

# E-Commerce Use and Financial Performance: Exploring The Moderating Role of Entrepreneurial Competencies in Palestine Stock Exchange Companies

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## Abstract:

The study aims to identify the role of e-commerce use through the efficiency of entrepreneurial competencies in directing the financial performance of companies listed on the Palestine Stock Exchange via financial performance indicators connected to e-commerce: sales value, and company value. The data for the study sample is gathered from the financial reports of all 49 companies listed on the Palestine Stock Exchange for the four sectors (commercial, service, industrial, and investment) over the 11 years of the study period, 2010 to 2020, resulting in a hypothetical sample size of 528 observations (11 years x 49 companies). A quantitative descriptive-analytical approach was employed, and the data was analyzed using SPSS and Stata software. The outcomes of the study have revealed a positive and significant relationship between the employment of electronic commerce and the financial performance of businesses. In addition, it has been observed that Entrepreneurial competencies play a significant moderating role in the relationship between the use of e-commerce and the financial performance (sales value, company value) of companies listed on the Palestine Exchange.

This is the first study to investigate Entrepreneurial competencies as a moderator between e-commerce utilization and business financial performance, based on previous knowledge in the field.

The empirical findings of this study give managers and practitioners useful theoretical and practical insights for understanding the relationship between the deployment of e-commerce across all industries in hopes of enhancing company results.

**Keywords:** E-commerce Use; Entrepreneurial competencies; Companies listed on the Palestine Stock Exchange; Financial Performance.

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## 1. Introduction

In the last decade, the global e-commerce movement has witnessed massive progress at outstanding rates, in addition to the irreversible global impacts of the pandemic COVID-2019, which altered the shopping habits of the entire planet and business strategy within the last two years (Memarista et al., 2023; Purba et al., 2021). The issue of e-commerce is one of the most important topics of the current era, known as the era of the information revolution, because it includes the implementation and management of commercial activities related to e-commerce and services by transferring data via the Internet or technical systems (Samaeen & Al-Sabti, 2018), and thus provides opportunities for advertising, marketing, selling, earning, and obtaining the information necessary to develop the business (Ibrahim, 2020). Similarly, the breadth of e-commerce in Palestine has grown significantly recently in tandem with the world's tremendous technological progress and the Internet revolution. According to the Digital 2023 report, 5.16 billion people worldwide are nowadays linked to the Internet, accounting for 64.4% of the global population (Digital Global Overview Report, 2023). In Palestine, census data for 2022 reveals that 91.9% of families have access to the Internet. Furthermore, according to survey results, 61.1% of Palestinian commercial companies use the internet for various business purposes (Palestinian Central Bureau of Statistics Report, 2022).

Companies use new technology to expand their products and operations into new markets in response to increased competitive pressure. Companies can effectively and affordably increase their consumer bases, improve their internal processes, and coordinate their value chains when using ICTs, such as using the internet (Kraemer & Gibbs, 2005).

Previous studies have encountered a link between a company's level of digitalization and its market performance (Ionaşcu et al., 2022). Simultaneously, companies that have adopted digital processes can increase their revenue through online commerce and decrease costs by utilizing innovative business models, removing manual operations, and streamlining resources. Indicators used to evaluate a company's market performance consider the expectations of financial analysts and investors in the capital market regarding a company's future performances as reflected in their share prices (Haslam et al., 2010).

Electronic commerce, commonly known as e-commerce, offers companies and consumers several new methods to interact, collaborate, and purchase and sell goods and services. Through various internet sales channels (websites, online marketplaces, search engines, etc.), e-commerce enables market participants to compare, choose, and purchase items and services in a secure environment. Typically, companies begin their web presence by offering information about their business and consumer-oriented products/services to complement their other sales channels (Jovanovic et al., 2020).

The use of e-commerce has changed the way companies do business by providing new opportunities to reach a broader audience and increase sales. Yet, it is unclear if e-commerce usage has a beneficial or unfavorable impact on the company's financial performance (Purba et al., 2021). Even so, the relationship between e-commerce use and company financial success is crucial for companies, as it can shed light on the potential advantages and disadvantages of implementing usage of e-commerce tactics (Ionaşcu et al., 2022). Some studies have identified a positive relationship between e-commerce use and a company's financial success (Nguyen et al., 2021), while others have found no meaningful association (Purba et al., 2021).

