THE USE OF E-COMMERCE AND QRIS AS DIGITAL PAYMENT SOLUTIONS TO ENHANCE SALES PERFORMANCE IN MSMES IN WEST JAVA

Darlene Gabriella S.[1]
Telkom University, Bandung, Indonesia
darlenegabr@gmail.com

Lia Yuldinawati[2]
Telkom University, Bandung, Indonesia
liayuldi@telkomuniversity.ac.id

Abstract

This study aims to examine the impact of digitalization on the performance of MSMEs, focusing on how the adoption of e-commerce and QRIS affects the sales performance of MSMEs in West Java through competitive advantage. The study also explores the potential of MSMEs in the current era of digitalization and provides recommendations based on the obtained results to support the growth of MSMEs on a national scale. To achieve these objectives, the study employs a quantitative analysis method. The quantitative component focuses on statistical analysis of the e-commerce and QRIS utilization among West Java MSMEs, MSMEs' sales performance, and MSMEs' competitive advantages in digitally active MSMEs. The analysis method in this study uses non-probability sampling and collected data from 400 MSME owners/actors in West Java. The data was collected using a survey and conducted in a non-contrived setting. This study uses SPSS version 29 for data processing, including validity testing, reliability testing, descriptive analysis, and three classical assumption tests, including normality, multicollinearity, and heteroscedasticity. In this study, a t-test, path analysis, and Sobel test were carried out on hypothesis testing. The study highlights that MSMEs that have successfully integrated digital technologies experienced improved business performance, including increased sales, expanded customer base, and improved operational efficiency. This study also proves the mediating role of competitive advantage which significantly and positively affects sales growth in MSMEs. The results of this study indicate the influence of partial mediation, namely complementary mediation.

Keywords: Sales Performance, Competitive Advantage, E-Commerce, QRIS

INTRODUCTION

The digital revolution has fundamentally reshaped the business landscape, particularly for Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. Study by (Anggadwita et al., 2021) showed that technology and innovation capabilities have a positive and significant effect on the business resilience of MSMEs. The development of information technology is highly influential in all sectors (Santoso et al., 2021). This shift has fundamentally reshaped how MSMEs operate, interact with customers, and compete in the marketplace. Embracing technological advancements becomes crucial for MSMEs to thrive and stay competitive.

By using digital technology optimally in running their business, MSMEs can get several benefits, including being able to reach a larger consumer base, increase income, facilitate monitoring of business activities, and reduce costs, especially marketing, logistics, and shipping costs. Some previous studies have also pointed out the importance of digital technology adoption and capabilities for micro, small, and medium enterprises particularly in improving their competitiveness and performance (Duch-Brown et al., 2017) (Jafari Sadeghi & Biancone, 2018) (Pal et al., 2008) (Zhou et al., 2019).

Among the transformative tools reshaping the business landscape, the previous graphs have shown that Electronic Commerce (E-Commerce) and Electronic Money emerge as pivotal contributors to the modernization of transactional processes. This digital leap transformed consumer behavior, driving a surge in online shopping and a preference for contactless transactions. Generally, online sales on average contribute 10-20 percent of MSME business turnover.

Responding to these dynamic trends, Bank Indonesia published the Indonesian Payment System Blueprint 2025 (BSPI 2025) in November 2019. This blueprint is oriented towards efforts to build a healthy ecosystem to guide digital economic and financial development in Indonesia. In its development, QRIS has facilitated payment connectivity between countries since 2022, covering Malaysia, Thailand, and now Singapore. Strong synergy between countries, especially in regions under the umbrella of Regional Payment Connectivity (RPC), is one of the main strategies in expanding QRIS acceptance which will be of great benefit to the trade and tourism sectors, especially for MSME players.

In terms of transaction value, QRIS transactions reached Rp 82.7 trillion in the fourth quarter of 2023, an increase of 170% year-on-year. The volume of QRIS transactions also increased by 137% year-on-year to 777.41 million. The growth of QRIS users and transactions is being driven by several factors, including the increasing adoption of e-commerce, the government's push for cashless payments, and the convenience of using QRIS (Bank Indonesia, Proyek Garuda).

