

Enhancing employee competitiveness: The role mediation of human resources competencies

Sismiati^{1*}, Syarifuddin Sulaiman², Usmar³, Tamrin Lanori⁴, Primadi Candra Susanto⁵

Sekolah Tinggi Ilmu Ekonomi Tunas Nusantara, Indonesia¹

Universitas Muhammadiyah Makassar, Indonesia²

Universitas Prof. Dr. Moestopo (Beragama), Jakarta, Indonesia^{3&4}

Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia⁵

ms.sismiati@gmail.com¹, syarif_iman@unismuh.ac.id², usmarismail1504@dsn.moestopo.ac.id³,

tamrinlanori3@gmail.com⁴, primstrisakti@gmail.com⁵



Article History

Received on 23 March 2025

1st Revision on 7 April 2025

2nd Revision on 26 May 2025

2nd Revision on 3 June 2025

Accepted on 4 June 2025

Abstract

Purpose: Effective methods for digital literacy and financial management are expected to enhance HR competency and employee competitiveness in the job market.

Research Methodology: This quantitative study used SEM-PLS with convenience sampling to select 192 BUMD employees in DKI Jakarta. Data were collected via an online Likert-scale questionnaire.

Results: This study highlights the role of digital literacy and financial management in HR markets mediated by HR competency. It offers empirical evidence and a framework that integrates these factors to enhance HR competitiveness.

Conclusions: This study emphasizes the impact of digital literacy and financial management on HR competencies and organizational competitiveness. This study provides empirical evidence and a framework for enhancing HR capabilities.

Limitations: This study was limited by convenience sampling, self-reported data bias, and cross-sectional design. It focuses only on digital literacy and financial management, excluding factors such as leadership and organizational culture.

Contribution: This study empirically highlights the role of digital literacy and financial management in enhancing HR competency and competitiveness. It introduces a new framework, offers practical insights, and validates relationships using PLS-SEM.

Keywords: *Digital Literacy, Financial Management, Human Resources, Market Competitiveness*

How to Cite: Sismiati, S., Sulaiman, S., Usmar, U., Lanori, T., & Susanto, P. C. (2025). Enhancing employee competitiveness: The role mediation of human resources competencies. *Annals of Human Resource Management Research*, 5(1), 77-89.

1. Introduction

Data innovation is quickly progressing in today's computerized age, altogether changing different perspectives of life, counting human asset administration (HR). Innovation has reshaped how we associate, communicate, and work both internally and externally in the working environment. By leveraging online collaboration stages and preparing robotization, it has improved operational effectiveness and quickened the stream of data. Digital literacy is crucial for employees to increase productivity, improve work efficiency, and swiftly adapt to new technologies ([Aristei, Gallo, & Vannoni, 2024](#); [da Conceição Walkowski, dos Santos Pires, & Tricário, 2019](#)). Digital literacy involves operating hardware and software, understanding and using data, communicating effectively through digital media, and ensuring cybersecurity ([Imjai, Promma, Usman, & Aujirapongpan, 2024](#); [Kamkankaew et al., 2024](#)). Understanding proper online behavior and digital etiquette is an essential part of digital literacy.

Managing one's digital identity, protecting privacy, and preventing security threats are increasingly crucial skills in an era in which information is easily shared and accessible ([Dwiyanti, Luh Putu Agustini Karta, Cintya, & Bendesa, 2023](#); [Zaimovic et al., 2024](#)). Workers who are well-versed in digital literacy are more effective at collaborating, working efficiently, and solving complex problems with creativity. However, ([Choung, Chatterjee, & Pak, 2023](#); [Dwiyanti et al., 2023](#)). Emphasizing sound financial management is also a vital skill that supports better strategic decision-making within organizations. Employees with strong financial management skills contribute to budgeting, risk assessment, cost control, and financial planning. Those proficient in finance help ensure organizational financial stability, optimize resource utilization, and identify cost-saving opportunities [Li, Wang, and Soh \(2024\)](#).

In the era of rapid digital transformation, mastery of digital literacy and financial literacy has become increasingly important for employees to support strategic decision-making in organizations. The combination of these two skills allows employees to effectively analyze financial data, leverage digital technology to improve operational efficiency, and contribute to the financial stability of the organization. [Abdallah, Tfaily, and Harraf \(2025\)](#) show that digital financial literacy has a significant relationship with individual financial behavior, which includes long-term decision-making and planning. In addition, a study by [Deepa, Sekar, Malik, Kumar, and Attri \(2024\)](#) emphasizes the importance of digital financial literacy in improving financial decision-making, particularly among women in India. Therefore, the development of these competencies not only enhances the individual's ability to manage personal finances but also strengthens the capacity of organizations in the face of complex economic challenges ([Ichdan & Maryani, 2024](#); [Wenny Desty Febrian.S.E.M.M| Rini Ardista et al., 2022](#)).

A successful monetary administration fortifies a company's competitive position within the showcase. Fiscally learned workers can relieve monetary dangers, maximize speculation returns, and improve cash stream administration for businesses ([Ekawati & Yudoko, 2024](#); [Kokkaew, Jekkaw, Peansupap, & Wipulanusat, 2022](#)). These financial skills also enable employees to strategically plan and make informed decisions by understanding the financial implications of business operations. In an increasingly competitive market, a company's ability to develop and maintain employee competitiveness is a key success factor ([Paarima, Kwashie, & Ofei, 2021](#)). Employers who equip their staff with modern relevant skills gain an edge in fostering innovation and delivering value. Strengthening competitiveness relies largely on strong human resource (HR) expertise. With capable employees, companies can quickly and effectively respond to market changes, staying at the forefront of industry innovation ([Hadiwijaya and Yustini, 2024](#)).

