

The Effects of E-Performance and Digital Leadership on Self-Motivation and Employee Performance in MSMEs

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Abstract. *This study aims to determine the role of e-performance and digital leadership in enhancing self-motivation and employee performance in micro, small, and medium enterprises (MSMEs) in North Luwu. The study employs a quantitative approach targeting all employees involved in MSMEs in North Luwu as the research population. Empirical analysis was conducted using a sample of 309 millennials. Data collection was carried out through an online survey. After passing reliability and validity tests, the data were analyzed using a structural equation model based on partial least squares (PLS-SEM). The research results indicate that e-performance has a significant and positive direct impact on employee performance ($0.001 < 0.005$) and self-motivation ($0.000 < 0.05$). Similarly, digital leadership shows a significant and positive direct effect on employee performance ($0.002 < 0.05$) and self-motivation ($0.000 < 0.05$). Interestingly, however, self-motivation does not have a positive direct impact on employee performance ($0.127 > 0.05$), thus rejecting one of the five hypotheses proposed in this study. This research can contribute to managers and employees of MSMEs regarding the importance of implementing an effective e-performance system and digital leadership to improve MSME employee performance and motivation. Managers must ensure that the e-performance system provides constructive feedback and focuses on key elements such as accessibility and accuracy. Furthermore, digital leadership needs to support the development of technological skills and an innovation-driven culture. The findings of this study can also provide empirical support for the theory of planned behavior, thus providing a more comprehensive model of the relationship between e-performance, digital leadership, self-motivation, and employee performance.*

Keywords: *E performance, digital leadership, self-motivation, employee performance, and MSMEs*

Abstrak. *Penelitian ini bertujuan untuk menentukan peran e-performance dan kepemimpinan digital dalam meningkatkan motivasi diri dan kinerja karyawan pada Usaha Mikro, Kecil, dan Menengah (UMKM) di Luwu Utara. Studi ini menggunakan pendekatan kuantitatif dengan sasaran seluruh karyawan yang terlibat dalam UMKM di Luwu Utara sebagai populasi penelitian. Analisis empiris dilakukan dengan menggunakan sampel sebanyak 309 generasi milenial. Pengumpulan data dilakukan melalui survei online. Setelah data lolos uji reliabilitas dan validitas, data dianalisis dengan model persamaan struktural berbasis partial least squares (PLS-SEM). Hasil penelitian menunjukkan bahwa e-performance berpengaruh signifikan dan positif secara langsung terhadap kinerja karyawan ($0.001 < 0.005$) dan motivasi diri ($0.000 < 0.05$). Demikian pula, kepemimpinan digital menunjukkan efek signifikan dan positif secara langsung terhadap kinerja karyawan ($0.002 < 0.05$) dan motivasi diri ($0.000 < 0.05$). Namun, menariknya, motivasi diri tidak berpengaruh positif secara langsung terhadap kinerja karyawan ($0.127 > 0.05$), sehingga menolak salah satu dari lima hipotesis yang diajukan dalam penelitian ini. Penelitian ini dapat memberikan kontribusi bagi manajer dan karyawan UMKM mengenai pentingnya penerapan sistem e-performance yang efektif dan kepemimpinan digital untuk meningkatkan kinerja dan motivasi karyawan UMKM. Manajer harus memastikan bahwa sistem e-performance memberikan umpan balik konstruktif dan fokus pada elemen-elemen kunci seperti aksesibilitas dan akurasi. Selain itu, kepemimpinan digital perlu mendukung pengembangan keterampilan teknologi dan budaya inovasi. Temuan penelitian ini juga dapat memberikan dukungan empiris untuk teori perilaku terencana, sehingga menyediakan model yang lebih komprehensif tentang hubungan antara e-performance, kepemimpinan digital, motivasi diri, dan kinerja karyawan.*

Kata kunci: *E performance, digital leadership, motivasi diri, kinerja karyawan, and UMKM*

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Introduction

The ability of an organization to adapt and innovate in an era of advancing technology determines its success. The company's capability to respond quickly and effectively to digitalization has now become a primary indicator of success in revitalizing the country's economy (Khaw et al., 2022). Processing, storing, and channeling intellectual capital to prospective employees are crucial for businesses. As a result, expectations regarding leadership styles and the perceptions of the new generation of employees are starting to change in line with the trends of digital transformation. (Artuz et al., 2021). In the intense global competition, employee performance is a crucial factor in achieving ambitious business goals. However, to attain outstanding performance levels, employees need more than just technical skills; they also require effective leadership and high motivation.

