.696	0.954
	OL2	0.858		
	OL3	0.850		
	OL4	0.790		
	OL5	0.869		
	OL6	0.821		
	OL7	0.837		
	OL8	0.848		
	OL9	0.859		

Table 2 shows outer loading values exceeding the threshold of 0.70 for all utilized items. This number suggests that all items effectively convey the latent variables and have been comprehended by the respondents, thus confirming their validity. Furthermore, discriminant validity testing using the average variance extracted (AVE) value demonstrated that each latent variable has an AVE value greater than 0.5. Therefore, all latent variables possess valid items. Next, each latent variable has a composite reliability value greater than 0.70. Thus, all variables have reliable statement items if used in research on several occasions. Finally, Table 3 shows that the Fornell-Larcker criterion value demonstrates that the discriminant validity testing has met the requirements, namely each construct has the most significant value compared to the other constructs (Hair et al., 2019).

The second-order confirmatory factor analysis demonstrated that all variables, composed of multiple indicator constructs, can be considered valid and reliable. Therefore, it allows for further analysis to be conducted. Afterward, a latent construct is analyzed for its indicators. This analysis aims to identify indicators of a variable and assess the extent to which these indicators can explain the latent variable. Table 4 provides the results of testing indicator constructs against latent constructs. In addition, hypothesis testing was done with a significance level of 5% and a cut of 1.96. Based on Table 4, the cognitive, behavioral, and emotional skills can form the human capital variable because they have a t -statistic > 1.96 and a p -value < 0.05 . Hence, H1 is accepted: cognitive, behavioral, and emotional skills are indicators of forming human capital.

Table 3. Fornell-Larcker criterion

Latent Variables	1	2	3	4	5	6	Mean
1. Cognitive Skill	0.819						4.38
2. Behavioral Skill	0.796	0.858					4.41
3. Emotional Skill	0.666	0.605	0.863				4.47
4. Organizational Innovation	0.541	0.492	0.579	0.793			4.27
5. Organizational Learning	0.647	0.624	0.576	0.728	0.812		4.18
6. Organizational Performance	0.533	0.479	0.555	0.768	0.783	0.834	4.28

Table 4. Second-order construct

Path	Path Coefficient	t-values	p-values	Result
Cognitive Skill → Organizational Performance	0.901	70.526	0.000	Accepted
Behavioral Skill → Organizational Performance	0.919	92.971	0.000	Accepted
Emotional Skill → Organizational Performance	0.851	40.439	0.000	Accepted

Table 5. R-square

Variables	R-Square
Organizational Innovation	0.368
Organizational Learning	0.348
Organizational Performance	0.751

The values of Q-square are estimated as follows:

$$Q^2 = 1 - (1 - R^2_1) \cdot (1 - R^2_2) \cdot (1 - R^2_n). \quad (1)$$

$$Q^2 = 1 - (1 - 0.368) \cdot (1 - 0.348) \cdot (1 - 0.751), \quad (2)$$

$$Q^2 = 1 - 0.10260 = 0.8974 = 89.74\%. \quad (3)$$

Furthermore, after testing validity and reliability (see Table 5), the predictive relevance analysis was implemented using the R-square value. The statistical results in Table 5 show that the research model accounts for 36.8% of organizational innovation, 34.8% of organizational learning, and 75.1% of organizational performance. Then, a value of 89.74% is obtained using the Q-square formula. Therefore, this research model has good predictive relevance value.

The direct influence between human capital and organizational performance is statistically significant (see Table 6), as shown by a t-statistic (6.686)

and a *p*-value (<0.001). Human capital has a significant impact on enhancing organizational performance. Moreover, these findings exhibit a positive correlation between the quality of a company's human capital and its overall performance. If human capital management is overlooked, it can adversely affect organizational performance, as individuals are the principal resource within a company. Therefore, H2 is accepted: human capital substantially affects organizational performance.

The correlation between human capital and organizational innovation is statistically significant, as indicated by a t-statistic (13.583) and a *p*-value (<0.001). Effective human capital management can enhance organizational innovation by utilizing individuals' inherent capacity to develop and implement creative concepts within the company. Thus, H3 is accepted: human capital has a significant effect on organizational innovation. Furthermore, a t-statistic value for the influence of human capital on organizational learning is 143.834, with a *p*-value < 0.001. The findings demonstrate a statistically significant correlation between human capital and organizational learning. Effective management of human capital can enhance overall organizational learning. Therefore, H4 is accepted: human capital has a significant effect on organizational learning.