According to [An, Lin, and Luo \(2024\)](#), these skills encompass a broad range, including technical proficiency, analytical thinking, communication, and teamwork. Companies with talented representatives are superior situated to adjust to moving advertising conditions and lead industry headways. Additionally, organizations with solid HR divisions can improve the quality of their items and administration ([Rudiyanto, Munawar, Prayoga, Arini, & Muflaha, 2025](#); [Selmer & Chiu, 2004](#)). Skilled workers can improve operational processes, develop innovative products, and provide excellent customer service. [Bhutto, Jamal, and Ullah \(2023\)](#) argue that this leads to increased customer satisfaction and strengthens the company's market reputation. It is essential to understand how financial management and digital literacy can influence HR capabilities and boost employee competitiveness in the HR management field ([Deepa et al., 2024](#); [Manurung & Putro, 2024](#)). This study explored the relationship between employee competitiveness, financial management, and digital literacy, with HR competency serving as a mediating factor.

From a methodological perspective, previous studies have primarily relied on theoretical or descriptive approaches. Consequently, there is a gap in the use of mixed-method techniques or more comprehensive quantitative methods to experimentally measure the impact of financial management and digital literacy on employee competitiveness through HR competency. This study aims to fill these gaps by further investigating the relationship between digital literacy, financial management, and employee competitiveness, using HR competency as a mediating variable and adopting a more robust methodological approach to provide stronger empirical evidence.

1.1 Research Gap

While a few studies highlight the significance of computerized proficiency and money-related administration in today's work environment ([Aristei et al., 2024](#); [Choung et al., 2023](#); [Imjai et al., 2024](#)), most investigations have centered on the by and large effect of innovation on efficiency and decision-making. Be that as it may, the particular association between representative competitiveness and both money related administration and advanced education, with HR ability as a intervening figure, remains insulant investigated. Past studies have explored the relationship between advanced proficiency and work productivity or efficiency ([Ekawati & Yudoko, 2024](#); [Zaimovic et al., 2024](#)), as well as the connection between sound monetary administration and superior key decision-making ([Li et al., 2024](#)). However, experimental inquiries about how computerized proficiency and budgetary administration are connected, and how HR competency intercedes this relationship to upgrade representative competitiveness in HR administration, are still constrained ([Li et al., 2024](#)). However, empirical research on how digital literacy and financial management interact and how HR competency mediates this relationship to enhance employee competitiveness in HR management is still limited.

In addition, there is a hypothetical crevice in understanding the instruments that interface worker competitiveness with money-related administration and advanced education. Whereas both variables are recognized as imperative for progressing organizational execution ([Kokkaew et al., 2022](#)), few ponders have combined them into a bound system, especially with HR competency serving as an interceding variable.

2. Literature review

2.1 Digital Literacy and Employee Competitiveness

Advanced proficiency and worker competitiveness are becoming major concerns in today's HRM environment. Solid advanced aptitudes are seen to be vital for helping workers in altering to quickly advancing innovations ([Ahmad, Widén, & Huvila, 2020](#)) looks at the relationship between advanced education and representative competitiveness. The comes about appear that representatives with tall computerized proficiency levels as often as possible have the capacity to extend efficiency, rapidly adjust to unused innovations, and make a bigger commitment to the accomplishment of company objectives. In addition, it has been shown that workers' capacity to set up and maintain the company's competitive advantage in a progressively competitive showcase is affected by their level of computerized education. Agreeing [Wang, Niu, Mansor, Leong, and Yan \(2024\)](#) investigate emphasizes how vital it is to incorporate advanced education into HRM hones. They outline how firms may boost operational execution, maximize innovation utilization, and energize maintainable advancement by effectively creating computerized worker education. They outline how firms may boost operational execution, maximize innovation utilization, and energize feasible advancement by effectively creating advanced worker education. This serves as the establishment for the creation of rules and instructive activities focused on at raising computerized proficiency as a significant component of HRD plans (Cai et al., 2024),

Another study by [Miftah and Prasetyo \(2024\)](#) highlighted that increasing digital literacy contributes significantly to the Human Development Index (HDI) in Central Java, with a focus on the education sector as the main driver. In addition, a systematic review by [Pilav-Velić, Černe, Trkman, Wong, and Kadić-Abaz \(2021\)](#) revealed that high digital literacy is positively correlated with an increase in innovative work behaviours and employee competitiveness in organizations. Furthermore, [Iskandar \(2023\)](#) emphasizes the importance of integrating digital technology in HR management practices to improve operational efficiency and responsiveness to market changes. The integration of digital technology into human resource (HR) management practices has brought about significant changes in various aspects of organizational operations. [Lampropoulos, Astara, Skordoulis, Panagiotakopoulou, and Papagrigoriou \(2024\)](#) identified that the adoption of digital technologies in the recruitment, employee development, and performance management processes improves efficiency and accuracy, allowing for more informed decision-making.

In addition, research by Soxem et al. (2023) emphasizes the importance of digital skills development strategies and work flexibility to improve organizational adaptability in the face of rapid technological

change. Further, [Long and Cooke \(2023b\)](#) highlight that the digitization of HR not only improves operational efficiency but also provides better insights into managerial decision-making. Therefore, the development of HR strategies that focus on digital literacy and the use of technology is crucial for improving the competitiveness and performance of organizations in the digital era. The following is the hypothesis proposed in this study:

H₁: Employee competitiveness is significantly affected by digital literacy.

2.2 Financial Management and Employee Competitiveness

Compelling money-related administration is regularly considered a basic component of an organization's operational and vital victory. Competent monetary administration influences a company's foot line more than fair; it also impacts employees' capacity to contribute to organizational objectives and increase their competitiveness in progressively competitive advertising. The significance of strong budgetary administration for the achievement of human asset improvement ventures is highlighted by investigate by [Huang, Yang, Zheng, Feng, and Zhang \(2023\)](#). Organizations that have the capacity to handle cash streams proficiently, maximize returns on speculation, and minimize money-related hazards have a critical competitive advantage in drawing in and holding beat individuals. Specialists who obtain budgetary concepts and can apply this information to create educated commerce choices tend to have a more prominent effect on the general execution of the company, agreeing to think about ([Karim, Nahar, & Demirbag, 2022](#)). They may offer assistance with chance investigation, fetched administration, and budget arrangement more viably, all of which improve operational and vital execution.