Self-motivation is an important factor for digital leaders in achieving success. Highly motivated digital leaders possess a strong drive and determination to lead their teams in facing the changes and challenges brought about by the digital age. They also have the ability to self-regulate and maintain focus on long-term goals, even when confronted with various distractions and obstacles. Self-motivation provides a solid foundation for employees to innovate, collaborate, and achieve high performance. As the new digital era adapts and transforms business strategies, digital leadership becomes crucial for business sustainability (Mollah et al., 2023). In the context of a rapidly evolving and innovative digital landscape, and faced with increasing globalization, it is equally crucial. Empowering corporate leaders to keep pace with the developments in the digital landscape is essential, both for competitiveness and their own sustainability. (Erhan et al., 2022). Many members of the organization may be aware of the importance of innovative leaders. (Kremer et al., 2019).

On the other hand, the term 'Digital Leadership' refers to a leader's ability to leverage digital tools and technology to motivate and guide their team.

This research will explore the crucial role played by E-Performance and Digital Leadership in enhancing self-motivation and employee performance. Developing individuals within the organization to unlock the potential of new digital business models (further) and achieving greater sustainability and success by implementing strategies aligned with the company's goals and mission (Porfirio et al., 2021). Leadership consistently articulates the future vision, supports one-on-one relationship building, and enhances the interest of followers or employees (Al Harbi et al., 2019). We will explore how E-Performance can be used to measure performance, provide constructive criticism, and encourage employees to maximize their potential. We will also examine how digital leaders influence employee motivation, including how they can create a creative and collaborative work culture.

Having a better understanding of the relationship between digital leadership and electronic performance can help us gain insights into how organizations can enhance self-motivation and employee performance in the ever-changing era of digital technology. The leadership style of team leaders can be divided into many different styles, such as transformational, transactional, and others (Darawong, 2020). Questions about the profile and characteristics of digital transformation leaders have emerged due to the importance of the leader's role in directing digital transformation.

Employees' actions/individual behavior are actively constructed by users of technology in their daily practices through actions and interpretations in their workplace Murawski and Bick (2017). The Theory of Planned Behavior (TPB) provides a useful framework for considering how people form their

perceptions, attitudes, and behaviors Ajzen (1991). This study adopts the concept of TPB and analyzes the process of using digital technology by employees in MSMEs. TPB is one of the theories that has been widely applied, particularly in the field of entrepreneurial research (Maalaoui et al., 2018). Therefore, this theory can be used to explore how digital leadership affects employee motivation and performance.

Several findings from previous research have provided crucial information that e-performance and digital leadership are key determinants that can influence self-motivation and employee performance. (Khaw et al., 2022; Muniroh et al., 2022); (Artuz et al., 2021); (Wahyuni, 2020); (Elyousfi et al., 2021); (Indrawan, 2021). However, some previous findings have discovered different results, or there is still a research findings gap. According to Jayanto (2023); Mijaya and Asih (2022), that leadership contribution does not have a positive and significant impact on employee performance. Furthermore, according to Fauzi (2022), e-performance does not significantly affect motivation. According to Mijaya and Asih (2022), e-performance does not significantly affect employee performance. Considering that employee performance in a company is an important component (Rahmawati and Zakiy, 2023), this study aims to provide deeper insights into this field by examining the role of E-Performance and digital leadership in enhancing self-motivation and employee performance. in this field by examining the role of E-Performance and digital leadership in improving employee self-motivation and performance.

This research contributes to several areas. First, it provides a more comprehensive model of the relationship between e-performance, digital leadership, self-motivation, and employee performance. Second, this research has analyzed the direct impact of digital leadership on self-motivation and employee performance, which has not been done in previous research (Fauzi, 2022).

Finally, this research provides new practical insights by enabling practitioners and leaders or owners of micro, small, and medium-sized businesses to optimize e-performance and digital leadership, which will impact self-motivation and employee performance (Indrawan, 2021).

Literature Review

E-Performance

E-Performance is a system based on advances in information technology designed to improve performance evaluation. Therefore, E-Performance performance management is expected to make it easier for users or performance managers and employees to manage employee performance (Fauzi, 2022). Electronic performance refers to the ability and efficiency of an electronic system or device in carrying out its functions optimally.

Electronic Performance (E-Performance) is an internet and Android-based system used by the government that makes it easier for officials to enter activities and make work reports (Indrawan, 2021). This performance can be measured based on a number of parameters, including speed, power, accuracy, reliability and energy efficiency. An electronic device or system is considered to have good performance if it is able to provide the desired results in the shortest possible time, with a high level of reliability, and uses power efficiently.

Digital leadership

According to Rantauwati et al (2022) stated that Leadership in the digital era is an important ability that individuals must have to create solutions to various problems in the digital era. Leadership style in the digital era does not only require understanding the concept of leadership, but also must be able to master soft skills (non-technical skills) and hard skills (technical skills). Digital or technological leadership is the third sub-theme which encourages leaders to have technological skills and apply technology wisely in organizational activities (Khaw et al., 2022) Leaders are people

who shape the communities in which they live, influence and inspire people, and make significant contributions by encouraging society to achieve its goals (Artuz et al., 2021) A digital leader is someone who is familiar with technology, uses information retrieval, communicates with stakeholders, and manages human resources (Zhong, 2017).