Table 6. Hypotheses testing (direct effects)

Path	Path Coefficient	t-statistic	p-value	Result
Human Capital → Organizational Performance	0.303	6.686	0.000	Accepted
Human Capital → Organizational Innovation	0.607	13.583	0.000	Accepted
Human Capital → Organizational learning	0.590	14.834	0.000	Accepted
Organizational Innovation → Organizational Performance	0.217	3.199	0.001	Accepted
Organizational Learning → Organizational Performance	0.329	5.059	0.000	Accepted

Table 7. Mediation effect (indirect effects)

Path	Sobel Test	t-statistic	Result
Human Capital → Organizational Innovation → Organizational Performance	2.561	1.96	Partial Mediation
Human Capital → Organizational Learning → Organizational Performance	3.405	1.96	Partial Mediation

The statistical analysis shows that organizational innovation significantly impacts organizational performance, as shown by a t-statistic (3.199) and a *p*-value (<0.001). A positive value on the patch coefficient indicates that the better the innovation obtained, the more it can optimally improve company performance. Thus, H5 is accepted: organizational innovation significantly influences organizational performance. Furthermore, the statistical analysis suggests that organizational learning has a significant and positive impact on organizational performance, as demonstrated by a t-statistic (5.059) and a *p*-value (<0.001). A positive patch coefficient indicates that the application of learning positively affects organizational performance, resulting in optimal improvement. Hence, H6 is accepted: organizational learning significantly affects organizational performance.

Based on Baron and Kenny (1986), the mediation mechanism involves three conditions. First is the direct influence of the independent variable on the dependent variable. Second is the direct effect of the independent variable on the mediating variable. Third is the effect of the mediating variable on the dependent variable. These three conditions have met the criteria for hypotheses testing. Table 7 indicates that the Sobel test value for the mediating role of the organizational innovation variable is 2.561, exceeding the threshold of 1.96.

Moreover, Table 7 shows that organizational innovation partially mediates the relationship between human capital and organizational performance. This argument is proven by the significant influence of human capital on both organizational performance and organizational innovation and the significant influence of innovation on organizational performance. Therefore, H7 is accepted. Furthermore, the Sobel test value for the mediating role of organizational learning is 3.405, exceeding the threshold of 1.96. This value proves that organizational learning mediates the relationship between human capital and organizational performance. Therefore, H8 is accepted. Thus, human capital substantially directly affects organization-

al performance and learning. Likewise, organizational learning significantly affects organizational performance, implying that organizational learning partially mediates this relationship.

4. DISCUSSION

This investigation discovered that cognitive, behavioral, and emotional skills can be accurate indicators for developing human capital, following focus group discussions and confirmatory factor analysis. These findings indicate a valuable contribution to the existing body of research, as they shed light on a novel aspect within the field. Notably, the study defines that human capital formation can be attributed to cognitive, behavioral, and emotional skills. This insight is significant for human capital management within the courier and logistics services industry, especially in developing countries like Indonesia. Cognitive skills cover the abilities of managers in the fields of information and technology. These skills align with the company's commitment to digitalization, necessitating the recruitment of young people proficient in technology and information to reinforce the company's vision and mission.

Moreover, it is noteworthy that the educational level is also part of cognitive abilities, emphasizing that companies must consider the educational background when promoting managers. Furthermore, creativity is crucial to cognitive skills, including dealing with issues using manager creativity. Meanwhile, behavioral skills encompass practical experience, particularly in logistics, because companies are gradually shifting their business operations to prioritize logistics over courier services. In addition, service orientation is essential for courier and logistics service companies, as they prioritize providing excellent service. Lastly, adaptability refers to the capacity to quickly adapt to drastic shifts in the workplace. Every company must prioritize customer-centricity, which necessitates specialized customer management to attain a competitive advantage.

Therefore, emotional skills, which encompass ethical awareness, strong customer relations, and practical communication abilities, are also crucial for managing human capital effectively.

This study suggests that effective human capital management can enhance organizational performance and achieve higher efficiency, with the mediating role of organizational innovation and organizational learning in courier and logistics service companies. Moreover, enhanced human capital management can also lead to enhanced organizational performance. These results align with Braunerhjelm and Lappi (2023), Hu et al. (2023), and Samson and Bhanugopan (2022). Furthermore, service companies depend on effective human capital management to enhance performance. These findings support Raza and Khan (2022), who discussed that human capital is the most crucial element for enhancing company achievement, as it can significantly contribute to its success. However, besides human capital, service company managers can also improve organizational performance by optimizing human resources.

The statistical analysis exhibits that human capital can increase organizational innovation. These findings align with Kusumawijaya and Astuti (2023), Almutirat (2022), and Munawar et al. (2022). Human capital management plays an essential role in fostering innovation within organizations. Innovation stems from the ideas of individual managers, which eventually contribute to the innovative skills of the firm. Besides, the findings suggest that focusing on managers' cognitive, behavioral, and emotional skills during recruitment can significantly enhance organizational innovation.