Recent research highlights the importance of developing financial management competencies through strategic human resource (HR) management practices to improve employee competitiveness. [Long and Cooke \(2023a\)](#) emphasize that strategic HR practices, such as recruitment, training, and performance appraisals, contribute significantly to improving financial management competencies in small and medium-sized companies. In addition, [Hamadamin and Atan \(2019\)](#) show that investment in employee training can improve the operational efficiency and financial performance of companies. Thus, integrating effective HR practices with financial management strategies not only improves operational efficiency but also strengthens employee competitiveness in supporting organizational growth and development. They may offer assistance with hazard investigation, fetched administration, and budget arrangement more successfully, all of which improve operational and vital execution. Agreeing with an investigation by [Sharma and Gupta \(2024\)](#), joining money-related administration into HRD programs may altogether increase worker competitiveness. Taking after is the proposed speculation in this study: organizations that are able to instruct their laborers in monetary administration not as it were increment operational proficiency but moreover raise employees' capacity to back organizational development and development ([Hadiwijaya & Yustini, 2024](#)).

H₂: Financial management significantly impacts employee competitiveness.

2.3 Human Resources Competencies and Employee Competitiveness

The skills, knowledge, and attitudes that human resource professionals require to do their jobs well are referred to as human resource competencies. This competence helps manage administrative work in an increasingly competitive context, but it is also crucial for formulating plans and policies that promote organizational growth and increase worker engagement and productivity. [Blanka, Krumay, and Rueckel \(2022\)](#) highlight the importance of HR expertise in raising employee competitiveness. According to this study, organizations that prioritize the development of HR competencies, such as technical expertise, critical thinking, and effective communication, are more likely to have employees who can successfully navigate and adapt to shifting market conditions ([Phina et al., 2022](#)).

Based on this investigation, laborers who have achieved standard and precise HR competency advancement are more likely to display higher levels of engagement at work. According to [Azeem, Ahmed, Haider, and Sajjad \(2021\)](#), they may improve the company's showcase position, boost operational viability, and have a greater affect on prepare and item development. Investigate highlights how vital it is to incorporate human asset capabilities in organizational development methodologies to boost representative competitiveness. Companies may build durable competitive preferences on the off

chance that they can distinguish, create, and keep up representative gifts that are significant to their vital needs (Memon, 2022).

The latest research highlights the importance of developing human resource (HR) competencies to increase employee competitiveness in the digitalization era. A study by [Cetindamar, Abedin, and Shirahada \(2021\)](#) emphasized that training programs tailored to organizational needs and supported by technological approaches can significantly improve employee skills, especially digital literacy and adaptability to technological changes. [Ahmed \(2017\)](#) revealed that effective human capital management, which includes the identification and development of relevant employee competencies, contributes to the improvement of the company's competitive position in the market. Furthermore, [Fauna et al. \(2024\)](#) highlight that competency-based human resource development, particularly in the context of information technology and digitalization, enables organizations to better respond to the challenges of Industry 4.0. Thus, investment in HR competency development not only improves individual employee performance, but also strengthens the organization's overall competitiveness.

H₃: Employee competitiveness is significantly affected by human resource competencies.

H₄: Digital literacy and financial management influence employee competitiveness through HR competencies.

Agreeing to [Murugesan, Subramanian, Srivastava, and Dwivedi \(2023\)](#), creating Human Asset (HR) capabilities and moving forward representative competitiveness within the HR administration segment require familiarity with computerized innovation and solid monetary administration. The capacity to effectively consider and apply advanced advances in a proficient setting is known as computerized proficiency. This incorporates having broad information of advanced behavior and security laws in expansion to having a tall degree of capability with computerized apparatuses and stages. Later ponders show that to optimize operations, advance participation, and light inventiveness, HR experts must have a strong understanding of computerized education ([Schöggel, Rusch, Stumpf, & Baumgartner, 2023](#)). By consolidating advanced education into HR methods, companies may superiorly pull in and hold profoundly talented specialists by preparing their workforce with the abilities essential to rapidly receiving modern innovations ([Piwovar-Sulej, Blšťáková, Ližbetinová, & Zagorsek, 2024](#)).

Agreeing with [Arseneault and Gagnon \(2024\)](#), budgetary administration may be a vital column that encompasses a noteworthy effect on organizational decision-making and asset assignment. The capacity to play down monetary dangers, optimize ventures, and proficiently oversee cash streams is vital for money-related administration capability. Thinks about uncovering that human assets experts with a strong budgetary foundation may viably interface HR activities with general trade targets ([Chowdhury, Budhwar, Dey, Joel-Edgar, & Abadie, 2022](#)). It empowers them to anticipate their financial requirements, put cost-cutting techniques into activity, and accurately carry out chance appraisals. These capacities give the trade an advantage within the competitive showcase by making the difference that it ended up more fiscally secure and operationally proficient ([Chowdhury et al., 2022](#)).

When HR abilities combine money-related administration and computerized proficiency, there are a few critical key suggestions ([Schiuma, Santarsiero, Carlucci, & Jarrar, 2024](#)). Businesses that place a high esteem on nonstop advancement in these ranges enable their HR offices to create inventive HR arrangements and cultivate a culture of responsiveness and versatility. Expanded efficiency, work joy, and worker engagement are all benefits of this arrangement. Furthermore, it empowers businesses to urge the foremost out of their speculations in human capital by distributing stores successfully to activities that support and hold ability. This system emphasizes the noteworthiness of enhancing HR competencies in monetary administration and advanced proficiency to make a workforce able to effectively contribute to long-term organizational execution within the fast-paced modern corporate environment ([Cheng, Bonetti, de Regt, Ribeiro, & Plangger, 2024](#)). The framework of this study is as follows.