Self-Motivation

Self-motivation is an inner drive that encourages someone to take action. A person takes steps towards a certain goal because of this drive (Mijaya & Asih, 2022). Motivation can also be referred to as a driving force, desire, support, or needs that spur a person to become enthusiastic, so that he can take action and act according to certain methods that lead to optimal results (Riza Faizal, Maman Sulaeman, 2019).

Motivation is a need-satisfying process, which means that when specific factors meet individual needs, the person will wholeheartedly try to achieve organizational goals by achieving optimal work results (Pancasila et al., 2020) Based on several definitions of self-motivation, it can be concluded that self-motivation is an internal drive that encourages a person to take steps, achieve goals, and overcome obstacles. It is an inner strength that drives individuals to strive, learn, and continue to develop personally in order to achieve success and fulfill themselves

Employee performance

Employee performance refers to the extent to which a worker provides results and contributions when carrying out their duties and responsibilities at work. Performance includes the achievement of work results and work behavior that have been manifested in completing assigned tasks and responsibilities within a certain time period (Muniroh et al., 2022). Performance is an important mechanism to be explained through the management of performance goals and standards, as well as being a motivator, similar to the influence of less intense communication and a decline in organizational culture.

In general, working remotely tends to improve organizational performance and productivity (Wolor et al., 2021).

Performance is the output obtained or something done in the form of a product or service provided by an individual or group, so that achievement can be assessed from two perspectives, namely the individual and organizational levels (Rantauwati et al., 2022). Performance is a reflection of the extent of an organization's success or failure in carrying out its core duties and functions to achieve its goals, objectives, vision and mission. In simple terms, performance is an achievement that can be produced by an organization within a certain period of time (Widayati et al., 2017).

Development of Hypotheses and Conceptual Framework

E-Performance and Employee Performance

E-Performance, which is technology-based performance assessment, plays a crucial role in enhancing the performance of employees, particularly those involved in Micro, Small, and Medium Enterprises (UMKM). With this approach, companies can leverage technology to gather more accurate and measurable data regarding individual performance. According to Claypoole & Szalma (2019) E-Performance has a significant relationship with employee performance. This finding is consistent with previous research (Fauzi, 2022) That E-Performance also has a significant relationship with employee performance. Thus, the proposed hypothesis is:

H₁: posits that E-Performance has a significant impact on employee performance.

E-Performance and Self-Motivation

E-Performance is a crucial element that can influence someone's motivation to enhance the performance of employees in Micro, Small, and Medium Enterprises (UMKM). E-Performance substantially affects the performance levels of individuals who are part of the community of Micro, Small, and Medium Enterprises (UMKM) practitioners. According to Indrawan (2021) E-Performance

significantly influences motivation. However, there are differences compared to the research conducted by (Fauzi, 2022) Arguing that E-Performance is not significant to the variable of motivation. Thus, the proposed hypothesis is :

H₂: It is hypothesized that E-Performance has a significant impact on motivation

Digital Leadership and Employee Performance

In the technology-driven business era, digital leadership is crucial for enhancing the performance of employees, especially those involved in Micro, Small, and Medium Enterprises (UMKM). Leaders who understand and implement digital innovation can inspire their teams to achieve their highest potential. According to Rantauwati et al (2022) Digital leadership has a significant influence on employee performance. This finding is consistent with research conducted by (Khaw et al., 2022) Who also stated that the Digital Leadership variable has a significant relationship with employee performance. Thus, the proposed hypothesis is :

H₃: posits that there is a significant relationship between digital leadership and employee performance.

Digital Leadership and Self-Motivation

Digital leadership plays a crucial role in enhancing motivation in the modern workplace. By leveraging adaptive technology and innovative approaches, leaders can create

an environment that inspires employees, particularly those involved in Micro, Small, and Medium Enterprises (UMKM). According to Sunaryo (2021) Digital leadership has a significant influence on motivation, as supported by research (Widayati et al., 2017) Also stating that the digital leadership variable has a significant impact on motivation. Thus, the proposed hypothesis is:

H₄: posits that Digital Leadership has a significant influence on self-motivation.

Self-Motivation and Employee Performance

Motivation plays an undeniable role in enhancing employee performance at work. When employees feel motivated, they generally exhibit higher levels of enthusiasm in carrying out their tasks in Micro, Small, and Medium Enterprises (UMKM). This enthusiasm is reflected in a higher commitment to company goals, as well as a strong dedication to achieving the pursued vision. According to Widayati (2017) Motivation has a significant relationship with employee performance. Thus, the proposed hypothesis is:

H₅: posits that there is a significant relationship between motivation and employee performance

Conceptual Framework

Based on the explanation of hypothesis development, the conceptual framework can be presented in Figure 1.