According to some researchers, Entrepreneurial competencies, as demonstrated by entrepre-

neur traits, is considered the most significant factor in determining long-term company performance, while the competence approach has gained popularity as a method for analyzing Entrepreneurial competencies (Man et al., 2008). Particular entrepreneurial traits, such as innovation, market orientation, and risk-taking, may mitigate the financial impact of e-commerce. It has been shown that entrepreneurial skills significantly affect a company's financial performance (Covin & Slevin, 1991), and it is conceivable that they may also be involved in the relationship between e-commerce use and company financial performance. Few studies have examined the moderating impact of Entrepreneurial competencies in this context (Hussain et al., 2022), As a result, additional research is needed to investigate this relationship.

Concerning the preceding debate, the research offers contradictory findings concerning the effect of e-commerce usage on company financial performance (Jovanovic et al., 2020). In this context, the first aim of this study is to contribute to the literature on e-commerce use and financial performance. The second goal is to fill a research gap by examining the potential moderating effect of Entrepreneurial competencies on the link between e-commerce usage and a company's financial success for companies listed on the Palestine Stock Exchange, considering their distinguished contribution to Palestinian economic growth and national development.

This study is divided further into four parts. Section 2 examines compelling literature as well as the evolution of the theoretical framework. Section 3 delves into the methods used to conduct the study, including its elements and composition. Section 4 explains the analysis and findings for the identified hypotheses. Finally, Section 5 summarizes the current research and discusses the limitations of the paper.

## **2. Literature Review and Hypotheses**

### **2.1. E-commerce Use and Company's Financial Performance**

In the age of digitization, technical innovation is a critical component of competing successfully. Similarly, the global adoption of technologies such as e-commerce is altering how companies run (Hussain et al., 2022). As a result, in today's digital age, company processes are becoming more efficient and competitive. A substantial body of literature demonstrates how e-commerce helps businesses thrive financially by streamlining their operations (Wardoyo et al., 2018). A literature review demonstrates that the range of products sold on the market is the initial capital for opportunities to capture a substantial market share (Purba et al., 2021). Numerous studies have explored the topic of company representation in e-commerce, as well as the impact of e-commerce on overall company performance (Shahzad et al., 2020). In fact, e-commerce offers various advantages for users, businesses, and all of society. E-commerce, as previously stated, provides opportunities for traditional retailers to increase their market share and improve their operational efficiency. Companies that employ online sales platforms outperform their competitors' overall performance and sales (Jovanovic et al., 2020). Therefore, the current study proposes the following hypothesis:

**H01:** E-Commerce Use has no significant influence on the company's financial performance.

### **2.2. Entrepreneurial Competencies Relationship with the Company Financial Performance**

Man, Lau, and Chan (2002) classify six primary areas of entrepreneurial abilities in the context of Entrepreneurial competencies, including opportunity, relational, conceptual, organizational, strategic, and commitment competencies. Direct and indirect effects are anticipated to play various roles in determining a company's performance (Man et al., 2008). Similarly, consistent with the previous study, several researchers have concluded that entrepreneurial competencies

is closely related to business performance and results in more entrepreneurial performance (Hussain et al., 2022; Hashim et al., 2018). Therefore, the current research proposes the following hypothesis:

**H02:** Entrepreneurial competencies have no significant influence on a company's financial performance.

### 2.3. Entrepreneurial Competencies as a Moderator between the Use of E-Commerce and Companies' Financial Performance

Economic development has played a primary role in increasing interest in one of the significant domains, Entrepreneurial competencies, due to its superior ability to innovate, create, and develop e-commerce methods, which makes it one of the best and easiest ways to achieve economic recovery (Nasr al-Din et al., 2022). Entrepreneurial competencies are considered one of the most significant creative and innovative methods that have an influential role in raising the levels of e-commerce procedures, which increases the revenues resulting from corporate activity, including its role in rebalancing the markets by establishing new innovative companies whose impact extends to existing companies to enhance their competitive capabilities (Toh, 2021).

This necessitates linking financial performance to e-commerce, which relies on Entrepreneurial competencies to guarantee company owners more returns with less effort. With the rapid development of economic life and the growing global challenges confronting business companies today, such as confrontation, competition, information technology systems, and the emergence of management with its advanced concepts and methods, the importance of what is desired is growing efficiently (Farahane & Heshmati, 2020). Among the most significant management changes is the focus on financial performance in institutions and the attempt to find documented methodologies to measure it. In these circumstances, the development and improvement of performance in institutions have become an urgent matter requiring them to find powerful and advanced control and administrative systems to maintain their existence and the survival and continuity in an environment marked by extreme risk. In this context, electronic commerce appears to be an urgent and significant need to take advantage of in supplying various parties, whether internal or external.