The rapid rise of QRIS in Indonesia is particularly noteworthy for its impact on the micro, small, and medium-sized enterprise (MSME) sector. Data reveals a staggering 91.9% of the nearly 29.63 million merchants adopting QRIS fall under the MSME category. The portion of micro businesses is 55.70%, small 30.17%, medium 6.02%, and large 3.74%. This trend signifies a significant shift towards digital payment acceptance within the MSMEs sector.

The acceptance of QRIS within the MSMEs sector is supported by various reasons, mainly because of the benefits that the system provides. Research by (Wardhani et al., 2023) shows that some of the benefits of using QRIS as a digital payment tool are to make transactions faster, easier, cheaper, safer, and more reliable, increase the financial performance of MSMEs in terms of the number and nominal of transactions, and increase sales turnover and business cash flow rapidly up to two times. As for recording sales using QRIS, recording becomes easier and more accurate.

The use of QRIS to empower MSMEs is expected to increase the productivity of MSMEs in Indonesia, both in terms of transactions and nominal sales, profits, and cost efficiency (Sulistyaningsih & Dr. Hanggraeni, 2021). Additionally, embracing the efficiency of digital economy adoption, namely e-commerce holds immense potential for MSMEs to not only boost sales and productivity but also establish a competitive edge by embracing the efficiency and convenience offered by digital technologies.

Various authors have researched the benefits of the digitalization of processes in businesses, (Graupner et al., 2021) (Ahuja et al., 2021) and showed that e-commerce is growing as an additional revenue stream for companies. Previous research from (Octavia et al., 2020) shows that in Indonesian MSMEs, E-Commerce has a positive and significant relationship to business performance. This research is also in line with research from

(Udayana et al., 2024) which shows that in MSMEs, E-Commerce has a positive and significant relationship to business sustainability. Furthermore, (Wahyuni et al., 2020) found that the use of e-commerce in the MSMEs business in Jember provides a beneficial impact on business performance, to be precise financial performance, service performance, marketing performance, sales performance, internal operating performance, and innovation performance.

Competitive advantage is one of the important factors in improving a company's sales performance. Digital tools can improve a company's competitive advantage (Nelson, 2001). The influence of digital tools on the performance of MSMEs is getting bigger when through competitive advantage. This is due to the existence of several benefits of competitive advantages that can be achieved by MSMEs using e-commerce, including reading market movements and responding to customer needs quickly, which leads to the improvement of MSMEs performance (Irwan Hariandi et al., 2019). This is in line with research by (Noor & Shariff, 2022) that showed competitive advantage has a direct positive and significant influence on business performance. The significant effect of competitive advantage on business performance suggests firms with greater competitive advantage tend to achieve higher business performance than competitors.

While existing research explores the potential benefits of e-commerce and cashless payments for MSMEs, a gap exists in understanding their specific impact on sales performance, through a mediating role of competitive advantage, especially within the unique context of West Java. Therefore, the author figured that it is necessary to test the significance of the impact to provide detailed insights that could then be used for practical and theoretical aspects in the future. By providing detailed insights into the effective use of e-commerce and QRIS, the findings in this study hope to guide MSMEs and business owners to consider these technologies in their businesses. The successful integration of these digital tools is envisioned to support the overarching goals of the government's movement, thereby fostering a more robust digital economy for the nation. Therefore, this thesis seeks to unravel how the utilization of E-Commerce and QRIS as digital payment tools play a crucial role in elevating sales performance through their competitive advantage within the unique context of West Java, as the largest number of MSME units nationwide.

Based on the problem statement above, this research aims to determine whether using e-commerce and QRIS as digital payment tools can affect or improve the sales performance of MSMEs in West Java through competitive advantage.

RESEARCH METHOD

In this research, the researcher applied quantitative research methods to analyze data descriptively. The results of this analysis are then used to provide a general overview of the influence of e-commerce and QRIS utilization through competitive advantage to increase sales performance in West Java MSMEs. The data analysis process was carried out using SPSS software. This research utilizes questionnaires to collect data. Independent variables are variables that affect or cause changes or the emergence of dependent variables. The independent variables in this thesis are the Utilization of E-Commerce (X1) and the Utilization of QRIS (X2). The dependent variable is the variable whose value is influenced by the independent variable. The dependent variable in this study is MSMEs' Sales Performance (Y). Based on the types of scales that have been described, in the context of this research, an ordinal scale is used to describe categories and indicate, while a Likert scale is used to assess individual or collective views, opinions, and understanding of social conditions (Sugiyono, 2022).