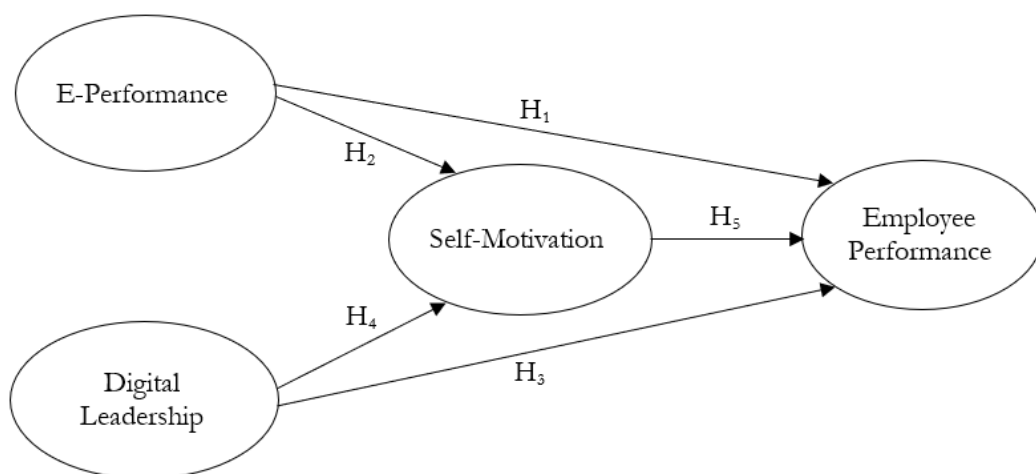


Figure 1.
Conceptual Framework of The Research.

Research Methodology

This study employs a quantitative approach to explore various operational aspects and performance of micro, small, and medium enterprises (MSMEs) in North Luwu Regency. The research population includes all MSME actors in the region, with the primary aim of understanding the local economic dynamics, challenges faced, and strategies implemented by business actors to enhance their efficiency and competitiveness.

Considering that the overall sampling frame in this study is unknown and the total number of respondents is difficult to identify, it is not possible to apply probability sampling in this study to obtain a random and representative sample. With this consideration in mind, we used non-probability sampling to collect data. Latan et al. (2020) recommend the use of non-probability sampling when the number of respondents is large and uncountable. Respondents were identified using snowball sampling, starting by identifying several MSME actors through personal and professional social media networks.

These initial participants were then asked to recommend other millennial entrepreneurs they knew who might be interested in participating in this study. This process continued until a sample size of 385 respondents was obtained, and they agreed to take part in this research survey. Of the total number of questionnaires returned and received, there were 246, but 60 were excluded due to incompleteness. The total number of questionnaires amounted to 186, with a response rate of 48.31%. According to Baruch and Holtom (2008), a response rate of >15% is widely considered acceptable among studies using survey methods. The minimum sample size for structural equation modeling (SEM) is 100 samples (Hair et al., 2010) with a 5% error rate. Therefore, as this study has 186 responses, it meets the minimum sample requirements.

A core part of quantitative research that often influences research outcomes is measurement items and scales. Good measurement items must be able to capture the constructs being measured. This study adopts measurement items from previous empirical research (Table 1). The use of existing measurement items is generally considered a better practice than developing new ones, given the complexity of scale enhancement (DeVellis, 2016; Latan et al., 2020). A total of 19 measurement items related to constructs of E-Performance, Digital Leadership, Self-Motivation, and Employee Performance were assessed with a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Hypothesis testing (see Figure 1) was conducted using structural equation modeling (SEM) techniques through partial least squares (PLS-SEM). This study uses SmartPLS 4 as the software package. The reasons for using Partial Least Squares (PLS-SEM) are (i) not all items in this study's data are normally distributed; (ii) in the literature, our research model (Figure 1) is still untested, so the purpose of this study is to confirm the theory; and (iii) the research model falls into the category of complex models (Richter et al., 2016). PLS-SEM has been widely used in marketing and management research to analyze causality between latent constructs (Guenther et al., 2023). Additionally, this technique is effective in estimating causal relationships in theoretical models based on empirical data (Hair et al., 2017).