Previous research has revealed that strategic organizational characteristics such as Entrepreneurial competencies affect business performance. The RBV theory provides theoretical support for entrepreneurial abilities as capacities to achieve a competitive advantage and improve business performance (Kabir et al., 2017). Furthermore, evidence indicates that e-commerce affects three distinctive performance dimensions: increased sales, efficiency, productivity, and coordination (Hussain et al., 2022). Therefore, the current study proposes the following hypothesis:

**H03:** Entrepreneurial competencies have no significant influence on the relationship between the use of e-commerce and the company's financial performance.

## 3. Theoretical Framework and Research Model

### 3.1. Theoretical Framework

The theoretical framework of this study is based on the basic ideas of Barney's Resource Base View (RBV) theory, which he presented in 1991 to describe the companies' strategy and success. The RBV considers its internal organizational resources (assets, capabilities, processes, management qualities, information, and knowledge) (Gregory et al., 2019). The theory stresses the importance of a company's resources and capabilities in determining its competitive advan-



## 4. Methodology

### 4.1. Sample Description

The study sample comprises all 49 companies listed on the Palestine Stock Exchange within the four main sectors (commercial, service, industrial, and investment), to which the following conditions apply:

- 1- Listed on the Palestine Stock Exchange during 2010–2020.
- 2- Available consistent financial statements published on the Palestine Stock Exchange website during 2010–2020.
- 3- Its shares were traded between 2010 and 2020.

The default sample size is 539 views (11 years 49× companies), 11 views were excluded due to lack of data, leaving 528 annual statements in the final sample.

### 4.1. Data Collection

Data for the study sample were drawn from the financial reports of companies listed on the Palestine Exchange for all sectors (commercial, services, industrial, and investment) from 2010 to 2020, as shown in Table 1. The financial records are obtained from the Palestine Stock Exchange's website (<https://web.pex.ps>). Scientific articles and periodicals relevant to the subject of the present study are also analyzed.

**Table 1**  
**Distribution of companies listed on the Palestine Exchange**

Section	Sample	Percentage
Investment	11	22.4%
Banks	8	16.3%
Insurance	8	16.3%
Industry	13	26.6%
Services	9	18.4%
Total	49	100%

Source: Palestine Stock Exchange website, 2022

### 4.2. Study Methodology:

To achieve the study's objectives, the quantitative analytical descriptive approach given the subject matter and the data obtained. The study aims to examine the relationship between the variables of the role of electronic commerce use through Entrepreneurial competencies in controlling the financial performance of companies listed on the Palestine Stock Exchange. Because the study variables represent quantitative data received from the financial statements of the companies listed on the Palestine Exchange under investigation, the Stata program was used to analyze the data. In the statistical analysis, the researchers relied on the quantitative approach.

## 5. Measurement Variables

This section demonstrates how to measure the study variables, which include the dependent variable (financial performance, sales value, company value), the independent variable (e-commerce use), and the intermediate variable (entrepreneurial competencies). A brief explanation of how to measure it follows.

**5.1. Measurement of the dependent variable:** The dependent variable, represented by sales value, can be measured by the financial statements of the study sample companies, particularly the income statement. In terms of the company's worth, it can be determined by the formula:

The number of shares × the value of one share = the total market of the company value.

**5.2. Measurement of the independent variable:** E-commerce can be measured using electronic readiness indicators and research and development expenses reported in the income statement summary.

**5.3. Measuring the intermediate variable:** Entrepreneurial competencies is measured through the Return on Marketing Investment (ROMI) related to the return on assets, the sales value divided by total assets.

