

HUMAN CAPITAL AND ORGANISATIONAL OUTCOME: MEDIATION AND MODERATION MODEL

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Abstract. *Purpose* – This study aims to investigate organisational values as moderators and playful work design as mediators in the relationship between human capital and organisational outcomes in service industry in Indonesia, utilizing quantitative analysis.

Research methodology – Purposive sampling was used to retrieve data from 305 respondents using a self-reported questionnaire. The data is analysed using the macro PROCESS using model 5.

Findings – The results indicate the direct influence of human capital on organisational outcomes, mediation, playful work design, and moderation of organisational values. The findings of this study reinforce that applying high organisational values and effective human capital management can optimise organisational outcomes through playful work design.

Research limitations – This research was carried out with one questionnaire distribution, future research need to conduct longitudinal studies to be known under different conditions and times in another industry.

Practical implications – Manager's must carry out digital transformation and human capital to survive and become winners amid today's tight service industry competition by encouraging organisational values and supporting playful work design.

Originality/Value – This study investigated six dimension of human capital which are suitable in the industrial era 4.0 for manager's in service industry and its impact on organisational outcome with mediation and moderation analysis.

Keywords: human capital, organisational values, organisational outcome, playful work design.

JEL Classification: M50, L25, L87.

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1. Introduction

Global business competition is getting tighter due to business changes towards digitalisation supported by qualified technological and information developments and the rapid pace of scientific development (Soewarno & Tjahjadi, 2020). Thus, the success of a business can be seen from the company's ability to optimise its knowledge, the knowledge arena becomes one form of intangible asset to be a source of competitive advantage (Pulic, 2004). Furthermore, Sherif and Elsayed (2016) claimed that to increase a company's performance, intellectual capital is a crucial component of material knowledge, information, intellectual property, and intellectual experience. Alvino et al. (2021) conducted a review for 29 years and suggested that intellectual capital has been recognised as a strategic resource to improve

organisational performance and processes. A company's ability to innovate relies heavily on intellectual capital. Then, Demartini and Beretta (2020) reviewed the results of previous research on the determinants of intellectual capital, such as innovation, knowledge management, core competencies, organisational learning, conversation management, invisible assets and company performance.

Human capital is a dynamic asset that forms an organisation's competitive advantage consisting of formal education, attributes, life experience, knowledge, inventiveness, energy, and enthusiasm (Weatherly, 2003; Mubarik et al., 2020; Yami et al., 2021). In addition, human capital has been expanded to include things such as attitude, top management, employee flexibility, training, work-based affective well-being, emotional intelligence, adaptability, cognition, strategic agility, knowledge sharing and company performance (Baldi & Trigeorgis, 2020; Mostafiz et al., 2021; Yonis et al., 2018; Zhao et al., 2021).

Proactive behaviour may positively impact others, so proactive behaviour is in a great position to build a connection with the future in anticipation of changes from uncertain business environment situations (Fay et al., 2023). Proactive behaviour is the act of taking the initiative to improve the situation, bringing about changes in the situation at work and changes in oneself as a being who has cognitive emotional and free will (Parker et al., 2006; Khatri et al., 2017; Fay et al., 2023). In line with this, one of the work behaviours that shows employee activeness is making fun of work designs. People play at work for various reasons, including to keep themselves from getting bored, to improve their cognitive flow, and to relieve stress at work (Petelczyc et al., 2018). Organisations should prioritize playful work designs since they positively impact business performance (Bakker et al., 2020). Furthermore, Bakker et al. (2020) explained that playful work design is very important to apply in organisations because of high work demands and pressure. Then, Bakker et al. (2020) stated that a variety of tasks, particularly those that are tedious, repetitive, and monotonous, can benefit from adopting playful work design. So, the current study intends to investigate human capital's role in driving organisational outcomes by placing playful work design as a mediator.

Moreover, we integrate resource-based theory (RBT; Barney, 1991) and job demand resource theory (JD-R; Bakker & Demerouti, 2017); we argue that internal resources in the form of human capital combined with the strengthening of organisational values to drive organisational outcomes through playful work design. Therefore, the study has three research contributions. First, it uses RBT (Barney, 1991) as a basis for developing research models and substantiating hypotheses. RBT explains that when invisible assets are optimised, they can ensure the sustainability of the organisation (Barney, 1991). In line with RBT theory, this research fills a gap in knowledge intellectual capital and human resource management literature by investigating factors influencing company performance. However, only a few earlier studies examined how human capital influences playful work design (Shela et al., 2023). Because managers direct their employees' behaviour, which shows that managers are in a central and important position (Keskes et al., 2018), our study provides new insights to managers to understand better how to manage human capital in creating playful work design and ultimately impact company performance. The current study is the first to describe a theoretical model of how organisational outcomes can be improved using human capital by mediating playful work design.