The findings further highlight that good human capital management increases optimal organizational learning. These findings are in line with Patky (2020), Aboobaker et al. (2023), and Peng et al. (2023). Effective human capital management plays an essential part in facilitating organizational learning. This notion arises because organizations necessitate talented individuals willing to contribute to information sharing and acquisition within the workplace. Besides, effective organizational learning requires transferring knowl-

edge across various positions and roles. Hence, exchanging experiences with senior employees is crucial for achieving successful learning outcomes within a company (Berndt et al., 2023).

The findings reveal a positive correlation between organizational innovation and organizational performance. This finding corresponds to Rahman (2023), Liu et al. (2023), and Barlatier et al. (2023), who support the idea that innovation has a positive impact on company performance. Their findings focus on product innovation, encompassing the introduction of new products and the launch of Posppay financial service products. Besides, there is also marketing innovation, which includes introducing an innovative customer relationship management application called Superapps and rebranding a new logo. Another innovation service is incorporating various strategies such as integrating e-bikes for delivery transportation, implementing "war rooms" (control, command and crisis center) for employee supervision, modernizing material handling equipment, utilizing artificial intelligence as a robotic sorting machine, and adopting a policy of operating seven days a week. These innovations enhance performance based on statistical data.

Statistical calculation shows that organizational learning has a substantial impact on organizational performance. This finding aligns with Obeso et al. (2020), Talari and Khoshroo (2022), and Berndt et al. (2023), all of whom believe that effective organizational learning can significantly enhance company performance. These studies specifically examine the implementation of continuous learning opportunities, self-development opportunities, training provisions, encouraging a collaborative environment, promoting knowledge sharing, enhancing problem-solving skills, developing knowledge-sharing systems, integrating all internal resources, and establishing a learning culture to drive significant improvements in organizational performance.

Another new finding in this study relates to the significant mediating role that organizational innovation plays between human capital and organizational performance. This aspect has yet to be explored by scholars, thereby demonstrating the importance of organizational innovation in this

regard. Enhancing the management of human resources in service-oriented companies can lead to a growth in organizational innovation, which in turn can benefit overall organizational performance. In addition, partial mediation also suggests that both the direct and indirect outcomes, mediated through a third variable, have a substantial impact. Not to mention, the enhanced innovation created by individual managers can bridge the impact of human capital on organizational performance. These research findings align with the principles of dynamic capabilities theory (Teece et al., 1997), which posits that intangible resources, such as innovation, manifest a company's internal capacities to gain a competitive edge.

The third novel finding is the significance of organizational learning in mediating the relationship between human capital and organizational performance. Studies have yet to explore the role of learning as a mediator in the influence of human

capital on organizational performance. Enhanced human capital management in service companies could contribute to more successful organizational learning and ultimately enhance organizational performance. The concept of partial mediation implies that both the direct and indirect impacts, mediated through a third variable, have significant effects.

Additionally, enhanced learning management enabled by the company can bridge the impact of human capital on organizational performance. This study's findings align with the resource-based theory principles (Barney, 1991), which stated that organizational learning is an essential resource that meets particular requirements, including being valued, rare, difficult to imitate, and non-substitutable. As a result, organizational learning is a significant mediating variable in the relationship between human capital and organizational performance.

CONCLUSION

This study aims to investigate the role of human capital in enhancing organizational performance through the mediation of innovation and organizational learning in the services industry in Indonesia. The findings show that human capital positively impacts organizational performance. Then, innovation and organizational learning significantly affect organizational performance. Furthermore, innovation and organizational learning mediate the relationship between these two variables. The findings indicate that companies must consistently implement policies that promote managers' active participation in contributing ideas. Then, companies recommended that managers provide adequate learning facilities, such as opportunities for individualized mentorship from experienced professionals in their respective fields, rewards for managers who willingly contribute their expertise, and consequences for managers who withhold knowledge. The reason is that the dynamic business environment requires managers to adapt and acquire new skills continually to ensure they remain well-informed and attuned to domestic and global market trends, thus helping the company maintain a competitive edge.

AUTHOR CONTRIBUTIONS

Conceptualization: Masyhuri, Achmad Sudiro, Sri Palupi Prabandari, Desi Tri Kurniawati.

Data curation: Masyhuri, Desi Tri Kurniawati.

Formal analysis: Masyhuri.

Funding acquisition: Achmad Sudiro, Sri Palupi Prabandari.

Investigation: Masyhuri, Sri Palupi Prabandari.

Methodology: Masyhuri, Sri Palupi Prabandari, Desi Tri Kurniawati.

Project administration: Masyhuri, Achmad Sudiro.

Resources: Achmad Sudiro, Desi Tri Kurniawati.

Software: Masyhuri.

Supervision: Achmad Sudiro, Sri Palupi Prabandari, Desi Tri Kurniawati.

Validation: Masyhuri.

Visualization: Sri Palupi Prabandari.

Writing – original draft: Masyhuri, Achmad Sudiro.

Writing – review & editing: Sri Palupi Prabandari, Desi Tri Kurniawati.

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