Thus, the population in this study are all MSMEs that have used E-commerce and provide a digital payment method in the form of QRIS in the West Java area which is 1,494,723 business units. Thus, the sample of this research was chosen by non-probability sampling technique, specifically convenient sampling. In this study, a confidence level of 95% and a level of detail of 5% were chosen. The population size (N) is the number of MSMEs in West Java Province which according to SatuData Kemenkop UMKM 2024 is 1.494.723 units of MSMEs. From the results of the calculations using the Slovin formula, it was found that the total number of samples available was 399,892985 respondents. To describe the population to be more accurate, we decided to round it to 400 respondents. Thus, we will involve a sample of 400 respondents, representing MSMEs in West Java who have adopted e-commerce and using QRIS as one of their payment options.

In this context, the primary data was obtained from respondents' responses to questionnaires with closed questions. This research mainly uses primary data as the data source. In this research, secondary data used included a literature review related to the research problem as well as various documentary information found through online sources. This secondary data is obtained from articles, books, statistical data, and records. In this study, data collection was carried out using a questionnaire data collection technique. The questionnaire will be shared online via social media platforms such as WhatsApp, Instagram, and others. Respondents are given a link to a Google form containing appropriate questions and criteria that have been described previously.

RESULTS AND DISCUSSION

Respondents Characteristics

The survey results reveal that the majority of respondents (60.8%) are male, while 39.2% are female, indicating a higher proportion of male participants. In terms of age, 55.8% of respondents fall within the 17-30 age group, followed by 29.3% in the 31-40 range, and 14.9% over 45, suggesting a younger demographic. Educationally, nearly half (49.9%) have completed high school, with 29.5% holding a bachelor's degree, and 16.1% having completed junior high school. A small percentage (4.5%) have other educational backgrounds.

Regarding business sectors, the culinary industry, focusing on food and beverages, dominates the survey, with 49.4% of respondents operating in this field. The fashion sector follows with 28.1%, while other industries like handicrafts (7.3%), garment production (6.5%), and services (6.3%) are less represented. Most businesses are relatively young, with 46.5% having been in operation for 1-3 years and 42.4% running for 4-6 years. Only 5.3% have operated for over six years, while 3.4% are less than a year old.

Financially, 58.1% of businesses report a net worth of under 50 million Rupiah, while 34.4% have assets ranging between 500 million and 10 billion Rupiah, reflecting a broad range of financial standings. In terms of annual sales, 58.1% generate less than 300 million Rupiah, and 34.1% report sales between 300 million and 2.5 billion Rupiah, with only 5.3% achieving higher revenue. Geographically, the largest group of respondents is based in

Bandung Regency (29%), followed by Bekasi (17%) and Bogor (13%), with smaller representations from other regions like Depok and Sukabumi. This demographic and business overview highlights the prominence of young, male-led businesses in the culinary sector, with varied financial performance and geographical distribution.

Path Analysis Equation Model

Path analysis is used to determine the pattern of relationship patterns among variables. In this study, the use of path analysis is to find out if Competitive Advantage (Y1) is a variable that can mediate the relationship between the utilization of E-Commerce (X1) and QRIS (X2) towards the MSMEs Sales Performance (Y2).

Table 1.
Regression Coefficient Result – Sub Structure I

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-1.984	.831		-2.387	.017
X1	.584	.054	.535	10.860	<,001
X2	.374	.045	.413	8.388	<,001

a. Dependent Variable: M

Table 2.
Regression Coefficient Result – Sub Structure II

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-.263	.506		-.519	.604
X1	.164	.037	.291	4.438	<,001
X2	.080	.029	.171	2.728	.007
M	.241	.030	.466	7.960	<,001

a. Dependent Variable: Y

From the output of the figure above, the path analysis equation model is as follows:

Substructure I

$M = 0{,}535X_1 + 0{,}413X_2$

Substructure II

$Y = 0.291X_1 + 0.171\ X_2 + 0.466M + \varepsilon 2$

Based on the equation model above, the visualization of the path analysis is as follows:

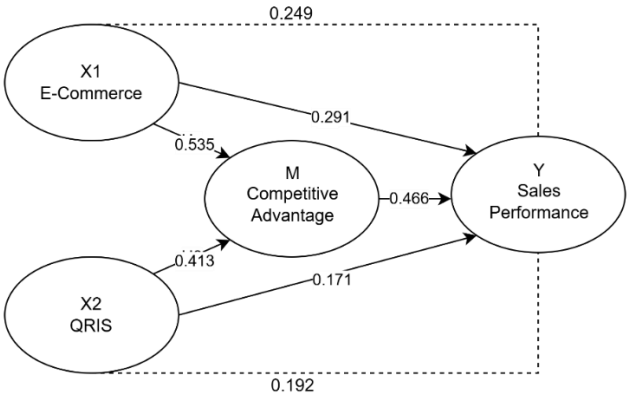

Figure 1.
Path Analysis Visualization

Partial Significance Test (T-Test)

Table 3.
T-Test Result – Sub Structure I

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.984	.831		-2.387	.017
X1	.584	.054	.535	10.860	<,001
X2	.374	.045	.413	8.388	<,001

a. Dependent Variable: M

Table 4.
T-Test Result – Sub Structure II

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.263	.506		-.519	.604
X1	.164	.037	.291	4.438	<,001
X2	.080	.029	.171	2.728	.007
M	.241	.030	.466	7.960	<,001

a. Dependent Variable: Y

From the result above, it can be interpreted as in the table below:

Table 5.
Direct Effect

Hypothesis	Relationship	Path Coefficient	T count	Sig	Conclusion
Direct Effect Sub Structure I					
H1	X1 -> Y1	0.535	10.860	< 0.001	Accepted
H2	X2-> Y1	0.413	8.388	< 0.001	Accepted
Direct Effect Sub Structure II					
H3	X1 -> Y2	0.291	4.438	< 0.001	Accepted
H4	X2 -> Y2	0.171	2.728	0.007	Accepted
H5	Y1 ->Y2	0.466	7.960	< 0.001	Accepted

The direct effect table above can be interpreted as follows:

1. The value of Sig. of E-commerce (X1) is < 0.001 which is lower than 0.05 and the value of t count of E-commerce (X1) is 10.860 which is higher than t table. Ho rejected and Ha accepted. Therefore, it can be concluded that E-commerce partially significantly influences the Competitive Advantage in West Java MSMEs. The path coefficient shows the direct effect of E-commerce on Competitive Advantage with a value of 0.535 (53.5%)
2. The value of Sig. of QRIS (X2) is < 0.001 which is lower than 0.05 and the value of t count of QRIS (X2) is 8.388 which is higher than the t table. Ho rejected and Ha accepted. Therefore, it can be concluded that QRIS partially significantly influences the Competitive Advantage in West Java MSMEs. The path coefficient shows the direct effect of QRIS on Competitive Advantage with the value of 0.413 (41.3%)
3. The value of Sig. of E-commerce (X1) is <0.001 which is lower than 0.05 and the value of t count of E-commerce (X1) is 4.438 which is higher than t table. Ho rejected and Ha accepted. Therefore, it can be concluded that E-commerce partially significantly influences the Sales Performance in West Java MSMEs. The path coefficient shows the direct effect of E-commerce on Sales Performance with a value of 0.291 (29.1%)
4. The value of Sig. of QRIS (X2) is 0.007 which is lower than 0.05 and the value of the t count of QRIS (X2) is 2.728 which is higher than the t table. Ho rejected and Ha accepted. Therefore, it can be concluded that QRIS partially significantly influences the Sales Performance in West Java MSMEs.

5. The value of Sig. of Competitive advantage (Y1) is <0.001 which is lower than 0.05 and the value of t count for Competitive Advantage (Y1) is 7.960 which is higher than the t table. Ho rejected and Ha accepted. Therefore, it can be concluded that Competitive Advantage partially significantly influences the Sales Performance in West Java MSMEs.