Table 1.
Operational Definition and Variable Indicators

Variable	Definition	Indicator	Source
E-Performance (EP)	Evaluation or assessment of employee performance that is supported by direct evidence or data from real experience or concrete observations	1. Access 2. Scope 3. Frequency 4. Accuracy of service 5. Accountability 6. Suitability of the program to needs	(Qohar, 2018)
Digital leadership (DL)	Digital leadership based on real experience" is the concept of leading an organization using first-hand data related to digital technology and innovation	1. Create and maintain a digital culture 2. Supporting technology - based professional development 3. Provide digital leadership and management 4. Facilitate and provide digital issues	(Zhong, 2017)
Self-Motivation (SM)	Individual motivation" is an understanding of self-motivation based on evidence or data from direct experience	1. There is desire 2. Desire to succeed 3. Encouragement and needs in learning 4. There are hopes and aspirations for the future	(Riza Faizal, Maman Sulaeman, 2019)
Employee Performance (EPM)	Employee performance is an assessment of employee performance based on facts or direct data	1. Quantity of work output 2. Quality of work results 3. Discipline 4. Absenteeism 5. Ability to work together	(Widayati et al., 2017)

Results and Discussion

Respondent Characteristics

Based on the characteristics of the research sample information (Tabel 2), the gender of men (57.20%) is more dominant compared to women (32.80%). Furthermore, the age group of respondents that predominates is 36-40 years old (34.41%), followed by the age groups of 31-35 years old (25.81%), 41-45 years old (16.12%), 26-30 years old (11.83%), under 25

years old (6.45%), and over 46 years old (5.38%). As for the type of business, the culinary sector dominates (50.54%), followed by the manufacturing sector (clothing) (31.18%) and services (18.28%). Regarding the educational level of the respondents, the majority have a senior high school education (67.20%), followed by junior high school education (20.43%) and bachelor's degree (12.37%).

Table 2.
Description of Respondents

Variable	Cases (%)	Variable	Cases (%)
Gender		Type of a business	
Men	125 (57.20%)	Culinary	94 (50.54%)
Women	61 (32.80%)	Manufacture (clothing)	58 (31.18%)
Age (year)		Services	34 (18.28%)
<25	12 (6.45%)	Education	
26-30	22 (11.83%)	Junior High School	38 (20.43%)
31-35	48 (25.81%)	Senior High School	125 (67.20%)
36-40	64 (34.41%)	Bachelor of Science	23 (12.37%)
41-45	30 (16.12%)		
>46	10 (5.38)		

Outer Model Evaluation

Penilaian outer model dalam penelitian ini dilakukan dengan kriteria penilaian yaitu convergen validity dan discriminant validity.

Convergent Validity and Discriminant Validity

Konvergent validity is related to the principle that the measures (manifest variables) of a construct should have high correlations. Convergent validity is assessed by examining the factor loading values and comparing them to practical rules (> 0.60). Additionally, the Average Variance Extracted (AVE) values are considered, and these values should surpass

practical rules (> 0.50). The validity test used in this study to assess the validity of the Structural Equation Model (SEM) is convergent validity and discriminant validity. There are two ways to determine the validity of the PLS-SEM model using convergent validity techniques: the outer loading value (factor loading) and the Average Variance Extracted (AVE) value. Furthermore, discriminant validity testing with the assumption that the square root AVE $>$ of the relationship between latent variables in the research model (Hair et al., 2011; Ghoali and Latan, 2015).

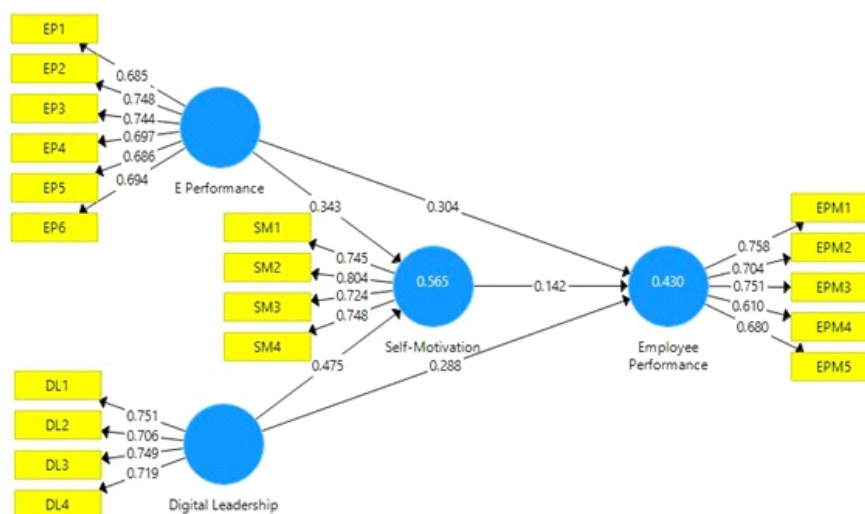


Figure 2.
Outer Model Evaluation

Outer Loading

For the value of convergent validity (Table 3), the factor loading value for each construct is obtained as > 0.60. The factor loading values for the constructs are as follows: e-performance (EP1 = 0.685; EP2 = 0.74; EP3 = 0.744; EP4 = 0.697; EP5 = 0.686; EP6 = 0.694), digital leadership (DL1 = 0.751; DL2 = 0.706; DL3 = 0.749; DL4 = 0.719), self-motivation (SM1 = 0.745; SM2 = 0.804; SM3 = 0.724; SM4 = 0.74), and employee performance (EPM1 = 0.758; EPM2 = 0.704; EPM3 = 0.751; EPM4 = 0.610; EPM5 = 0.680). Furthermore, the AVE (average variance extracted) value for each construct is > 0.50. The AVE values are: e-performance =