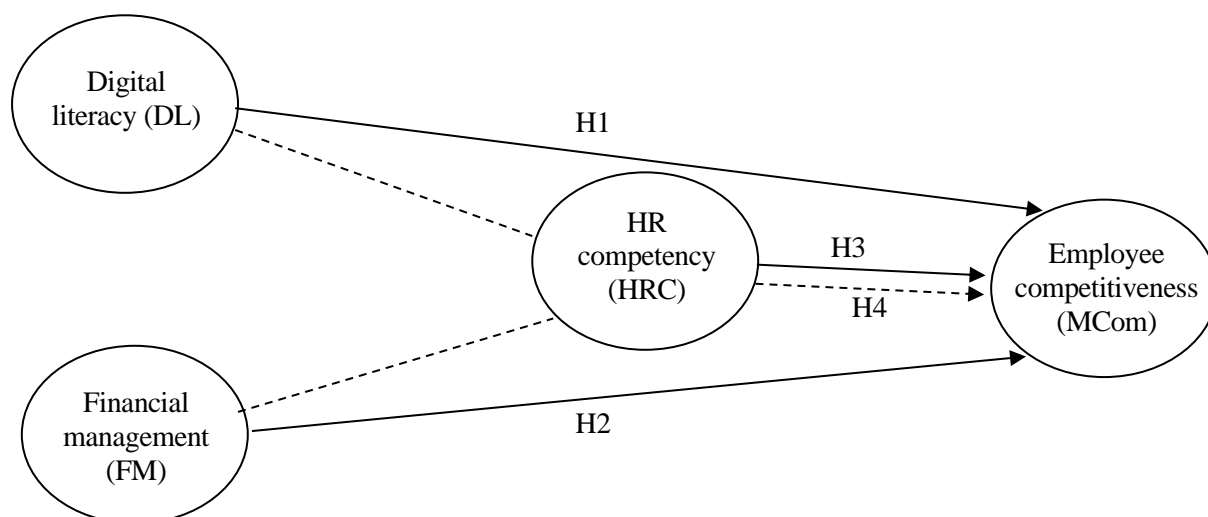


Figure 1. Research Framework

3. Methodology

This study's essential objective is to explore successful procedures for combining advanced education and monetary administration to improve representative competitiveness and HR competence within the human asset administration segment. The analysts chose respondents specifically from the target population employing a non-probability examining procedure, especially comfort examining. The comfort test procedure was chosen because of its common sense and the ease with which potential respondents from the target population can be reached. A total of 192 respondents who were utilized by BUMD (Territorial Government-Owned Ventures) in DKI Jakarta completed the test.

The information for the PLS-SEM investigation was taken after, and it was found that the test estimate was sufficient. This ensures the legitimacy of the factual examination and generalizability of the results inside the desired system. An orderly survey that had been extraordinarily made utilizing the Likert scale arrangement was utilized to gather the information. Google Shapes was used to conduct the online study, making it less demanding to disseminate and accumulate data from the chosen test of BUMD workers.

A halfway slightest squares auxiliary condition modelling approach will be utilized to analyze and translate the information assembled from the overview reactions (PLS-SEM). The connections between representative competitiveness, HR competency, budgetary administration, and advanced education may be built more effectively using this expository strategy. The examination of coordinate and circuitous effects is made conceivable by auxiliary condition modelling, which provides smart data in almost all ways that advances in money-related administration and computerized education can influence organizational results.

4. Results and discussions

4.1 Results

4.1.1 Construct reliability and validity

The external stacking esteem of each estimation pointer is compared to the significant variable it speaks to in order to survey the focalized legitimacy. Markers that have an external stacking esteem less than 0.6 point to a destitute definition of the factors within the created show. The external stacking levels accomplished by each marker in this experiment appear within the table underneath.

Table 1. Extracting data from research variables

| Variable | Indicators | Outer Loadings |
|-----------------------|------------|----------------|
| Digital literacy (DL) | DL.1 | 0.866 |

| Variable | Indicators | Outer Loadings |
|----------------------------------|------------|----------------|
| | DL.2 | 0.873 |
| | DL.3 | 0.912 |
| | DL.4 | 0.857 |
| | FM.1 | 0.834 |
| Financial management (FM) | FM.2 | 0.897 |
| | FM.3 | 0.875 |
| | FM.4 | 0.878 |
| | HRC.1 | 0.900 |
| HR competency (HRC) | HRC.2 | 0.886 |
| | HRC.3 | 0.903 |
| | MCom.1 | 0.847 |
| Employee competitiveness (M Com) | MCom.2 | 0.884 |
| | MCom.3 | 0.754 |
| | MCom.4 | 0.864 |
| | | |

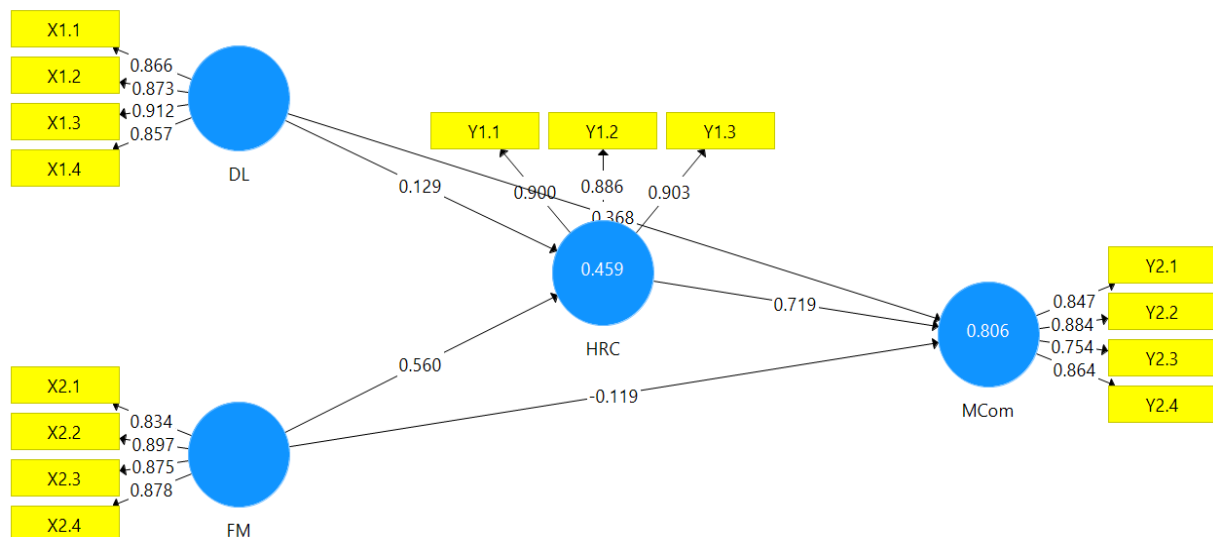


Figure 2. Outer Loadings

Based on the external stacking values extracted from each measuring gadget for each variable in Table 1, it is possible to determine whether each measuring gadget precisely characterizes the variable it speaks to. All the rebellious had external stacking values higher than 0.7, which demonstrates that they all precisely capture the inactive variable they are implied to speak to. The PLS Algorithm's computations on the pointers recorded within the table yielded the AVE esteem and AVE squared esteem that appear in Table 2.