Simultaneous Test (F-Test)

Table 6.
The F-Test Result– Sub-Structure I
Anova[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11931.298	2	5965.649	1304.691	<,001[b]
Residual	1828.985	400	4572		
Total	13760.283	402			

a. Dependent Variable: M
b. Predictors: (Constant), X1, X2

Table 7.
The F-Test Result– Sub-Structure I
ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2996.351	3	998.784	597.969	<,001[b]
Residual	666.448	399	1.670		
Total	3662.799	402			

a. Dependent Variable: Y
b. Predictors: (Constant), M, X2, X1

The determination of the F-table value, from the distribution table in the case study of sample number being 403 and the number of independent variable being 2 is 3,018280744. The F-Test result on the Sub Structure I shows F stat value of 1304.691. As stated above, the F-stat > F-table means that Ho is rejected and Ha is accepted. Therefore, it can be concluded that QRIS and E-Commerce simultaneously influence the competitive advantage of West Java MSMEs. The Sub Structure II shows F stat value of 597.969. As stated above, the F-stat > F-table means that Ho is rejected and Ha is accepted. Therefore, it can be concluded

that QRIS, E-Commerce, and Competitive Advantage simultaneously influence the sales performance of West Java MSMEs.

Coefficient of Determination (R square)

Table 8.
R-Square Test Result – Sub Structure I
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.921[a]	.846	.848	2.26499

a. Predictors: (Constant), X2, X1
b. Dependent Variable: M

From the R-Square test result on Sub Structure I, the Adjusted R-Square value is 0.848. The Adjusted R-squared value of 0.848 indicates that 84,8% of the variance in Competitive Advantage (M) can be explained by the independent variables E-commerce (X1) and QRIS (X2), while the remaining 15.2% of the variance is attributed to factors not included in the research.

Table 9.
R-Square Test Result – Sub Structure II
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.902[a]	.814	.813	1.292475

a. Predictors: (Constant), M, X2, X1
b. Dependent Variable: Y

From the Sub Structure II, the Adjusted R Square value is 0.813. The Adjusted R-squared value of 0.814 indicates that 81.3% of the variance in Sales Performance (Y) can be explained by the variables E-commerce (X1), QRIS (X2), and Competitive Advantage (M) while the remaining 18.7% of the variance is attributed to factors not included in the research.

Table 10.
Effective and Relative Contribution

Substructure I (H6)			
Variables	**R-square**	**Effective Contribution**	**Relative Contribution**
X1 (E-Commerce)	0.848	50,232%	59,17%
X2 (QRIS)		34,573%	40,72%
Total	84,8%	84,805%	99,89%
Substructure II (H7)			
Variables	**R-square**	**Effective Contribution**	**Relative Contribution**
X1 (E-Commerce)	0.813	26,69%	32,79%
X2 (QRIS)		13,38%	16,44%
M (Competitive advantage)		41,33%	50,77%
Total	81,3%	81,4%	100%

Further analysis regarding specific contributions can be projected by the effective and relative contribution. Effective Contribution measure of the contribution of independent variables to dependent variables in regression analysis. The sum of the effective contributions of all independent variables is equal to the R Square value. The table above shows that based on its effective contribution to leveraging competitive advantage, e-commerce acts as the main determinant factor with a contribution value of 50,23% while QRIS contributes 34,57%. Together e-commerce and QRIS contribute to MSME's competitive advantage with a value of 84,8%, while the remaining 15,2% of the variance is attributed to factors not included in the research. The table also shows the combined effect of e-commerce, QRIS, and sales performance contributes 81,4% to increasing sales performance, with a competitive advantage as the leading factor (41,33%), followed by E-commerce (26,69%) and QRIS (13,38%).

Relative Contribution shows the amount of contribution of independent variables to the number of regression squares. The relative contribution amount of all independent variables is 100% or 1. The table above shows that based on its relative contribution to leveraging competitive advantage, e-commerce acts as the main determinant factor with a

contribution value of 59,17 % while QRIS contributes 40,72 %. Furthermore, based on its contribution to increasing sales performance, competitive advantage acts as the leading factor (50,77%), followed by E-commerce (32,79%) and QRIS (16,44%).

Sobel Test

The Sobel test is carried out by testing the strength of the influence of indirect X1 (E-Commerce) and X2 (QRIS) to Y (Sales Performance) through the mediation variable (Competitive Advantage). According to Preacher & Hayes (2007), the Sobel test is declared significant if the z-value > 1.96 or the p-value < 0.05.