Second, the direct influence of various organisational values in improving organisational performance has been extensively researched in the literature on human resource management (Cardoni et al., 2024; Hong et al., 2024; Tuan Ibrahim et al., 2020). Even with the managers' point of view, there is still a need for more information regarding how organisational values moderate the relationship between human capital and business performance. This research will yield fresh perspectives for companies of organisational value, such as what managers need in driving the performance of companies influenced by human capital. In summary, this study aims to examine how organisational values and playful work designs serve as moderation and mediation models to examine the indirect effects of human capital on organisational outcomes.

2. Literature review

2.1. Human capital and organizational outcome

Resource-based Theory (RBT) is used to analyse the role of human capital in company performance (Shehzad et al., 2023). RBT (see Figure 1) explains that when invisible assets are optimised, they can ensure the sustainability of the organisation (Barney, 1991). Human capital is a valuable attribute and can be supplemented with the right investment to optimise all capabilities (Schultz, 1961). Investment in human capital must be encouraged so that performance can increase (Khan et al., 2023); there is an empirical relationship between income and education level, work experience, and technical professional background (Hu et al., 2023). Thus, human resource potential is continually evolving in tandem with the state of the market. Furthermore, only the acquisition and ongoing development of human resources can ensure the company's growth and survival (AlQershi et al., 2020). When an organization has the right people capital, competent and intellectually agile attitudes are fostered (Holborow, 2018). Optimisation of human capital capabilities in the company is proven to improve company performance (Zhang et al., 2023). Human capital in its development always has important components, including training, expertise, experience, personal growth, and inventiveness (Lenihan et al., 2019). In summary, human capital is a serious concern for companies that

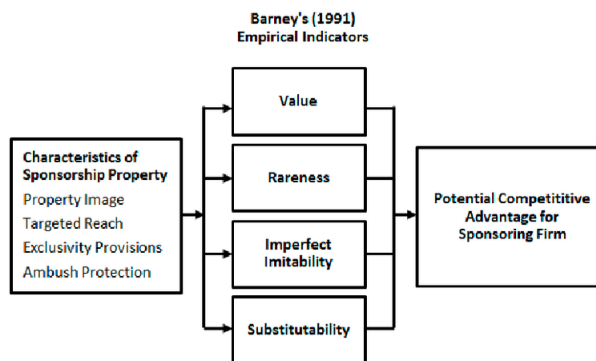


Figure 1. Resource Based Theory (RBT) adapted from Barney (1991)

are undergoing transformation, the compatibility between the skills possessed by employees and the needs of Industry 4.0 needs to be considered so that employees can increase their productivity in the current era of digitalization with the help of computers and the Internet of Things and Robotics. Furthermore, in this specific context, human capital in service companies is a dynamic combination of intellectual (knowledge, skills, expertise) and psychological (attitudes, motivation, resilience) resources that empower employees to excel in a competitive, service-driven environment.

Previous research on the effect of human capital on company performance was carried out by (Braunerhjelm & Lappi, 2023). The findings suggest that recruiting entrepreneurial employees can be very beneficial for companies because it will diversify their human resources. However, his productivity will depend on his work experience, age and education. Sebola (2023) discovered that enhancing success in the higher education industry requires a significant investment in human capital. Furthermore, effective human capital management is expected to be able to optimize company performance through appropriate recruitment and placement of employees as well as optimizing the use of employee skills efficiently and effectively.