Table 2. AVE, Composite Reliability, and Cronbach's Alpha

| Variable | Average Variance Extracted (AVE) | Composite Reliability | Cronbach's Alpha |
|----------------------------------|---|--------------------------|---------------------|
| Digital literacy (DL) | 0.770 | 0.930 | 0.900 |
| Financial management (FM) | 0.759 | 0.927 | 0.895 |
| HR competency (HRC) | 0.804 | 0.925 | 0.878 |
| Employee competitiveness (M Com) | 0.703 | 0.904 | 0.858 |

Table 2 illustrates that each variable's AVE esteem was more prominent than the desired least esteem of 0.5. With an normal esteem (AVE) of 0.703, the representative competitiveness variable had the most reduced esteem. The stacking figure values in Table 1 and the AVE values in Table 2 may be utilized to perform the concurrent legitimacy test to see on the off chance that the study comes about meet the necessities. After the build legitimacy test was completed, the build unwavering quality test was conducted. Based on the pointer that assesses the CR construct—which is utilized to imply a great construct—it is based on two criteria

4.1.2 Structural equation model

Testing the hypotheses is the final step in inferential statistical analysis. This test compares the t-statistic and t-table values derived from the associations between the variables in the model for which a pre-formulated hypothesis has been made. With a 95% degree of confidence in the processed data, the study findings had an alpha value (also known as the critical r) limit of 5%.

Table 3. PLS-SEM path coefficients

| Path | Std. Coeff | t-value | P-value | Test-results |
|------------------|------------|---------|---------|--------------|
| H-1 | | | | |
| DL → M Com | 0.128 | 2.674 | 0.008 | Supported |
| H-2 | | | | |
| FM → M Com | 0.138 | 2.370 | 0.018 | Supported |
| H-3 | | | | |
| HRC → M Com | 0.620 | 12.092 | 0.000 | Supported |
| H-4 | | | | |
| DL → HRC → M Com | 0.215 | 5.079 | 0.000 | Supported |
| FM → HRC → M Com | 0.151 | 3.756 | 0.000 | |

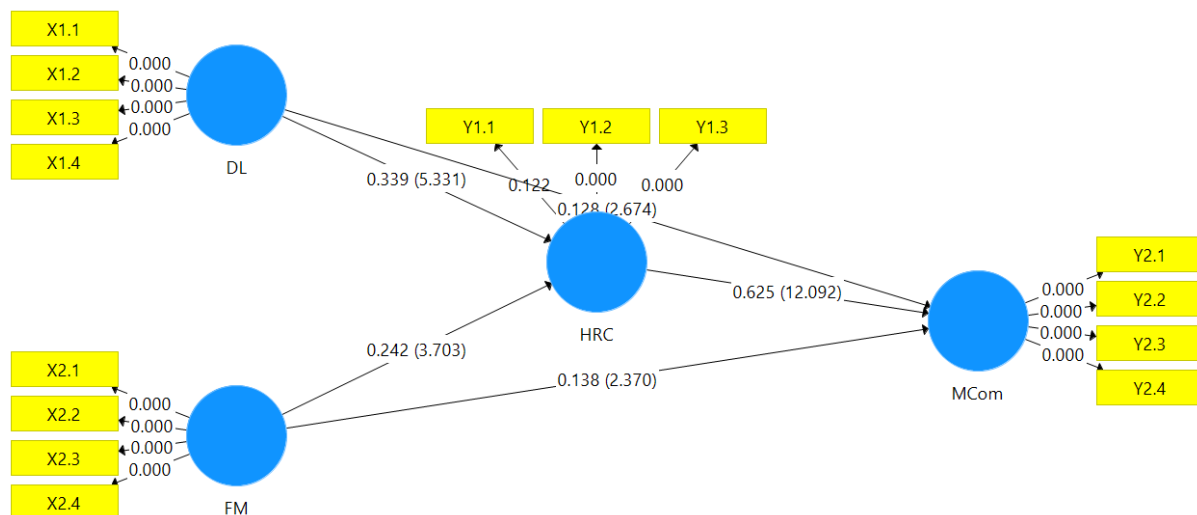


Figure 3. PLS-SEM path coefficients

Table 2 illustrates that each variable's AVE esteem was more prominent than the desired least esteem of 0.5. With an normal esteem (AVE) of 0.703, the representative competitiveness variable had the most reduced esteem. The stacking figure values in Table 1 and the AVE values in Table 2 may be utilized to perform the concurrent legitimacy test to see on the off chance that the study comes about meet the necessities. After the build legitimacy test was completed, the build unwavering quality test was conducted. The pointer that assesses the CR construct—which is utilized to imply a great construct—is based on two criteria: Composite Unwavering quality (CR) and Cronbach's alpha (CA). When a build appears, both the Composite Unwavering quality and Cronbach's Alpha (CA) from the pointer measuring the CR construct—which is utilized to demonstrate a great construct—it is considered

dependable. On the off chance that the values of Cronbach's Alpha and Composite Unwavering quality are more than 0.6, the build is regarded dependable. The composite unwavering quality test appears to have an esteem of > 0.7 , and Cronbach's alpha appears to have a value of > 0.6 , which suggests that the esteem of the entire instrument is solid.

4.2 Discussion

There is a solid positive relationship between workers' discernment of competitiveness and their level of advanced proficiency. People with vigorous stage administration, computerized instrument utilization, and computerized morals proficiencies for the most part illustrate the prevalent work execution and creative capacity. Computerized proficiency boosts labor efficiency by empowering straightforward communication, speedy data acquisition, and compelling assignment completion. Specialists who are capable of advanced education are more likely to come up with and execute novel arrangements for the company's issues. Carefully sharp laborers become more profitable resources in a competitive advertisement and are better able to adapt to changes within the working environment. The discoveries of this study provide noteworthy suggestions for human asset administration. In particular, they highlight the need for long-term preparation and advancement programs that prioritize advanced worker education.