The following table summarizes the measurement of the study variables used in the study model formula:

**Table 2**  
**Summary of Study Variables Measurement**

Variable	Measurement	Reference
Sales value	Financial statements, particularly the companies' corporate income statement	(Hussain et al., 2022) (Kraemer & Gibbs, 2005) (Jovanovic et al., 2020)
Company Value	the value of × The number of shares one share = the company value	(Purba et al., 2021) (Shahzad et al., 2020)
E-Commerce Use	Financial statements: indicators of e-readiness, as well as expenditures for research and development	(Hussain et al., 2022) (Kraemer & Gibbs, 2005)
Entrepreneurial competencies	Return on Marketing Investment (ROMI) = Sales Value / Total Assets	(Hussain et al., 2022) (Man et al., 2008) (Paudel, 2019)

Source: prepared by the researchers

## 6. Study Equivalence Form

The study model displays all study variables under analysis, and the multiple regression model is used to examine the relationship between the study variables, which is a formula that shows the extent of the influence of a group of variables on the dependent variable, and the following algorithm can be used:

$$Y_{1t} = B_0 + B_1 X_{1it} + B_2 X_{2it} + e_{it}$$

$$Y_{2t} = B_0 + B_1 X_{1it} + B_2 X_{2it} + e_{it}$$

Whereas:

**Y1t** is the dependent variable that represents the sales value.

**Y2t** is the dependent variable that represents the company value.

**X1it** is the independent variable that represents e-commerce Use.

**X2it** is the intermediate variable representing entrepreneurial competencies.

**eit** is the range of random error caused by not including the remaining factors influencing **Yit** is the model formula.

**B0** is a constant regression coefficient that represents the dependent variable value when the independent variables are not affected.

**B1** is the variable's regression coefficient and represents the degree to which the **X1it** variable influences the dependent variable **Yit**.

**B2** is the variable's regression coefficient and shows the effect of the variable **X2it** on the dependent variable **Yit**.

## 7. Descriptive Statistics Measurements

The following statistical measures will be used by the Stata program to carry out the statistical description of the research variables:

- 1- Arithmetic Mean and Standard Deviation.
- 2- The Highest Value and the Lowest Value.
- 3- Normal Distribution Tests.
- 4- Analysis of Time Series Properties
- 5- Multiple Regression Analysis
- 6- Multiple Correlations Test.

### 7.1. The Statistical Description of the Study Variables' Findings

Table 3 statistically describes the variables in the study. One notes that the number of annual observations of the dependent variable ( $y_1, y_2$ ) represented by financial performance as assessed by sales and firm valuation was 528 out of 539. This indicates that the sample companies accurately measure their financial performance through their sales and company value in their financial statements. The arithmetic mean of the sales value as an indicator of financial performance is equal to 3.19, where the positive number indicates that the sales value achieved from e-commerce is high, which raises the level of its financial performance. The high percentage reflects the high sales achieved by companies based on e-commerce, and the standard deviation value is 8.87, indicating the extent of variation in the e-commerce sales value for the sample companies.



**Table 3**

**Results of the Statistical Description of the Study Variables**

<b>Vari-ables</b>	<b>Number of Observations</b>	<b>Standard Deviation</b>	<b>Arithmetic Mean</b>	<b>Lowest Value</b>	<b>Highest Value</b>
Y1	528	8.87	3.19	16434	955055
Y2	528	6.59	2.11	551261	635363
X1	528	3.61	9.30	872	327577
X2	528	7.68	1.88	607	768881

\*Variable (y1) is the dependent variable that represents financial performance as measured by sales value; variable (y2) is the dependent variable that represents financial performance as measured by company value; variable (X1) is the independent variable that represents e-commerce; and variable (X2) is the intermediate variable that represents entrepreneurial competencies.

The arithmetic mean of the company value as an indicator of financial performance is (2.11), where the positive number indicates that the company value is high, which raises the level of its financial performance, as the high of this ratio is evidence of the company value that achieves high returns, and that the standard deviation value is (6.59), which indicates the extent of the discrepancy in the value of companies that deal in e-commerce for the sample companies.

Concerning the independent variable (X1), which represents e-commerce use, it should be noted that the number of observations obtained is 528 out of 539 annual views. It implies that companies deal with e-commerce methods and expand them for the convenience of the procedures and transactions they entail. According to the table, the average e-commerce operations in the companies listed on the Palestine Exchange are 9.30, indicating an increase in the companies' tendency to deal with e-commerce and its methods. The standard deviation is 3.61, showing the extent of variation in e-commerce business among the sample companies, while the lowest value of e-commerce is 8.72, representing the Arab Hotels Corporation's share; this indicates a decrease in e-commerce in the year 2020 compared to other years due to the conditions related to the spread of Corona and the resulting economic effects. The Palestinian Company for Investment and Development has the highest e-commerce limit of 327,577, indicating a high rate of sales through e-commerce and the efficacy of e-commerce in marketing sales.