2.2. Mediating role of playful work design

Playful work design is a sub-dimension of proactive work behavior developed by (Bakker & Demerouti, 2017) to explain how the work atmosphere can be influenced by proactive employee behavior independently. Employees that actively create enjoyable work environments and find solutions to problems without significantly altering the nature of the work itself are engaging in playful work design (Bakker & van Woerkom, 2017; Boonyarit, 2023). The current study answers the recommendation (Bakker et al., 2020) to examine further playful work design in its application in profit companies. In recent years, the Job Demand Resource Theory (JD-R) theory (see Figure 2) has explained that playful work design has proven to be an important factor in improving company performance (Bakker & Demerouti, 2017). Demerouti and Peeters (2018) contend that workers can maximize their job demands in addition to receiving more resources and challenges from their jobs. According to these writers, reducing job expectations in a playful way (e.g., by lowering workload or avoiding irritated clients) uses more energy than it produces (Petrou et al., 2015; Rudolph et al., 2017). Furthermore, Scharp et al. (2022) demonstrate how workers can satiate their basic need for relatedness when they create a more joyful work environment. In summary, playful work design is part of proactive work behavior which is employee behavior to actively participate in contributing to the company through creative and innovative ideas, especially in attractive and fun work design. Furthermore, in this specific context, playful work design seeks to transform routine tasks into more enjoyable and rewarding experiences, ultimately contributing to higher employee motivation, better customer service outcomes, and a more adaptive, resilient workforce.

Furthermore, findings from Hu et al. (2018) explain that psychological capital can increase proactive work behavior. Prior studies investigating the impact of human resource management strategies on proactive work conduct (Pham, 2021) is still limited to analysing proactive work behaviour influenced by human capital, even though human capital is closely related to proactive work behaviour to meet employee psychological satisfaction. There is still a dearth

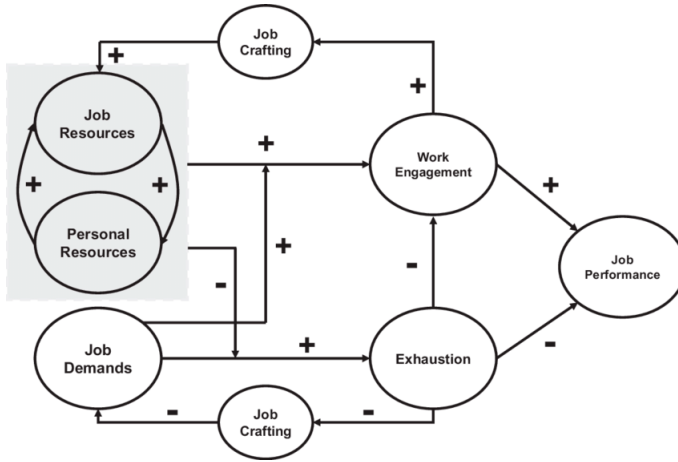


Figure 2. Job-Deman Resource Theory (JD-R) adapted from Demerouti and Bakker (2017)

of research on human capital in proactive behaviour. Some previous studies have been limited to the theme that proactive behavior is a vital factor in influencing organisational performance (Guan et al., 2023b). Biwer et al. (2023) found that student behaviour can improve academic performance of students. Pro-environmental behavior also affects environmental performance (Naz et al., 2023). Proactive behaviour is an antecedent of performance (Junker et al., 2022). Since human nature is play, and play is intrinsically beneficial and satisfying (Bakker et al., 2020, 2023), we propose the mediating role of playful work design on the influence between human capital and organisational outcomes.

2.3. Moderating role of organizational values

Based on the competing values approach (CVA) theory (see Figure 3), an individual will choose values that depend on his situation (Quinn & Rohrbaugh, 1983). So, researchers argue that organisational values strengthen the connection between organizational outcomes and human capital. Values are described as persistent beliefs that transcend particular contexts, are preferred by individuals or society over conversational views, and can influence behavior evaluation or selection (Rokeach, 1973). An earlier version of value theory (Schwartz, 1992) proposed that spirituality could be considered another near-universal value. The central aim of spiritual values is to achieve meaning, coherence, and inner harmony by transcending the ordinary aspects of everyday life. Once established, a system of values operates in various ways. It influences an individual's perception, shaping how external stimuli are interpreted in alignment with the value structure (Postman et al., 1948; Williams, 1979). Thus, when an individual's values differ from those dominant in their social environment (e.g., group, organization), the values of the environment may affect what the individual expresses, but they may not accurately predict their actual behavior (Meglino & Ravlin, 1998). Schwartz (1992) adopts a conception of values that specifies six main features that are implicit such as values are beliefs linked inextricably to affect, values refer to desirable goal that motivate action,