Table 11.
Sobel Test Result (Indirect Effect)

Hypothesis	Relationship	Path Coefficient	*Z*-score	p-value	Conclusion
Sobel Test (Indirect Effects)					
H6	X1->Y1->Y2	0.249	6.44885994	0.000	Significant
H7	X2 ->Y1-> Y2	0.171	5.77613054	0.000	Significant

Respondent Characteristics

The survey included 403 respondents, with 60.8% (245) males and 39.2% (158) females, indicating a higher male participation. The majority of respondents (55.8%) are aged 17-30 years, followed by 29.3% aged 31-40 years, and 14.9% over 45 years old, showing a younger demographic. In terms of education, 49.9% (201) completed high school (SMA/SMK), 29.5% (119) hold a bachelor's degree (S1), 16.1% (65) finished junior high school (SMP), and 4.5% (18) have other educational backgrounds. The majority of respondents are in the culinary sector (49.4%), with 204 businesses, followed by the fashion sector (28.1%) with 116 businesses. Other sectors include handicrafts and souvenirs (7.3%), garment industry (6.5%), and services (6.3%).

Regarding business age, 46.5% (192) have been operating for 1-3 years, 42.4% (175) for 4-6 years, 5.3% (22) for over 6 years, and 3.4% (14) for less than a year. Financially, 58.1% (240) of respondents have a net worth under 50 million Rupiah, 34.4% (142) between 500 million to 10 billion Rupiah, and 5.1% (21) between 50 to 500 million Rupiah. In terms of annual sales, 58.1% (240) earn less than 300 million Rupiah, 34.1% (141) earn 300 million

to 2.5 billion Rupiah, and 5.3% (22) earn 2.5 billion to 50 billion Rupiah. Geographically, the largest group of respondents (29%) are based in Bandung Regency, followed by Bekasi Regency (17%) and Bogor Regency (13%). Other notable locations include Kota Depok (9%), Sukabumi Regency, and Indramayu Regency (each 2.4%).

The usage of E-Commerce towards Competitive Advantage

H0: E-commerce does not have a significant influence on the competitive advantage of MSMEs

H1: The usage of e-commerce has a significant influence on the competitive advantage of MSMEs

Hypothesis testing was conducted by comparing the t table with the t count or sig value with the significance level. The significance level in this study is 0.05 and the t-table value is 1.96. From the table of the hypothesis test above, the value of Significance of E-commerce (X1) is < 0.001 which is lower than 0.05 and the value of t count of E-commerce (X1) is 10.860 which is higher than the t table.

Additionally, the path analysis shows that the usage of E-commerce positively and significantly affects the competitive advantage by the value of 0.535. This indicates that for every one-unit increase in e-commerce usage, competitive advantage increases by 0.535 units on average, holding all other variables constant. Based on these results, it can be concluded that H0 is rejected and H1 is accepted. This indicates that E-commerce has a significant and direct effect on Competitive advantage. Therefore, MSMEs in West Java increase their competitive advantage through the utilization of E-commerce.

The Usage of QRIS Towards Competitive Advantage

H0: The usage of QRIS does not have a significant influence on the competitive advantage of MSMEs

H2: The usage of QRIS has a significant influence on the competitive advantage of MSMEs

The second hypothesis testing was determined by comparing the t table with the t count or sig value with the significance level. The significance level in this study is 0.05 and the t-table value is 1.96. From the table of the hypothesis above, the value of Sig. of QRIS (X2) is < 0.001 which is lower than 0.05 and the value of t count of QRIS (X2) is 8.388 which is higher than the t table.

Additionally, the path analysis has shown that the usage of QRIS positively and significantly influences the competitive advantage by the value of 0.413. This indicates that for every one-unit increase in QRIS usage, competitive advantage increases by 0.413 units on average, holding all other variables constant. Based on these results, it can be concluded that H0 is rejected and H2 is accepted. This indicates that E-commerce has been shown to significantly and directly affect sales performance. Therefore, utilizing QRIS can improve competitive advantage in West Java MSMEs

The Usage of E-Commerce towards Sales Performance

H0: The usage of E-commerce does not have a significant influence on the sales performance of MSMEs

H3: The usage of E-commerce has a significant influence on the sales performance of MSMEs

The fourth hypothesis testing was determined by comparing the t table with the t count or sig value with the significance level. The significance level in this study is 0.05 and the t-table value is 1.96. From the table of the hypothesis above, it can be seen that the value of Sig. of E-commerce (X1) is < 0.001 which is lower than 0.05 and the value of t count of E-commerce (X1) is 4.438 which is higher than t table.