There is a significant relationship between workers' competitiveness and their level of money-related administrative expertise. Solid cash stream administration, speculation optimization, and hazard-lessening capacities lead to more inventive and beneficial work yield. Proficient asset allotment and vital budgetary decision-making are two ways in which great money-related administration boosts yield. Solid monetary administration aptitudes permit workers to come up with and actualize imaginative arrangements for the company's issues. Specialists with solid budgetary management skills are more attractive because they can adjust and expect changes within the economy and advertise. These discoveries highlight how pivotal it is for HR supervisors to supply continuous preparation and improvement activities that improve staff members' budgetary education beat need.

There is a significant relationship between the seen competitiveness of workers and their level of budgetary administration aptitude. Solid cash stream administration, venture optimization, and chance decrease capacities lead to a more inventive and beneficial work yield. Proficient asset assignment and strategic financial decision-making are two ways in which a great monetary administration boosts yield. Solid monetary administration abilities permit workers to create and execute imaginative arrangements for a company's issues. Laborers with strong financial administration skills are more attractive because they can adjust and expect changes within the economy and showcase. These discoveries highlight how vital it is for HR supervisors to supply continuous preparing and advancement activities that progress staff members' money-related proficiency best need. A solid relationship appears to exist between employees' perceived competitiveness and their HR competencies.

In the context of Jakarta's region-owned enterprises (BUMD), the relationship between employee competitiveness, digital literacy, financial management skills, and HR competencies has become increasingly critical and closely linked. BUMDs operating in sectors such as public transportation, water utilities, regional banking, and market management rely heavily on the skills and professionalism of their human resources because service delivery is their core function. Unlike manufacturing industries, which depend on machines and physical products, the quality of service in BUMDs depends on how well employees interact with the public and deliver value. Employees who are digitally literate can make better use of technology to streamline services, respond to public needs more quickly, and offer services that are both efficient and people-centered. For example, a BUMD officer working in public service who is proficient in digital platforms and data systems can improve complaint handling and service quality. Likewise, financial management skills are especially important in BUMDs, where employees, particularly in leadership roles, must be able to manage budgets, control costs, and make strategic decisions regarding public funds and service investments.

HR competencies, such as communication skills, problem-solving abilities, and emotional intelligence, are equally vital in delivering public services that are trustworthy and responsive. Therefore, BUMDs

in Jakarta must prioritize the continuous development of these competencies, not only to meet service quality standards but also to remain competitive and accountable in a dynamic public service environment..

5. Conclusion

5.1. Conclusion

Moreover, this study holds particular relevance for service-based public organizations such as Jakarta's BUMDs, where the quality of human resources directly shapes public perception and service outcomes. The integration of digital proficiency, sound financial acumen, and strong HR competencies offers a strategic pathway for these organizations to enhance operational effectiveness and public trust. Employees equipped with digital tools and financial awareness are better positioned to deliver services that are responsive, transparent, and efficient—key elements of modern public administration.

As BUMDs face increasing expectations for accountability, innovation, and citizen-centered services, building comprehensive employee development programs becomes a necessity rather than an option. Therefore, future policies should emphasize cross-functional training that links technical, financial, and interpersonal skill development. This integrative strategy empowers employees not only to meet current service demands but also to proactively contribute to organizational transformation. Strengthening HR competencies through the lenses of digital literacy and financial management is not just a response to change; it is a driver of sustainable success. For BUMDs and similar service organizations, this presents a clear mandate: investing in people to unlock organizational potential, meet evolving public needs, and secure a lasting competitive advantage in today's fast-paced and digitized economy.

5.2. Limitation

This study was limited by its focus on conceptual analysis and secondary data, which may not fully capture the practical complexities faced by BUMDs in Jakarta. The absence of primary data or case-specific insights may reduce the applicability of the findings across diverse organizational settings. Additionally, the rapid evolution of digital technologies and financial systems may lead to shifts that outpace the relevance of the study over time. Future research should incorporate empirical methods, such as interviews or surveys, to validate these relationships and explore sector-specific challenges in implementing digital literacy and financial management training in public service organizations..

5.3. Suggestion

Based on the findings and limitations of this study, several suggestions are offered for future research and organizational practices. First, it is recommended that future studies adopt empirical approaches, such as qualitative interviews or quantitative surveys, to gather first-hand insights from employees within BUMDs in Jakarta. This would help validate the conceptual relationships between digital literacy, financial management, and HR competencies and provide context-specific recommendations.

Second, BUMDs should develop integrated training programs that combine digital skills, financial literacy, and HR competency. These programs must be tailored to the specific needs of different departments and employee levels to ensure their practical relevance and impact. Collaboration with academic institutions or professional training providers may enhance the quality and accessibility of such programs.

Third, policymakers should support and incentivize continuous professional development in public organizations, aligning workforce capabilities with Jakarta's broader goals of public service innovation and digital transformation. Finally, future research could explore how organizational culture, leadership styles, and technological infrastructure influence the success of competency development. By taking these steps, BUMDs can build a more agile, skilled, and future-ready workforce, ensuring not only

service excellence but also long-term competitiveness in an increasingly digital and citizen-focused service landscape.

Acknowledgment

The authors would like to express their gratitude to all respondents, particularly BUMD employees in DKI Jakarta, for their valuable time and insights in participating in this study. We also extend our appreciation to our colleagues and academic mentors who provided guidance and constructive feedback throughout the research process. Finally, we acknowledge the support of institutions and organizations that facilitated data collection and analysis, contributing to the successful completion of this study.