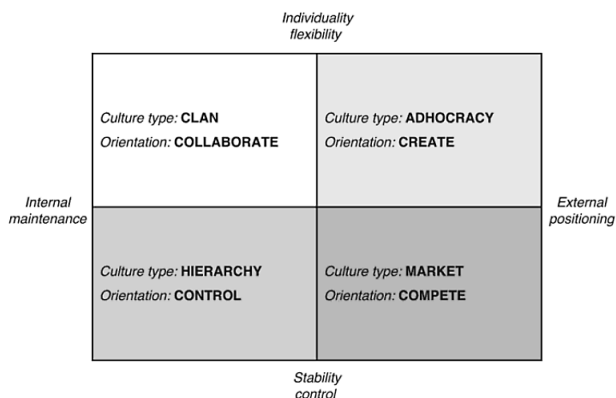


Figure 3. Competing Values Approach Theory (CVA) adapted from Quinn and Cameron (1983)

values transcend specific actions and situations, values serve as standards or criteria, values are ordered by importance relative to one another and the relative importance of multiple values guide action. Furthermore, Schwartz (1992) identifying ten motivational types of values such as, self-direction, stimulation, hedonism, achievement, power, security, tradition, conformity, benevolence and universalism. Organisational values can promote better resource management and more effective management of operational activities for the organisation (Margherita & Braccini, 2023). Own values can be shared by individuals (Guan et al., 2023a) and groups (Gencer et al., 2023); this means that values are principles and wisdom both individually and in groups to achieve the goals to be completed. Organisational values can be combined between personal and organisational with indicators of value matching, demand matching, and ability matching (Wei & Li, 2021). Furthermore, organizational values are very important for management to pay attention, because it is related to the confidence and commitment of employees in working based on the norms that they believe in and apply in work so that they can increase productivity and commitment at work.

The relationship between values and behavior can be understood through several important intermediate stages, each of which plays a crucial role in translating abstract values into concrete actions. Initially, values form the cognitive foundation, representing beliefs about what is important or desirable in life. These values are then internalized and become guiding principles for decision-making. However, for values to manifest as behavior, they must go through a process of attitude formation, where individuals evaluate situations and determine whether their values align with the potential actions. Social norms and contextual factors further shape these attitudes, acting as mediators that influence whether a person will engage in a behavior consistent with their values. This process can also be affected by cognitive dissonance, where discrepancies between values and behavior can lead to efforts to either adjust values or modify behavior. Therefore, understanding this progression – values to attitudes, to intentions, to behaviors – helps clarify why people sometimes act in ways that may not fully align with their stated values (Schwartz, 2012; Rokeach, 1973; Ajzen, 1991).

Previous researchers have used organisational values as moderation between job engagement and management roles against burnout (Rabenu et al., 2021). Furthermore, Yang and Jang (2020) suggest that only companies serious in implementing sustainable activity practices based on pertinent organizational values, achieve favorable financial results. Moreover, the research results from Akinyele et al. (2020) also found that increasing the salience of value statements through active delivery increases the moderation effect on productivity. Based on CVA theory and previous research, we argue that organisational values can strengthen the relationship between human capital and organisational outcomes in the service industry.

Thus, the Hypothesis in this study can be presented based on the role of human capital in organisational outcomes mediated by playful work design and moderated organisational values in the service industry in Indonesia.

- **H1:** Human capital directly has a significant effect on organisational outcomes;
- **H2:** Human capital directly has a significant effect on playful work design;
- **H3:** Playful work design directly affects organisational outcomes;
- **H4:** playful work design mediate between the influence of human capital and organisational outcome;
- **H5:** Organisational values moderate the influence of human capital on organisational outcomes.

3. Research framework and methodology

Based on the results of literature analysis and theoretical studies, a concept framework is developed to show research objectives and hypotheses. Figure 4 shows that human capital is the independent variable, while the organizational outcome variable is the dependent variable. Furthermore, playful work design variables as mediation variables and organizational values as moderation.

This study's analysis unit is the organisation, so managers are the right respondents because it can reflect the organisation as a whole rather than employees. Purposive sampling techniques are used because only managers can be a research sample. Our study used the Gpower application to calculate a minimum sample with a significance level of 95%. Data was collected over seven weeks by distributing 500 surveys, and questionnaires were distributed using online surveys. After the data is screened, i.e., removing incomplete and invalid answers, there are six incomplete and four invalid answers. So, only 305 questionnaires were eligible for continued data analysis. Hypothesis testing using macro process from Hayes (2013) with SPSS 25 application.