Additionally, the path analysis shows that the usage of E-commerce positively and significantly affects sales performance directly by the value of 0.291. This indicates that for every one-unit increase in e-commerce usage, competitive advantage increases by 0.291 units on average, holding all other variables constant.

Based on these results, it can be concluded that H0 is rejected and H3 is accepted. This means that E-commerce has been shown to significantly and directly affect sales performance. Therefore, utilizing E-commerce can improve sales performance in West Java MSMEs.

The Usage of QRIS towards Sales Performance

H0: The usage of QRIS has a significant influence on the sales performance of MSMEs

H4: The usage of QRIS has a significant influence on the sales performance of MSMEs

The fourth hypothesis testing was determined by comparing the t table with the t count or sig value with the significance level. The value of Sig. of QRIS (X2) is 0.007 which is

lower than 0.05 and the value of the t count of QRIS (X2) is 2.728 which is higher than the t table. Ho rejected and Ha accepted. Additionally, the path analysis has shown that the usage of E-commerce positively and significantly affects sales performance by the value of 0.171. This indicates that for every one-unit increase in e-commerce usage, competitive advantage increases by 0.171 units on average, holding all other variables constant.

Based on these results, it can be concluded that H0 is rejected and H4 is accepted. This indicates that the usage of QRIS has been shown to significantly and directly affect sales performance. Therefore, utilizing QRIS can improve sales performance in West Java MSMEs.

The Usage of Competitive Advantage toward Sales Performance

H0: The usage of competitive advantage does not have a significant influence on the Sales Performance of West Java MSMEs

H5: The usage of competitive advantage has a significant influence on the Sales Performance of West Java MSMEs

The sixth hypothesis testing was determined by comparing the t table with the t count or sig value with the significance level. The value of Sig. of Competitive advantage (M) is < 0.001 which is lower than 0.05 and the value of t count for Competitive Advantage (M) is 7.960 which is higher than the t table. Additionally, the path analysis has shown that competitive advantage positively and significantly affects sales performance by the value of 0.466. This indicates that for every one-unit increase in e-commerce usage, competitive advantage increases by 0.466 units on average, holding all other variables constant.

Based on these results, it can be concluded that H0 is rejected and H5 is accepted. This indicates that competitive advantage has been shown to significantly and directly affect sales performance. This means that the higher the competitive advantage, the better the sales performance in West Java MSMEs will be.

The Usage of E-Commerce Towards Sales Performance through Competitive Advantage

H0: The usage of E-commerce has a significant influence on sales performance through competitive advantage

H6: The usage of E-commerce does not have a significant influence on sales performance through competitive advantage

From the path analysis, the indirect effect of e-commerce on sales performance is positive and significant, with a path coefficient of 0.249. The direct influence of E-commerce on sales performance where competitive advantage is present in the model (influence c1') is significant which indicates in this study partial mediation occurs, based on Baron & Kenny's approach. The type of partial mediation in this study is complementary since the path coefficient is positive (Hair et al., 2021).

Moreover, the Sobel test confirms the significance of the indirect effect. The t-value (z-score) is 6.448, with a significance level (sig) of 0.000. At a 5% significance level, the t-table value is 1.96. Since the t-value of 6.448 is higher than the t-table and the p-value (0.000) is less than 0.05, it indicates a strong statistical significance, suggesting that the indirect effect of e-commerce on sales performance through competitive advantage is significant. The Sobel test result provides strong evidence to support the alternative hypothesis (H6). Therefore, H0 is rejected and H6 is accepted.

The Usage of QRIS Towards Sales Performance Through Competitive Advantage

H0: The usage of QRIS does not have a significant influence on the sales performance of MSMEs through competitive advantage

H7: The usage of QRIS has a significant influence on the sales performance of MSMEs through competitive advantage

From the path analysis, the direct effect of QRIS on sales performance is positive and significant, with a path coefficient of 0.171. This indicates that for every one-unit increase in e-commerce usage, sales performance increases by 0.171 units on average, holding all other variables constant. Additionally, the path analysis shows the indirect effect of e-commerce on sales performance mediated by competitive advantage with the value of 0.192 from the calculation 0.413 x 0.466 = 0.192, where 0.413 is the path coefficient from QRIS to competitive advantage and 0.466 is the path coefficient from competitive advantage to sales performance.