The number of observations found for the intermediate variable (X2), which reflects Entrepreneurial competencies, is 528 annual observations out of 528. According to the table, the average entrepreneurial competencies is 1.88, indicating that the sample companies have high entrepreneurial competencies. It implies that the companies listed on the Palestine Exchange rely heavily on entrepreneurial competencies in developing e-commerce means and methods. The standard deviation is 7.68, indicating the extent of variation in entrepreneurial competencies among the sample companies, while the minimum audit quality is 607, which is the share of Beit Jala Company, whose reliance on entrepreneurial competencies decreased in 2020 while reaching its maximum limit of 768,881; it is the share of Ooredoo, which shows its high entrepreneurial competencies.

**7.1. Normal Distribution Test**

It is evident from Table 4 that the skewness test values for all independent variables, the dependent variable, and the median are below 3, indicating a normal data distribution without any significant outliers. Similarly, the results of the kurtosis test, which are below 7, further confirm the absence of outliers (West et al., 1995). These findings suggest that the variables adhere to a normal distribution.

**Table 4**  
**Data Normal Distribution Findings.**

Variables	Number of Observations	kurtosis	Skewness
Y1	528	1.687	2.939
Y2	528	4.253	3.252
X1	528	2.450	0.618
X2	528	1.661	0.813

\*Variable (y1) is the dependent variable that represents financial performance as measured by sales value; variable (y2) is the dependent variable that represents financial performance as measured by company value; variable (X1) is the independent variable that represents e-commerce; and variable (X2) is the intermediate variable that represents entrepreneurial competencies.

The Doornik-Hansen test is used to guarantee that the data has a normal distribution, and the results are as follows in Table 5:

**Table 5**  
**Results of the Normal Distribution Test (Doornik-Hansen)**

Variables	Number of Observations	Factor	Standard Deviation	T-test	Probability Value
Y1	528	-1.355	0.583	-2.32	0.022
Y2	528	44.362	5.785	-2.45	0.029
X1	528	28.931	6.947	4.16	0.000
X2	528	90.131	8.478	10.63	0.000

\*Variable (y1) is the dependent variable that represents financial performance as measured by sales value; variable (y2) is the dependent variable that represents financial performance as measured by company value; variable (X1) is the independent variable that represents e-commerce; and variable (X2) is the intermediate variable that represents entrepreneurial competencies.

Chi (2) = 0.825

Table 5 shows that the Doornik-Hansen test value is 82.5%, deemed acceptable because it is greater than 5% and indicates no problems with the data's normal distribution.

Pearson's Correlation Matrix for the Relationship among the Study's Variables.

The following table shows the Pearson correlation matrix for the relationship between all the independent, dependent, and mediator variables.

## 7.2. Analysis of Time Series Properties

Before delving into the hypothesis testing results, it was imperative to examine the time series properties of the data to ensure the validity of the statistical analysis. To this end, the Augmented Dickey-Fuller (ADF) test was applied to assess the stationarity of the key variables involved in our study, including sales value, company value (representing financial performance), e-commerce use, and entrepreneurial competencies. The ADF test, a critical tool for verifying the stationarity of a time series, helps to ascertain that the statistical properties of the series—mean, variance, and autocorrelation—do not vary over time, thereby allowing for more accurate and reliable regression analysis (Dickey & Fuller, 1979).

**Table 6**  
**Augmented Dickey-Fuller (ADF) Test Results**

Variables	ADF Statistic	p-value	Conclusion
Sales Value	-5.137	0.0000118	Stationary
Company Value	-5.048	0.0000178	Stationary
E-Commerce Use	-5.774	0.000000531	Stationary
Entrepreneurial Competencies	-5.417	0.00000312	Stationary

\* These results suggest that all variables (Sales value, Company Value, E-Commerce Use, Entrepreneurial competencies) are stationary across the dataset.

The results of the ADF test confirmed that all variables under consideration were stationary, with p-values significantly below the 0.05 threshold, indicating that they do not contain a unit root and thus, their statistical properties remain constant over time. This finding underpins the reliability of the subsequent regression analysis used to test the hypotheses of this study, ensuring that the impact of e-commerce use and entrepreneurial competencies on financial performance is not confounded by non-stationarity in the time series data.