0.503; digital leadership = 0.536; self-motivation = 0.572; employee performance = 0.501. Furthermore, the discriminant validity values (Table 4) and (Table 5) have met the requirements, namely that the square root of AVE is greater than the correlations between latent constructs. The correlation values between each latent construct (Table 4) are as follows: e-performance (Square Root of AVE = 0.709 > 0.678; 0.594; 0.665), digital leadership (Square Root of AVE = 0.732 > 0.678; 0.595; 0.708), self-motivation (Square Root of AVE = 0.756 > 0.708; 0.665; 0.548), and employee performance (Square Root of AVE = 0.708 > 0.595; 0.594; 0.548).

Tabel 3.
Outer Model Evaluation

Indicator/Item Construct	Loading Factor	Average Variance Extracted (AVE)	Composite Reliability	Cronbach's alpha
E Performance				
EP1	0.685			
EP2	0.748			
EP3	0.744	0.503	0.859	0.802
EP4	0.697			
EP5	0.686			
EP6	0.694			
Digital Leadership				
DL1	0.751			
DL2	0.706	0.536	0.822	0.711
DL3	0.749			
DL4	0.719			
Self-Motivation				
SM1	0.745			
SM2	0.804	0.572	0.842	0.751
SM3	0.724			
SM4	0.748			
Employee Performance				
EPM1	0.758			
EPM2	0.704			
EPM3	0.751	0.501	0.829	0.745
EPM4	0.610			
EPM5	0.680			

Tabel 4.
Laten Variable Correlation

	Digital Leadership	E Performance	Employee Performance	Self-Motivation
Digital Leadership	1,000	0,678	0,595	0,708
E Performance	0,678	1,000	0,594	0,665
Employee Performance	0,595	0,594	1,000	0,548
Self-Motivation	0,708	0,665	0,548	1,000

Tabel 5.
AVE Square Root Value

	AVE	AVE Square Root
E Performance	0.503	0.709
Digital Leadership	0.536	0.732
Self-Motivation	0.572	0.756
Employee Performance	0.501	0,708

Outer Model Reliability Test

Based on the reliability test results (Table 3), the composite reliability and Cronbach's alpha values for each latent construct were found to be greater than 0.70. Below are the composite reliability values for e-performance.

Inner Model Evaluation

There are two stages conducted in the evaluation of the inner model in this study: considering the coefficient of determination (R Square) and the significance values through bootstrapping techniques. The analysis results for testing at this stage are presented in (Table 6) and (Figure 3).

Evaluation R-Square Value

The R square value is one of the metrics used in evaluating the inner model stage. The criteria for the R square value limits are as follows:

a value of 0.25 is considered weak, 0.50 is considered moderate, and 0.75 is considered strong (Hair et al., 2011). Based on the analysis results (Table 6), the R square values for the constructs of self-motivation and employee performance can be determined.

The R square value for the self-motivation construct is 0.565, which is interpreted as the variability in the self-motivation construct that can be explained by e-performance and digital leadership in the research model, accounting for 56.5% (moderate category). Subsequently, the R square value for the employee performance construct is 0.430, which is interpreted as the variability in the employee performance construct that can be explained by self-motivation in the research model, accounting for 43% (weak category).

Table 6.
R Square Value

	R-Square	Probability Value
Self Motivation	0.565	0.000
Employee-Performance	0.430	0.000