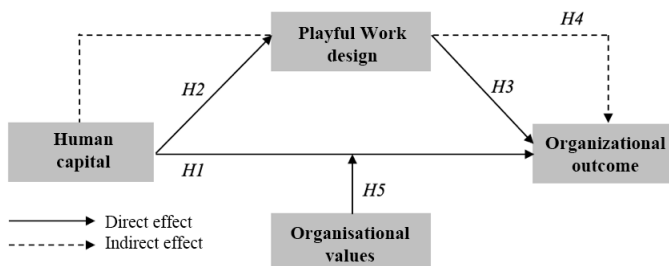


Figure 4. Conceptual framework

3.1. Measures

Organisational values are measured using eight items (Yoo et al., 2011). Examples of items stated “most decisions should be made by those in higher positions without consulting those in lower positions,” and “even if individual goals suffer, group loyalty should be promoted”. Cronbach’s alpha reliability on this scale is 0.97.

Human capital is assessed using six items from the scale of human capital developed by (Vidotto et al., 2017). Examples of statement items are “I am able to leverage my abilities to break down obstacles and expedite the expansion of my organization” and “I typically put a lot of energy into my work.” Cronbach’s alpha reliability on this scale is 0.90.

Organisational performance was measured using eight items adapted by Shraah et al. (2022). Examples of items written are “The company has experienced an increase in profits reflected in increased net margins” and “The *company* always optimises the use of resources”. Cronbach’s alpha reliability on this scale is 0.96.

Six elements from the created (Scharp et al., 2019, 2023) playful work design scale were used to measure playful work design. Examples of items stated are “Today, I look for humor in the things I need to do” and “Today, I compete with myself at work – not because I have to, but because I enjoy it”. Cronbach’s alpha reliability on this scale is 0.91. Use a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). All instruments are adapted from existing literature and scales.

3.2. Control variables

Control variables in the study were tenure, education, age, and gender because they can affect organisational outcomes (Singh & Misra, 2021; Verburg et al., 2018). Therefore, the study used control variables in the form of respondent demographics: gender (male = 1 and female = 1), age (<30 years = 1, 31–40 years = 2, 41–50 years = 3 and >51 years = 4), education (senior high school = 1, diploma = 2 and undergraduate = 3) and job tenure (<10 years = 1, 11–20 year = 2 and >21 years = 3).

3.3. Confirmatory Factor Analysis (CFA)

We analysed CFAs by including all variables into four factors and found that the data in this study fit with the research model (Anderson & Gerbing, 1988). The results of data analysis for the four-factor model showed that (Chi-square = 1158.473, $p < 0.001$; confirmatory fit index (CFI) = 0.91, Tucker-Lewis index (TLI) = 0.92, root mean square of approximation (RMSEA) = 0.06). These results show that all variables already have data that fits the model.

4. Results

4.1. Descriptive statistics

Table 1 shows the mean value and correlation between research variables. The results of the descriptive analysis showed that scores for organisational values, human capital and organisational outcomes were above 4.00. In addition, playful work design has a mean value of 3.80. The correlation value between variables shows that human capital has a positive correlation to organisational outcomes, as well as to playful work design and organisational values.

Table 1. Descriptive statistics and Fornell-Larcker criterion

Variables	1	2	3	4	Mean
(1) Organisational values	0.82				4.18
(2) Human capital	0.44	0.63			4.42
(3) Organisational outcome	0.76	0.45	0.78		4.28
(4) Playful work design	0.63	0.41	0.68	0.88	3.80

Table 2. Validity and reliability test

Construct	Outer loading	AVE	CR
<i>Human capital</i>		0.568	0.922
HC1	0.818		
HC2	0.757		
HC3	0.748		
HC4	0.708		
HC5	0.821		
HC6	0.727		
<i>Playful work design</i>			
PWD1	0.702		
PWD2	0.764		
PWD3	0.727	0.572	0.912
PWD4	0.819		
PWD5	0.714		
PWD6	0.793		
<i>Organisational values</i>		0.635	0.969
OV1	0.707		
OV2	0.769		
OV3	0.827		
OV4	0.721		
OV5	0.777		
OV6	0.791		
OV7	0.848		
OV8	0.813		
<i>Organisational outcome</i>		0.659	0.962
OO1	0.828		
OO2	0.854		
OO3	0.824		
OO4	0.758		
OO5	0.831		
OO6	0.789		
OO7	0.773		
OO8	0.796		