To strengthen the reliability of our time series analysis we further utilized the Serial Correlation LM (Lagrange Multiplier) test and the Heteroskedasticity test. The Serial Correlation LM test, created by Breusch and Godfrey, is an essential tool for identifying autocorrelation in the residuals of a regression model. The existence of autocorrelation can compromise the dependability of standard statistical inferences drawn from the model (Breusch, 1978; Godfrey, 1978). This test is particularly critical for time series data, as observations are frequently not independent. The Heteroskedasticity test, such as the Breusch-Pagan or White test, is used to evaluate the consistency of variation in the errors of the model (Breusch & Pagan, 1979; White, 1980). Heteroskedasticity, which refers to the existence of varying amounts of variation, can result in less accurate estimations and impact hypothesis testing by producing deceptive levels of significance. Collectively, these tests offer a thorough assessment of the assumptions that underlie regression analysis, guaranteeing that the inferences made from the model are both sound and dependable. Their application is crucial for improving our analysis and enhancing the reliability of our conclusions, therefore providing a more detailed grasp of the dynamics inside our dataset.

**Table 7**  
**Serial Correlation LM Test Results**

Variables	LM Statistic	p-value	Conclusion
Sales Value	392.17	0.0001 >	Serial correlation present
Company Value	392.84	0.0001 >	Serial correlation present
E-Commerce Use	373.62	0.0001 >	Serial correlation present
Entrepreneurial Competencies	398.06	0.0001 >	Serial correlation present

The p-values for all variables are less than 0.05, indicating strong evidence of serial correlation in the residuals of the models for each variable.

**Table 8**  
**Heteroskedasticity Test Results**

Variables	LM Statistic	p-value	F-statistic	F-p-value	Conclusion
Sales Value	3.57	0.0589	3.58	0.0591	Weak evidence of heteroskedasticity
Company Value	3.37	0.0665	3.38	0.0667	Weak evidence of heteroskedasticity
E-Commerce Use	0.0147	0.9035	0.0146	0.9037	No heteroskedasticity
Entrepreneurial Competencies	0.1038	0.7474	0.1034	0.7479	No heteroskedasticity

In the statistical analysis of Sales Value and Company Value, the results present weak evidence for constant variance, with p-values slightly exceeding the standard threshold of 0.05. This indicates that, although there is some evidence for homoscedasticity (constant variance), it is not conclusive and requires careful interpretation. On the other hand, regarding E-Commerce Use and Entrepreneurial Competencies, the results indicate the absence of variance change, with significantly higher p-values, affirming the constancy of variance in these datasets.

#### 1.4. Regression Analysis

It is clear from the following table that there is a strong positive and direct relationship between the financial performance value as measured by the sales value and the financial performance as measured by the company value in the companies listed on the Palestine Exchange. That is, the higher the sales value, the higher the company's value, while there is a strong and significant positive correlation between the financial performance of the companies listed on the Palestine Exchange as measured by the division of sales and e-commerce. Thus, the greater the sales value, the greater the reliance on e-commerce in the companies listed on the Palestine Stock Exchange for a long time. There is a strong correlation between the financial performance measured by the sales value and entrepreneurial competencies in the companies listed on the Palestine Exchange. In conclusion, the higher the sales value, the more companies rely on the pioneering efficiency of e-commerce operations, particularly in the case of long-listed companies on the Palestine Stock Exchange.

**Table 9**  
**Results of the Regression Analysis among the Study Variables**

Variables	Number of Observations	Y1	Y2	Y3	Y4
Y1	528	1			
Y2	528	0.2289*	1		
X1	528	0.1728*	0.9854*	1	
X2	528	0.9748*	0.0765	0.0285	1

\*Variable (y1) is the dependent variable that represents financial performance as measured by sales value; variable (y2) is the dependent variable that represents financial performance as measured by company value; variable (X1) is the independent variable that represents e-commerce; and variable (X2) is the intermediate variable that represents entrepreneurial competencies.

There is a strong correlation between financial performance as measured by company value and e-commerce in the companies listed on the Palestine Exchange, meaning that the higher the company value, the more the companies rely on e-commerce use for a long time. There is a strong correlation between the financial performance as measured by the company's value and the entrepreneurial competencies of the companies listed on the Palestine Stock Exchange, meaning that the higher the company's value, the more the companies depend on the entrepreneurial competencies in electronic trade operations massively in companies listed on the Palestine Stock Exchange for a long time.