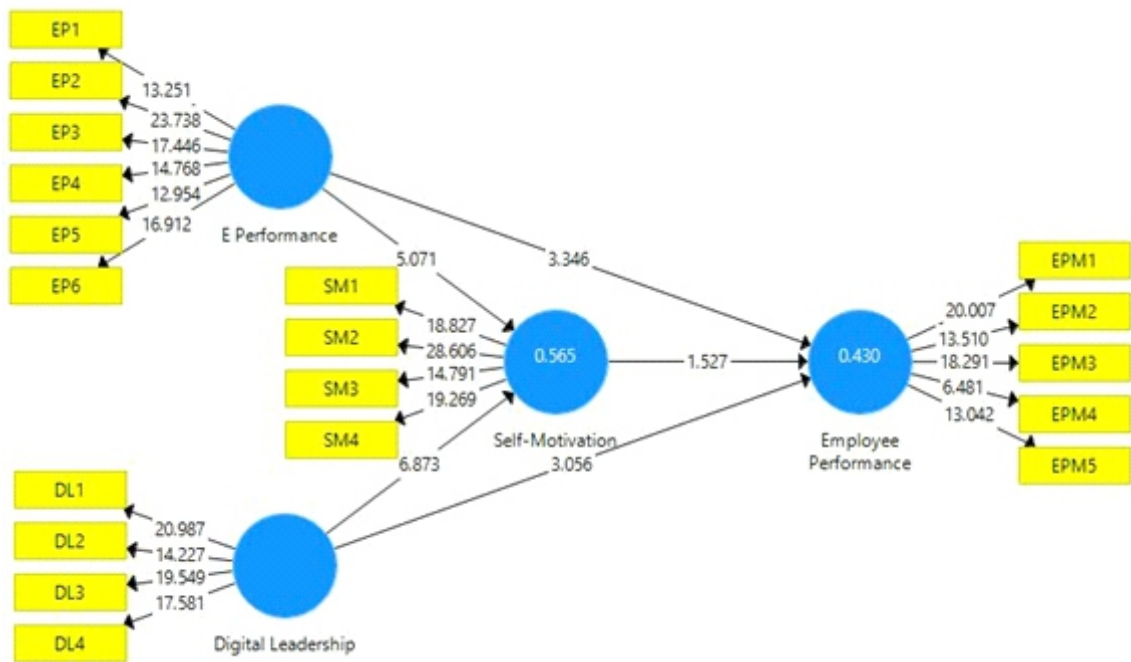


Figure 3.
Inner Model Evaluation

Evaluation of Significant Values

In the evaluation stage, the significance values are assessed by observing the magnitude of the path coefficient. This stage uses the bootstrapping technique (Table 7). Based on the path coefficient values for the first hypothesis (H1), e-performance has a significant effect on employee performance ($0.001 < 0.05$). For the second hypothesis (H2), e-performance has a significant effect on self-motivation ($0.000 < 0.05$). The third hypothesis (H3) states that digital leadership has a significant effect on employee performance ($0.002 < 0.05$). Furthermore, for the fourth hypothesis (H4), digital leadership has a significant effect on self-motivation ($0.000 < 0.05$). For the final hypothesis (H5), self-motivation does not have a significant effect on employee performance ($0.127 > 0.05$).

Discussion

This study analyzes the influence of e-performance and digital leadership on self-motivation and employee performance in

MSMEs. Specifically, our main contributions are presented as follows:

First, we found that e-performance has a positive effect on employee performance in Micro, Small, and Medium Enterprises (MSMEs). Our findings indicate that the effective use of e-performance systems, which include elements such as accessibility, scope, frequency, service accuracy, accountability, and program alignment with needs, is positively perceived by the respondents. This directly contributes to increased transparency and accuracy in employee performance evaluations. This e-performance system enables more systematic monitoring of employee achievements and provides real-time constructive feedback, which in turn motivates employees to continuously improve their performance. This fact aligns with several previous research findings. For example, Claypoole & Szalma (2019); Fauzi (2022), which state that e-performance has a significant relationship with employee performance.

Table 7.
Hypothesis Testing

Hypotheses	Relationships	Path Coefficients	T statistics	R Square	P values	Decision
Direct effect						
H1	EP → EPM	0.304	3.346**		0.001**	Supported
H2	EP → SM	0.343	5.071**		0.000**	Supported
H3	DL → EPM	0.288	3.056**		0.002**	Supported
H4	DL → SM	0.475	6.873**		0.000**	Supported
H5	SM → EPM	0.142	1.257 ^{ns}		0.127 ^{ns}	Not Supported
Indirect effect						
	EP → SM → EPM	0.049	1.420 ^{ns}		0.156 ^{ns}	
	DL → SM → EPM	0.068	1.468 ^{ns}		0.142 ^{ns}	
				SM	0.565	
				EPM	0.430	
Total effect						
H1	EP → EPM	0.353	4.268**		0.000**	
H2	EP → SM	0.343	5.071**		0.000**	
H3	DL → EPM	0.356	4.194**		0.042**	
H4	DL → SM	0.475	6.873**		0.042**	
H5	SM → EPM	0.142	1.527 ^{ns}		0.127 ^{ns}	

Second, we found that e-performance has a positive effect on self-motivation. Our findings imply that the effective use of e-performance systems, which include accessibility, scope, frequency, service accuracy, accountability, and program alignment with needs, is positively perceived by the respondents and plays an important role in enhancing employee self-motivation. This occurs because a well-implemented e-performance system can clarify goals, provide constructive feedback, and facilitate fair assessments, which in turn supports the enhancement of employees' internal motivation to achieve better performance. This fact aligns with the research findings of Indrawan (2021), which indicate that e-performance significantly affects motivation.