The path analysis reveals an indirect influence of QRIS on sales performance mediated by competitive advantage to be higher than the direct impact. This means QRIS

usage doesn't directly impact sales as much but rather influences sales performance indirectly through its effect on competitive advantage. The direct influence of QRIS on sales performance where competitive advantage is present in the model (influence c2') is significant indicating that in this study, partial mediation occurs. The type of partial mediation in this study is complementary since the path coefficient is positive (Hair et al., 2021).

The Sobel test confirms the significance of the indirect effect. The Sobel test yielded a high t-value of 5.776 with a significance level of 0.000, which is well above the critical value of 1.96 at a 5% significance level. This indicates strong statistical significance, suggesting that the indirect effect of QRIS on sales performance through competitive advantage is significant. The Sobel test result provides strong evidence to support the alternative hypothesis (H7). This means there is a statistically significant indirect effect of QRIS on sales performance mediated by competitive advantage. In other words, the utilization of QRIS likely influences MSMEs' competitive advantage, which in turn, leads to improved sales performance. Therefore, H0 is rejected and H7 is accepted.

CONCLUSION

Based on the research results, analysis, data gathering, and processing regarding “The Utilization of E-Commerce and QRIS as Digital Payment Tools to Improve Sales Performance Through Competitive Advantage in West Java MSMEs” on the previous chapters, therefore in this chapter, the writer will point out the conclusion of the research that has been done and answer research questions which were stated on the previous chapter into the following:

1. The usage of e-commerce positively and significantly affects the competitive advantage of MSME with a direct impact value of 0.535 (53.5%) direct effect out of the overall total effect. This implies that a higher level of E-commerce utilization directly contributes to enhancing the competitive advantage of the business.
2. The usage of QRIS positively and significantly affects the competitive advantage of MSME with a direct impact value of 0.413 (41.3%). This implies that a higher level of

QRIS utilization directly contributes to enhancing the competitive advantage of the MSMEs.

3. The usage of e-commerce positively and significantly affects the performance of MSME sales with a direct impact value of 0.291 (29.1%) direct effect out of the overall total effect. This implies that a higher level of E-commerce utilization directly contributes to enhancing the sales performance of the MSMEs.
4. The usage of QRIS positively and significantly affects the sales performance of MSMEs with a direct impact value of 0.171 (17.1%) direct effect out of the overall total effect. This implies that a higher level of QRIS utilization directly contributes to enhancing the sales performance of the MSMEs.
5. Competitive advantage directly affects the sales performance of MSMEs with a direct impact value of 0.466 (46.6%). This implies that a higher level of competitive advantage in the MSMEs will directly contribute to enhancing the sales performance of the MSMEs.
6. The usage of e-commerce positively and significantly affects sales performance through competitive advantage with an indirect impact value of 0.249 (24.9%). Since the direct relationship between E-commerce usage and sales performance mediated by competitive advantage is stronger than the indirect relationship, this suggests that while competitive advantage plays a significant role in enhancing the impact of E-commerce on sales performance, there is also a substantial direct effect of E-commerce on sales performance that is not fully mediated by competitive advantage. Therefore, the utilization of E-commerce directly contributes to improving sales performance, with competitive advantage acting as a complementary factor in enhancing this relationship. In this study, the mediation model that occurs is partial mediation. The type of partial mediation in this study is complementary since the path coefficient is positive (Hair et al., 2021)
7. The usage of QRIS positively and significantly affects sales performance through competitive advantage with an indirect impact value of 0.192 (19.2%). This indirect impact implies that a portion of the relationship between QRIS usage and sales performance is mediated by the competitive advantage gained through effective QRIS utilization. The value of the indirect influence of QRIS mediated by competitive advantage is higher than the direct impact indicating that QRIS usage doesn't directly

impact sales performance as much, but rather influences sales performance indirectly through its effect on the competitive advantage. Therefore, the competitive advantage plays a crucial role as a mediator in the relationship between E-commerce usage and sales performance, enhancing the overall impact of QRIS on sales performance. In this study, the mediation model that occurs is partial mediation. The type of partial mediation in this study is complementary since the path coefficient is positive (Hair et al., 2021).

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