### 7.5. Testing the Study's Hypotheses

The following table shows the outcome of the statistical analysis based on the multiple regression models used to test the study's hypotheses. Whereas the number of observations subjected to statistical analysis, 528 annual observations, is available from the study's final sample, the interpretation coefficient (0.1031) indicates that the independent variable (X1) that represents the period of possession explains 10.31% of the change in the variable follower's behavior (Y1, Y2), correspond in the financial performance measured through the sales value and the companies value listed on the Palestine Exchange This percentage is statistically significant since the probability value (0.0002) for the F test (8.87) does not surpass 5%.

**Table 10**  
**Outcome of Testing the Study's Hypotheses**

Y1, Y2	Regression Coefficient	T-test	The probability value of t	Impact	Decision
X1	-1.355	-2.32	0.022	positive	Reject the first null hypothesis
X2	28.931	4.16	0.000	positive	Reject the second null hypothesis
Constant Variable	90.131	10.63	0.000		
Observations	132	0.000	0.000	0.000	0.000
F test	8.87	0.000	0.000	0.000	0.000
F probability value	0.0002	0.000	0.000	0.000	0.000
Interpretation coefficient	0.1031	0.000	0.000	0.000	0.000

\*Variable (y1) is the dependent variable that represents financial performance as measured by sales value; variable (y2) is the dependent variable that represents financial performance as measured by company value; variable (X1) is the independent variable that represents e-commerce; and variable (X2) is the intermediate variable that represents entrepreneurial competencies.

#### 7.5.1. The First Hypothesis Testing Results (H01)

The first hypothesis states that there is no significant impact at the significance level ( $\alpha \leq 0.05$ ) for the role of e-commerce use on the financial performance (sales value, company value) of companies listed on the Palestine Exchange.

According to the previous table, e-commerce use has a favorable influence on the financial performance of the companies listed on the Palestine Exchange, which means that the higher the e-commerce use, the greater the value of financial performance. It is important to note that this impact is significant because the probability value (0.000) for the t-test is less than 5%. Therefore, this result does not support the null hypothesis, which assumes no significant impact between the two variables. As a result, the null hypothesis must be rejected in favor of the alternative, which states that the role of e-commerce use in controlling financial performance (sales value and company value) for companies listed on the Palestine Exchange has a significant impact.

### 7.5.2. The Second Hypothesis Testing Results (H02)

The second hypothesis states that there is no significant impact at the significance level ( $\alpha 0.05 \leq$ ) for the role of entrepreneurial competencies on the financial performance (sales value, company value) of companies listed on the Palestine Exchange.

According to the previous table, entrepreneurial competencies positively influence the financial performance of companies listed on the Palestine Exchange. It is important to note that this impact is significant because the probability value (0.000) for the t-test is less than 5%. Therefore, this result rejects the null hypothesis, which assumes no significant impact between the two variables. Thus, the alternative hypothesis that states a significant impact of a role must accept the efficiency of Entrepreneurial competencies on the financial performance (sales value, company value) of companies listed on the Palestine Exchange.

### 7.5.3. The Third Hypothesis Testing Results (H03)

The third hypothesis states that there is no significant impact at the significance level ( $\leq \alpha 0.05$ ) for the role of e-commerce use through Entrepreneurial competencies on the financial performance of companies listed on the Palestine Exchange.

According to the preceding table, e-commerce has a favorable impact on financial performance, as measured by sales value and company value listed on the Palestine Exchange, due to its high level of entrepreneurial competencies. It means that the higher the e-commerce that relies on entrepreneurial competencies, the higher the financial performance, as measured by the sales and company value. It is crucial to note that this impact is significant because the probability value (0.022) for the t-test is less than 5%, and therefore this result rejects the null hypothesis, which assumes that there is no significant impact between the two variables. Accordingly, the alternative hypothesis, which states that the e-commerce use role through the efficiency of entrepreneurial competencies has a significant impact on the financial performance of companies listed on the Palestine Exchange, must be accepted.

## 8.Results:

Based on the analysis of the hypotheses of the study, the researchers reached the following conclusions:

1- There is a significant impact on the role of e-commerce use through the efficiency of entrepreneurial competencies in controlling the financial performance of companies listed on the Palestine Stock Exchange. Because dealing in e-commerce requires mutual acceptance of the benefits and drawbacks, it adds value by assisting institutions of all sizes to join global markets at the lowest possible time and cost. It also evaluates individuals making global choices of the best products at the lowest prices by relying on entrepreneurial competencies and high-level strategic planning, which relies on creative ideas in marketing products and participating in controlling the companies' financial performance. Furthermore, doing electronic business improves the financial performance of institutions, and these companies have seen significant growth in recent years, holding the first rank in terms of revenues at the Palestinian level. This result is consistent with the findings of the studies done by Kraemer & Gibbs (2005) and Hussain et al. (2002), which demonstrate that e-commerce use contributes to financial performance control through electronic Entrepreneurial competencies.