Third, we found that digital leadership has a positive effect on employee performance. This finding implies that digital leadership, which includes the creation and maintenance of a

digital culture, support for technology-based professional development, the provision of digital leadership and management, and the facilitation and provision of solutions to digital issues, can be a major driver in enhancing employee performance. Effective digital leadership not only supports adaptation to new technologies but also facilitates skill development, promotes a culture of innovation, and improves operational efficiency, all of which contribute to the overall enhancement of employee performance in MSMEs. This fact aligns with the research findings of Rantauwati et al. (2022) and Khaw et al. (2022), which state that digital leadership has a significant influence on employee performance.

Fourth, we found that digital leadership has a positive effect on self-motivation. This finding suggests that digital leadership, which includes the creation and maintenance of a digital culture, support for technology-based

professional development, the provision of digital leadership and management, and the facilitation and provision of solutions to digital issues, can be a major driver in enhancing employee self-motivation. Effective digital leadership can clarify goals, provide constructive feedback, and create an environment that supports innovation and skill development, which in turn motivates employees to achieve higher performance and contribute more effectively to the attainment of organizational goals. This fact aligns with several previous research findings. For instance, Sunaryo (2021) and Widayati et al. (2017) have indicated that digital leadership has a significant relationship with self-motivation.

However, in the final finding of this study, we found evidence that self-motivation does not impact employee performance. This finding suggests that aspects of self-motivation, including the desire for success, drive and need for learning, and future hopes and aspirations, are not well perceived by the respondents. In the context of Micro, Small, and Medium Enterprises (MSMEs), it is possible that these factors are not sufficiently understood or applied in daily practices, and thus do not contribute directly to improving employee performance. Factors such as lack of support from management, resource constraints, or ineffective communication regarding goals and aspirations may be the main causes of this phenomenon. These results do not support previous findings (Widayati, 2017).

Conclusion

From the results of the conducted research, it can be stated that the significant role of e-performance and digital leadership for MSMEs actors in North Luwu lies in their ability to enhance employee performance through the utilization of technology and leadership styles that incorporate innovation, skill development, and adaptation to change. Empirically, this opens substantial opportunities for business growth in the current digital era. The research also affirms

that both e-performance and digital leadership play crucial roles in boosting self-motivation and performance among MSMEs employees in North Luwu. However, the path coefficient analysis (Table 7) reveals that all variables have significant effects, except for self-motivation, which does not show a positive and significant influence on employee performance. This indicates the need for a specific approach in managing self-motivation to directly impact employee performance in the MSMEs environment of North Luwu in the digital era. Thus, the empirical findings of this research support the urgency for MSMEs employees in North Luwu to strengthen e-performance and digital leadership aspects to support self-motivation and performance in the digital era, aligning with the acceptance and rejection of hypotheses in this study.

Practical and Managerial Implications

The findings of this research have significant practical and managerial implications in the context of SMEs. Practically, the implementation of an effective e-performance system can enhance employee performance by increasing transparency and accuracy in evaluations. This system also plays a role in boosting employees' self-motivation by clarifying goals and providing constructive feedback. Additionally, digital leadership that supports the development of technology-based skills and fosters an innovation-driven culture has been shown to improve employee performance and self-motivation. Good managerial support is also necessary to ensure that self-motivation contributes to performance improvement by enhancing communication regarding employees' goals and aspirations.

The managerial implications of this study emphasize the importance of implementing e-performance systems and digital leadership to improve employee performance and motivation in MSMEs. Managers must ensure that the implemented e-performance system has elements such as optimal accessibility, coverage, frequency, service accuracy, and accountability. The system must be designed to

provide real-time constructive feedback, thereby clarifying goals and increasing employee self-motivation. In addition, effective digital leadership must focus on developing technology skills and creating a culture of innovation in the workplace. Managers need to create a supportive environment, provide constructive feedback, and improve communication about employee goals and aspirations. Continuous support and adequate resources are also important to ensure that employee self-motivation can contribute effectively to improved performance.

Limitation and Future Study

Moreover, there are some limitations to our research. First, the sample size used was 186, which is relatively small, while the standard sample size for structural equation modeling is around 200 to 300 samples. Therefore, future research is recommended to increase the sample size for more representativeness. Second, this study focused only on one region, namely North Luwu, so the results cannot be generalized to other areas in Indonesia. Future researchers are advised to expand the study to other regions in Indonesia, such as Java Island. Third, this study does not adequately explain the relationship between self-motivation and employee performance. Thus, future research could investigate the relationship between these two variables. Fourth, the R square value remains in the weak category. Therefore, there is an opportunity to explore other influencing factors, such as self-confidence and organizational culture within the research model.

Declarations

Author contribution

All authors contributed equally as the main contributors of this paper. All authors read and approved the final paper.

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Competing interest

The authors declare that they have no conflicts of interest to report regarding the present study.

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