Furthermore, Table 2 uses validity testing using convergent validity values, namely outer loading values. It can be seen that all indicators have an outer loading value greater than 0.70 as suggested by Hair et al. (2019). Next, we use the value of the Fornell-Larcker method to test discriminant validity. The values in Table 1 indicate that Fornell and Larcker values are greater on diagonals than on rows and columns, as suggested by Fornell and Larcker (1981). Furthermore, we conducted reliability testing using composite reliability and average variance extracted (AVE) values; it was found that all latent variables had composite reliability (CR) values greater than 0.70 and AVE values greater than 0.05, as suggested by Hair et al. (2019). Based on some of the validity and reliability tests above, it can be concluded that all latent variables meet the validity and reliability tests well.

4.2. Hypotheses testing

This study used hierarchical regression analysis (HRA) with macro PROCESS to test the hypothesis with model 5, namely one mediation variable and one moderation variable using 5,000 bootstrapped samples developed by Hayes (2017). Step 1 included control variables

Table 3. PROCESS results

Predictor	B	SE	T	p
<i>Playful work design (PWD)</i>				
Step 1				
Constant	11.59	0.11	104.29	0.000
HC	0.13	0.02	4.79	0.000
OV	0.41	0.03	12.07	0.000
HC x OV	0.012	0.01	2.07	0.038
<i>Organisational outcome</i>				
Step 2				
Constant	56.27	1.31	42.75	0.000
HC	0.59	0.06	9.22	0.000
PWD	0.39	0.13	2.90	0.003
<i>Indirect effect and significance using normal distribution</i>				
OV	Booth indirect effect	Boot SE	Boot LLCI	Boot ULCI
<i>Conditional direct effect At Organisational outcome = $M + -1\ SD$</i>				
Low OV (-1 SD)	0.48	0.06	7.45	0.000
Mean OV	0.59	0.06	9.22	0.000
High OV (+1 SD)	0.70	0.09	7.19	0.000
Indirect effect	Index	Boot SE	Boot LLCI	Boot ULCI
PWD	0.02	0.01	0.04	0.06

Notes: n = 305. LL – lower limit; UL – upper limit; CI – confidence interval; SD – standart deviation; HC is human capital, PWD is playful work design; OV is organizational values.

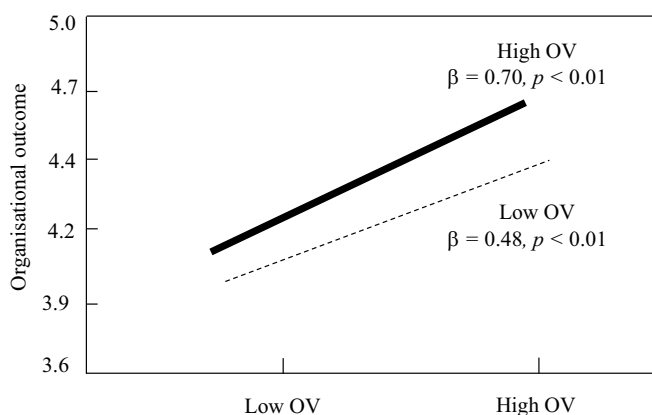


Figure 5. Moderating role of organizational value

in the form of gender, age, education and tenure. They included mediating variables, playful work design, and moderation organisational values in Step 2. Finally, the independent variables of human capital and moderation interaction are included in Step 2; if they have a significant effect, they act as moderation.

Table 3 shows that human capital has a significant effect on playful work design ($\beta = 0.13$, $p < 0.01$), meaning that the H1 Hypothesis is supported. Human capital on organisational outcomes has a significant effect ($\beta = 0.59$, $p < 0.01$). So, Hypothesis 2 is accepted. Furthermore, playful work design directly affected organisational outcomes ($\beta = 0.22$, $p < 0.01$). So, H3 is accepted.