2- There is a significant impact of e-commerce on the financial performance (sales value, company value) of companies listed on the Palestine Exchange. It is explained by the fact that the e-commerce presence in these companies helps in the scientific application of accounting systems, thus increasing the efficiency of financial performance. Hence, there is a role for e-commerce in providing information, indicators, and results that raise the efficiency of these companies' financial performance, and this result agrees with the study's findings (Hussain et al., 2022), which show that e-commerce increases the control of companies' financial performance.

3- There is a significant impact on the role of entrepreneurial competencies in controlling the financial performance (sales value, company value) of companies listed on the Palestine Exchange. This is explained by the fact that the use of modern technology, which depends on the efficiency of entrepreneurial competencies in e-commerce businesses, leads to an increase in the efficiency of the financial performance of companies. Hence, there is expertise in e-commerce systems based on pioneering innovative methods and an appropriate technological structure that facilitates this process, and this result agrees with both studies' findings (Kraemer & Gibbs, 2005; Hussain et al., 2022), which show that the efficiency of e-commerce entrepreneurial competencies contributes to controlling the financial performance of companies.

## 9.Discussion

### 9.1. Theoretical Advancement

The paper makes three original contributions. First, the significance of e-commerce, based on entrepreneurial competencies, in improving financial performance since it benefits company performance and works to manage and develop it. Second, the novelty of e-commerce in Palestine, based on entrepreneurship and helping to revitalize commercial transactions, is evident in the financial performance of companies. Third, the growing interest in the field of entrepreneurship is one of the indicators of the increasing development of e-commerce alike, and the importance of the role of entrepreneurial competencies, on which e-commerce is based, is represented in its success, the development of its methods, and its high ability to influence financial performance.

## 9.2. Practical Advancement

Our findings also contribute several insights into e-commerce literature and management practice. Firstly, the results of the applied study related to the role of e-commerce in Palestinian companies provide a scientific approach that increases their interest in adopting Entrepreneurial competencies in e-commerce applications in their e-business. Secondly, the importance of financial performance is reflected in the financial statements of e-commerce companies, as they provide information that serves multiple parties. This study will assist the beneficiaries in making sound investment choices.

Thirdly, the significance of the study variables for companies listed on the Palestine Stock Exchange, as tremendous progress in e-commerce has resulted in a trend towards controlling the financial performance of operations through e-commerce websites, contributing to monitoring all the indicators of financial companies.

## 10. Conclusion:

This research has provided valuable insights into the correlation between e-commerce utilization and the financial performance of Palestine Stock Exchange-listed companies. The results refute the null hypothesis, demonstrating that e-commerce utilization significantly impacts sales and company value. This emphasizes the significance of integrating e-commerce strategies into business operations to improve financial performance. In addition, the study identifies Entrepreneurial competencies as a significant moderator of this relationship. It emphasizes the need for businesses to develop and enhance their entrepreneurial skills to maximize their financial success by leveraging the benefits of e-commerce.

This study contributes to the extant literature on e-commerce and financial performance by filling a research gap and providing empirical evidence unique to the Palestinian context. In addition, it emphasizes the importance of the Palestine Stock Exchange in fostering economic growth and national development.

By recognizing the potential of e-commerce to boost financial performance, managers and practitioners can benefit from the findings of this study. To effectively harness the force of e-commerce, they should concentrate on developing entrepreneurial abilities within their organizations. This may include investing in training programs, employing innovative technologies, and cultivating an entrepreneurial culture.

Nevertheless, it is essential to recognize the limitations of this research. The scope of the study is limited to companies listed on the Palestine Stock Exchange, so the findings may not apply to other contexts. In addition, the study does not investigate other potential moderating variables that could influence the relationship between e-commerce utilization and financial performance.

The study concludes with valuable insights into the impact of e-commerce and entrepreneurial competencies on financial performance. It serves as a foundation for future research in this area and provides practical implications for managers and practitioners seeking to improve business outcomes via e-commerce strategies.

### Future Directions

Following the prior discussion and to generalize our findings, future research should concentrate more broadly on developing and developed countries. In addition, future research can examine additional moderating variables, such as entrepreneurial efficiencies and entrepreneurial leadership.



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