References

- Abdallah, W., Tfaily, F., & Harraf, A. (2025). The impact of digital financial literacy on financial behavior: customers' perspective. *Competitiveness Review: An International Business Journal*, 35(2), 347-370. doi:<https://doi.org/10.1108/CR-11-2023-0297>
- Ahmad, F., Widén, G., & Huvila, I. (2020). The impact of workplace information literacy on organizational innovation: An empirical study. *International Journal of Information Management*, 51, 102041. doi:<https://doi.org/10.1016/j.ijinfomgt.2019.102041>
- Ahmed, E. M. (2017). ICT and human capital spillover effects in achieving sustainable East Asian knowledge-based economies. *Journal of the Knowledge Economy*, 8(3), 1086-1112. doi:<https://doi.org/10.1007/s13132-016-0430-4>
- An, M., Lin, J., & Luo, X. R. (2024). The impact of human ai skills on organizational innovation: The moderating role of digital organizational culture. *Journal of Business Research*, 182, 114786. doi:<https://doi.org/10.1016/j.jbusres.2024.114786>
- Aristei, D., Gallo, M., & Vannoni, V. (2024). Preferences for ethical intermediaries and sustainable investment decisions in micro-firms: The role of financial literacy and digital financial capability. *Research in International Business and Finance*, 71, 102483. doi:<https://doi.org/10.1016/j.ribaf.2024.102483>
- Arseneault, R., & Gagnon, J. (2024). Managerial accounting practices, HR metrics, and firm performance. *Advances in Accounting*, 64, 100730. doi:<https://doi.org/10.1016/j.adiac.2024.100730>
- Azeem, M., Ahmed, M., Haider, S., & Sajjad, M. (2021). Expanding competitive advantage through organizational culture, knowledge sharing and organizational innovation. *Technology in Society*, 66, 101635. doi:<https://doi.org/10.1016/j.techsoc.2021.101635>
- Bhutto, S. A., Jamal, Y., & Ullah, S. (2023). FinTech adoption, HR competency potential, service innovation and firm growth in banking sector. *Heliyon*, 9(3). doi:<https://doi.org/10.1016/j.heliyon.2023.e13967>
- Blanka, C., Krumay, B., & Rueckel, D. (2022). The interplay of digital transformation and employee competency: A design science approach. *Technological Forecasting and Social Change*, 178, 121575. doi:<https://doi.org/10.1016/j.techfore.2022.121575>
- Cetindamar, D., Abedin, B., & Shirahada, K. (2021). The role of employees in digital transformation: a preliminary study on how employees' digital literacy impacts use of digital technologies. *IEEE Transactions on Engineering Management*. doi:<https://doi.org/10.1109/TEM.2021.3087724>
- Cheng, Z. M., Bonetti, F., de Regt, A., Ribeiro, J. L., & Plangger, K. (2024). Principles of responsible digital implementation: Developing operational business resilience to reduce resistance to digital innovations. *Organizational Dynamics*, 53(2), 101043. doi:<https://doi.org/10.1016/j.orgdyn.2024.101043>
- Choung, Y., Chatterjee, S., & Pak, T.-Y. (2023). Digital financial literacy and financial well-being. *Finance Research Letters*, 58, 104438. doi:<https://doi.org/10.1016/j.frl.2023.104438>
- Chowdhury, S., Budhwar, P., Dey, P. K., Joel-Edgar, S., & Abadie, A. (2022). AI-employee collaboration and business performance: Integrating knowledge-based view, socio-technical systems and organisational socialisation framework. *Journal of Business Research*, 144, 31-49. doi:<https://doi.org/10.1016/j.jbusres.2022.01.069>

- da Conceição Walkowski, M., dos Santos Pires, P., & Tricárico, L. T. (2019). Community-based tourism initiatives and their contribution to sustainable local development. *Journal of Sustainable Tourism and Entrepreneurship*, 1(1), 55-67.
- Deepa, R., Sekar, S., Malik, A., Kumar, J., & Attri, R. (2024). Impact of AI-focussed technologies on social and technical competencies for HR managers—A systematic review and research agenda. *Technological Forecasting and Social Change*, 202, 123301. doi:<https://doi.org/10.1016/j.techfore.2024.123301>
- Dwiyanti, N. M. C., Luh Putu Agustini Karta, N., Cintya, N. P., & Bendesa, I. N. G. P. (2023). Strategi Pemasaran Museum Gunung Api Batur sebagai Daya Tarik Wisata Edukasi di Kabupaten Bangli. *Jurnal Studi Perhotelan dan Pariwisata*, 2(1), 37-45. doi:<https://doi.org/10.35912/jspp.v2i1.2565>
- Ekawati, D., & Yudoko, G. (2024). Strategy for Automation and Digitalization in Indonesian Aerospace Manufacturing. *Jurnal Bisnis dan Pemasaran Digital*, 3(2), 91-105. doi:<https://doi.org/10.35912/jbpd.v3i2.4510>
- Fauna, A. M., Putri, R. N. H. S., Awallillah, M. R., Anisa, E. N., Putri, D. S., & Sulaiman, M. Y. (2024). Contribution of Competency-Based Curriculum Development to Improving The Branding Quality of ITB Tuban Digital Business Study Program Graduates. *International Conference of Business and Social Sciences*, 4(1), 1193–1199. doi:<https://doi.org/10.24034/icobuss.v4i1.603>
- Hamadamin, H. H., & Atan, T. (2019). The impact of strategic human resource management practices on competitive advantage sustainability: The mediation of human capital development and employee commitment. *Sustainability*, 11(20), 5782. doi:<https://doi.org/10.3390/su11205782>
- Huang, X., Yang, F., Zheng, J., Feng, C., & Zhang, L. (2023). Personalized human resource management via HR analytics and artificial intelligence: Theory and implications. *Asia Pacific Management Review*, 28(4), 598-610. doi:<https://doi.org/10.1016/j.apmr.2023.04.004>
- Imjai, N., Promma, W., Usman, B., & Aujirapongpan, S. (2024). The intertwined effects of digital literacy, agile mindset on design thinking skill and management control competency: Insights from Thai young accountants. *International Journal of Information Management Data Insights*, 4(2), 100244. doi:<https://doi.org/10.1016/j.jiimei.2024.100244>
- Iskandar, Y. (2023). Digital Transformation Model and the Role of HR in Indonesian MSMEs. *International Journal of Business, Law, and Education*, 4(2), 1427-1453. doi:<https://doi.org/10.56442/ijble.v4i2.334>
- Kamkankaew, P., Thanitbenjasith, P., Sribenjachot, S., Sanpatanon, N., Phattarowas, V., & Thanin, P. (2024). How Artificial Intelligence is Helping Businesses Grow and Thrive: The Transformative Role of Artificial Intelligence in Thai B2C Digital Marketing. *International Journal of Sociologies and Anthropologies Science Reviews*, 4(1), 137-164.
- Karim, M. S., Nahar, S., & Demirbag, M. (2022). Resource-based perspective on ICT use and firm performance: A meta-analysis investigating the moderating role of cross-country ICT development status. *Technological Forecasting and Social Change*, 179, 121626. doi:<https://doi.org/10.1016/j.techfore.2022.121626>
- Kokkaew, N., Jokkaw, N., Peansupap, V., & Wipulanusat, W. (2022). Impacts of human resource management and knowledge management on non-financial organizational performance: Evidence of Thai infrastructure construction firms. *Ain Shams Engineering Journal*, 13(6), 101750. doi:<https://doi.org/10.1016/j.asej.2022.101750>
- Lampropoulos, I., Astara, O.-E., Skordoulis, M., Panagiotakopoulou, K., & Papagrigoriou, A. (2024). The contribution of education and ICT knowledge in sustainable development perceptions: The case of higher education students in Greece. *Journal of Human Resource and Sustainability Studies*, 12(1), 15-31. doi:<https://doi.org/10.4236/jhrss.2024.121002>
- Li, J., Wang, H., & Soh, W. (2024). Digital transformation, financial literacy and rural household entrepreneurship. *Finance Research Letters*, 62, 105171. doi:<https://doi.org/10.1016/j.frl.2024.105171>
- Long, T., & Cooke, F. L. (2023a). Advancing the field of employee assistance programs research and practice: A systematic review of quantitative studies and future research agenda. *Human Resource Management Review*, 33(2), 100941. doi:<https://doi.org/10.1016/j.hrmr.2022.100941>