Testing the H4 Hypothesis, namely playful work design, mediates human capital and organisational outcomes. We use suggestions from Hayes (2017), such as mediation and moderation testing on one SD below and above the mean of organisational values. Table 3 also shows the value of the indirect effect of human capital influence on the organisational outcomes through playful work design (index = 0.02, SE = 0.01, CI = 0.04, 0.06). So, the H4 Hypothesis is accepted.

H5 shows that organisational values strengthen the relationship between human capital and organisational outcomes. The interaction between human capital and organisational values is significant ($\beta = 0.012$, $p < 0.05$). Furthermore, testing using slope in Figure 5 shows that when organisational values are high (+1 standard deviation above the mean), human capital has a significant effect on organisational outcomes ($\beta = 0.70$, $p < 0.01$). Likewise, when organisational values are low, the relationship also has a significant effect ($\beta = 0.48$, $p < 0.01$). So, the H5 Hypothesis is accepted.

5. Discussion

The findings of this study demonstrate that human capital drives organisational outcome, and that relationship can be explained using playful work design and organisational value. First, the study found that human capital positively influences organisational outcomes. That

is, effective and efficient human capital management can improve organisational outcomes such as financial performance, marketing and internal business processes. Past researchers (Aman-Ullah et al., 2022; Hu et al., 2023; Lenihan et al., 2019; Shehzad et al., 2023; Zhang et al., 2023) Finding that human capital can improve organisational outcomes. This finding is in line with RBT, which suggests that optimally managed resources can increase competitive advantage and firm performance (Barney, 1991).

Second, the study found the mediating role of playful work design in the relationship between human capital and organisational outcomes. This finding is in line with previous research that found that human capital has a positive effect on playful work design (Scharp et al., 2022) and a positive influence between proactive work behavior and organisational outcomes (Kidron & Vinarski-Peretz, 2024). This finding is in line with JD-R theory which says that optimization of existing resources has always been an important factor in achieving organisational outcomes (Agrawal & Pradhan, 2024). In summary, the results indicate that human capital is able to improve playful work design, creating better organisational performance. This finding is in line with previous researchers who explained playful work design as a mediator in influencing the relationship between the quality of patient care and human resource capabilities (Khatri et al., 2017).

Third, the study found the role of organisational value in amplifying the influence of human capital and organisational outcomes. These findings suggest that organisational values such as cohesion, loyalty and positive norms are applied in the organization (Margherita & Braccini, 2023). Furthermore, only companies are serious in implementing sustainable activity practices based on pertinent organisational values, achieve favorable financial results (Yang & Jang, 2020). In summary, organisational value can be improved in its application in order to optimize the improvement of organisational outcomes with antecedent human capital. Furthermore, Akhlak values, which are a culture applied by all companies, are in the value to attitude stage which is still in the early stages before achieving intention and behavior, so it is still necessary to improve efforts to internalize moral values in order to achieve the behavior stage.

Finally, change with radical innovation by involving proactive behaviour (i.e., playful work design) by giving freedom to create a pleasant work atmosphere without reducing the essence of the work to all elements of the company is the main factor to be able to win the competition in the era of industry 4.0 which is very tight (Singh et al., 2022), especially in the courier and logistics service industry. Our study uncovered unique insights into the value of efficient and successful human resource management in raising organizational performance. Our research combines proactive behavior, intellectual capital, and human resource management and change management literature by using corporate values as variables that strengthen the relationship between human capital and organisational outcomes. With these unique findings, we recommend that researchers and practitioners in human resource management expand our research and identify other factors, such as mediation and moderation mechanisms, by managing human capital more effectively to optimise organisational outcomes and win the competition.

5.1. Theoretical and practical implications

This study contributes to both theoretical understanding and practical implications. Theoretically, in the era of Industry 4.0, managers are advised should prioritize investing in the reskilling and upskilling of employees who possess the necessary digital capabilities (Hajoary et al., 2023). Human capital is closely related to company performance to enhance competitive advantage (AlQershi et al., 2020). Seclen-Luna et al. (2020) discovered that the direct relationship between the composition of human capital and productivity demonstrates that the greater the degree of education of workers, the higher their productivity and ultimately impact company performance. The literature is enriched by the findings of current studies on mediation on human resource management and human capital transformation with playful work design mediation mechanisms between human capital in improving organisational outcomes. This aligns with previous researchers' findings who examined intellectual capital's role in improving organisational outcomes (Singh & Verma, 2023; Chatterji et al., 2023). This research also supports resource-based theory (Barney, 1991) by finding support for human capital to unleash the optimal potential of all employees through proactive behaviour, which ultimately impacts organisational outcomes. Our findings also fill a research gap from the need for more studies on playful work design. This study is the first to prove that playful work design can increase company productivity using human capital. Then, the results of testing the moderation hypothesis say that all employees trust organisations that have good values and must be applied by employees can improve human capital management in industry 4.0 and ultimately impact organisational outcomes.