- Long, T., & Cooke, F. L. (2023b). Employee assistance programmes in China: a state-of-the-art review and future research agenda. *Asia Pacific Journal of Human Resources*, 61(1), 3-31. doi:<https://doi.org/10.1111/1744-7941.12345>
- Manurung, A. S. P., & Putro, U. S. (2024). Decision Analysis of ANH Gas Field Using Value Focused Thinking and AHP. *Jurnal Bisnis dan Pemasaran Digital*, 3(2), 155-173. doi:<https://doi.org/10.35912/jbpd.v3i2.4516>
- Miftah, M., & Prasetyo, A. (2024). *Digital Literacy Mastery and its Role in Human Resource Competitiveness*. Paper presented at the 5th Borobudur International Symposium on Humanities and Social Science 2023.
- Murugesan, U., Subramanian, P., Srivastava, S., & Dwivedi, A. (2023). A study of artificial intelligence impacts on human resource digitalization in industry 4.0. *Decision Analytics Journal*, 7, 100249. doi:<https://doi.org/10.1016/j.dajour.2023.100249>
- Paarima, Y., Kwashie, A. A., & Ofei, A. M. A. (2021). Financial management skills of nurse managers in the Eastern Region of Ghana. *International Journal of Africa Nursing Sciences*, 14, 100269. doi:<https://doi.org/10.1016/j.ijans.2020.100269>
- Pilav-Velić, A., Černe, M., Trkman, P., Wong, S. I., & Kadić-Abaz, A. (2021). Digital or innovative: Understanding “Digital Literacy–practice–innovative work behavior” chain. *The South East European Journal of Economics and Business*, 16(1), 107-119. doi:<https://doi.org/10.2478/jeb-2021-0009>
- Piwowar-Sulej, K., Blštáková, J., Ližbetinová, L., & Zagorsek, B. (2024). The impact of digitalization on employees' future competencies: has human resource development a conditional role here? *Journal of Organizational Change Management*, 37(8), 36-52. doi:<https://doi.org/10.1108/JOCM-10-2023-0426>
- Rudiyanto, R., Munawar, N. A., Prayoga, R., Arini, D. U., & Mufliha, D. I. (2025). Maintaining Cooperative Sustainability: The Mediation Role of Performance Measurement Systems. *Annals of Human Resource Management Research*, 5(1). doi:<https://doi.org/10.35912/ahrmr.v5i1.2904>
- Schiuma, G., Santarsiero, F., Carlucci, D., & Jarrar, Y. (2024). Transformative leadership competencies for organizational digital transformation. *Business Horizons*, 67(4), 425-437. doi:<https://doi.org/10.1016/j.bushor.2024.04.004>
- Schöggel, J.-P., Rusch, M., Stumpf, L., & Baumgartner, R. J. (2023). Implementation of digital technologies for a circular economy and sustainability management in the manufacturing sector. *Sustainable Production and Consumption*, 35, 401-420. doi:<https://doi.org/10.1016/j.spc.2022.11.012>
- Selmer, J., & Chiu, R. (2004). Required human resources competencies in the future: a framework for developing HR executives in Hong Kong. *Journal of World Business*, 39(4), 324-336. doi:<https://doi.org/10.1016/j.jwb.2004.08.001>
- Sharma, R., & Gupta, H. (2024). Harmonizing sustainability in industry 5.0 era: Transformative strategies for cleaner production and sustainable competitive advantage. *Journal of cleaner production*, 445, 141118. doi:<https://doi.org/10.1016/j.jclepro.2024.141118>
- Wang, G., Niu, Y., Mansor, Z. D., Leong, Y. C., & Yan, Z. (2024). Unlocking digital potential: Exploring the drivers of employee dynamic capability on employee digital performance in Chinese SMEs-moderation effect of competitive climate. *Heliyon*, 10(4). doi:<https://doi.org/10.1016/j.heliyon.2024.e2558>
- Zaimovic, A., Meskovic, M. N., Dedovic, L., Arnaut-Berilo, A., Zaimovic, T., & Torlakovic, A. (2024). Measuring digital financial literacy. *Procedia Computer Science*, 236, 574-581. doi:<https://doi.org/10.1016/j.procs.2024.05.068>