Practically, the finding of this research offer valuable insight for HR and practitioners. Firstly, the results of the study show that better human capital management can improve company performance. This finding is a reference for companies or practitioners regarding the importance of managing human capital effectively and efficiently. This research also finds three indicators that are indicators of shaping human capital, so that it can be used as a reference to determine employee training and development models based on company needs in line with the direction of company transformation. Secondly, the findings of this study illustrate that playful work design is a mediation between effective human capital management and improving company performance. This indicates that giving employees the freedom to design their work with innovative ideas will increase their productivity, so managers need to create interesting and innovative work designs. In addition, companies that are transforming human resources must ensure that they consider human capital, such as recruiting talents who have good information and technology skills, considering the level of education for some job positions, requiring employees to be creative in solving problems, looking for talents who have specific experience with their work, looking for employees who have a spirit of service, forcing employees to adapt with change, also uphold ethics and be able to relate well with customers and have good communication with colleagues and customers that can improve playful work design and organisational outcomes. Thirdly, the results of the research on organizational value variables as a moderation variable between human capital and organizational performance illustrate that companies or practitioners need to pay serious attention to the application of organizational values in the form of *AKHLAK*, in

addition to of course with proper and effective management of human capital, because that way it will be able to improve company performance in a sustainable manner. These values are in the form of trust, competence, harmony, loyalty, adaptive and collaborative in order to strengthen the integrity of employees and make employees more professional in their work and have an impact on better commitment and productivity.

5.2. Limitations

Although this research made some contributions, it is not free from limitations. This study was carried out with one questionnaire distribution. Researchers then need to conduct longitudinal studies to be known under different conditions and times. All variables are self-reported, which allows bias to occur. However, the moderation effect shows that common method bias is not a problem. Our study explains the importance of human capital management in the industrial era 4.0 in improving organisational outcomes through playful work design. Thus, the next researcher exploring mediation mechanisms is related to corporate transformation efforts to increase competitive advantage in the connection between human capital and organisational outcomes. For example, it is interesting to investigate employee readiness for change, self-efficacy and innovative behaviours such as playful work design in improving organisational outcomes using effective and efficient human capital management. Researchers must then investigate gender roles, religiosity, and motivation as moderators on human capital and organisational outcomes.

6. Conclusions

This study aimed to investigate how human capital affects organisational outcomes, using playful work design as a mediator and organisational values as moderators. The findings show that human capital significantly affects playful work design. Additionally, playful work design can increase organisational outcome. The study also discovered that playful work design acts as a mediator between human capital and organisational outcomes. Furthermore, applying high organizational values and effective human capital management can optimise organisational outcomes. The study adds to the resource-based theory, job demand resource theory, competing values approach and emphasizes the understanding of human capital, playful work design and organisational values in fostering organisational outcome in service industry. Furthermore, playful work design in the form of giving authority to change work situations, increasing psychological resources, and creating pleasant workplace conditions has been proven to promote firm performance through proper and efficient human capital management.

Moreover, the study places significant emphasis on the role of high organizational values as a moderator in optimizing outcomes, but it does not fully delve into the subjective nature of these values. What qualifies as “high” organizational values may vary widely across different organizational contexts, and employees may interpret and prioritize these values in different ways. The qualitative analysis could benefit from a more nuanced exploration of how organizational values are understood and implemented at different levels of the organization, as well as how they align with employee experiences and behaviors. Without this, it remains unclear whether the findings are applicable across all types of organizations or if specific

contextual factors might influence how values actually impact outcomes. In sum, while the study offers valuable insights into the relationship between human capital, playful work design, and organizational outcomes, the qualitative analysis could be strengthened by a more comprehensive examination of the complexities surrounding organizational values, employee perceptions of playful work design, and the broader contextual factors that might influence these dynamics. A deeper exploration of these areas would enhance the generalizability and practical applicability of the findings.

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