

-RESEARCH ARTICLE-

FACTORS EFFECTING CROSS-BORDER E-COMMERCE STRATEGIC PERFORMANCE OF SAUDI ORGANIZATIONS

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—Abstract—

The goal of this work is to explore the complex interconnections connecting many elements that impact the strategic the evaluation of the cross-border e-commerce performance among Saudi companies operating within the E-commerce industry. The study utilizes a sample of 207 questionnaires completed by employees. It employs a comprehensive model that includes perceived benefits, lack of organizational compatibility, E-supply chain management adoption, technology infrastructure, IT capabilities, and international marketing capabilities as predictors of cross-border e-commerce strategic performance. As per the findings, there are significant positive associations, which confirm that perceived benefits, lack of organizational compatibility, adoption of e-supply chain management, technological infrastructure, information technology capabilities, and international marketing capabilities all play pivotal roles in forming the strategic outcomes of cross-border e-commerce operations. The research utilizes formative indicators to assess IT capabilities, cross-border e-commerce strategy accomplishment and, international marketing capabilities, hence enhancing the methodological robustness of the investigation. Theoretically, this study

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highlights the progress of current frameworks by offering empirical evidence to substantiate the suggested linkages whereas practically findings of this study provide firms with actionable insights that may be utilized to improve the effectiveness of their cross-border e-commerce strategy. Nevertheless, the research acknowledges certain constraints, such as possible biases in respondents' answers and the narrow scope of the study limited to a certain business. As a result, it emphasizes the need for prudence when attempting to apply these findings to a broader context. Potential areas for future research could include investigating factors that moderate the relationship between cross-border e-commerce strategic performance and other variables, examining the temporal dynamics of this relationship across time, and assessing the influence of developing technologies on the strategic performance of cross-border e-commerce. In brief, this work accelerate improvement to the comprehension of cross-border e-commerce operations by providing theoretical insights, practical recommendations, and opportunities for further investigation in the ever-changing global e-commerce environment.

Keywords: Perceived Benefits, Lack of Organizational Compatibility, Technology infrastructure (IT capabilities), Cross-border e-commerce strategic performance, E - Supply Chain Management Adoption, and International marketing capabilities.

INTRODUCTION

Electronic commerce (e-commerce) refers to the transactional activities involving the acquisition, sale, or transfer of products, information using computer networks and services. E-commerce can be considered as a component of the larger concept of e-business, which encompasses a wider range of parameters such as company partnerships, customer assistance, commercial transactions, and employment opportunities. In the realm of e-commerce, the integration of networking technologies is imperative, concomitant with the requisite inclusion of a robust database or database system, alongside electronic mail functionalities (often referred to as e-mail), various non-computer technologies for delivery purposes, and a payment mechanism. Considering the fact that e-commerce operates through electronic means, it enables clients to conveniently access and place orders from various geographical places. The work presented by [Kedah \(2023\)](#) highlights the advantageous aspects of e-commerce for businesses and underscores the need of implementing e-commerce services.

[Taherdoost and Madanchian \(2023\)](#) investigates the potential use of blockchain technology within the realm of electronic commerce to efficiently address issues associated with payment disputes, fraudulent activities, and the lack of transparency. In the research carried out by [Aggarwal et al. \(2023\)](#), a comprehensive examination is undertaken to investigate the establishment and growth of an electronic commerce bookshop. This particular bookshop is designed to meet the demands of those who have a penchant for books, offering an extensive assortment of literary works alongside user-

friendly functionalities. In brief, the aforementioned papers collectively underscore the essentials of e-commerce in the realm of commerce, the enhancement of the digital retail encounter, the promise of block chain technology, and the convenience and availability of internet-based bookstores.

These e-commerce industry's swift growth has brought forth fresh vigour and impetus to the logistics sector. Nevertheless, the progression of cross-border e-commerce logistics is impeded by several parameters, including the intricate processes, inadequate infrastructure, and the significant influence of customs and tax policies. Thus, the advancement of cross-border e-commerce has been impeded primarily by the limitations posed by logistical services. This work presents strategic suggestions for enhancing the cross-border e-commerce logistics services by analysing the current state of such services. Yuan (2023) emphasizes the difficulties encountered within the logistics sector based on cross-border e-commerce, which encompass intricate operational procedures and inadequate infrastructure. In their study, Chen and Wang (2023) examines the potential utilization of Azure cloud computing platforms for enhancing the efficiency and cost-effectiveness of cross-border e-commerce operations. The study conducted by Zhai (2023) examines the marketing methods utilized by merchants on Alibaba.com. The research encompasses many aspects of marketing, including visual marketing, product marketing, advertising marketing, and independent marketing.

Globally, within the practice of leveraging e-commerce platforms and digitizing conventional trade connections to enable transactions across companies situated in distinct nations. These platforms are centred on the strategic utilization of marketing, logistics, public services, payment systems, and additional economic activities associated with the export/import trade in order to stimulate the expansion of production related to manufacturing. We are currently experiencing a new era of accelerated growth in cross-border e-commerce, which has the potential to reduce the temporal and spatial gap between products and markets. It will serve as the primary method for boosting trade facilitation, which results in the successful execution of policies. The emergence of cross-border e-commerce has given rise to a novel ecological paradigm. The evolution of cross-border e-commerce can be enhanced by establishing a novel ecosystem that is founded on the cross-border e-commerce business model. Xiao (2023) highlights the significance of supply chain management with respect to cross-border e-commerce. Moreover, they further extend the context by underscoring the necessity for further study aimed at enhancing operational efficiency and mitigating costs. Covering the range of China's service trade exports Zhu (2023) analyses the impact of the growth of cross-border e-commerce.

Herein, this work aimed to explore the impact of perceived benefits, lack of organizational compatibility, E-supply chain management adoption, technology infrastructure, IT capabilities, and international marketing capabilities as predictors of

cross-border e-commerce strategic performance among Saudi organizations involves in E-commerce operations. Following sections explain the relationships among all these variables.

LITERATURE REVIEW AND HYPOTHESIS

According to Goldman's (2021) research, the use of digital marketing strategies, regarded as a strategic strategy, yields favourable outcomes in terms of international business performance. According to Cassia and Magno (2022), the diverse effects on the strategic and financial success of e-commerce across borders stems from the influence of information technology, international marketing, and the capabilities associated with export operations. The study conducted by Ting and Nam (2016) centred on the examination of customer happiness in relation to the cross-border e-commerce. The findings revealed that factors such as website trustworthiness, convenience, and interactivity have a beneficial impact. This, in turn, has the potential to enhance strategic performance. In a recent study, Hu (2022) examined the determinants of competitiveness in enterprises and emphasized the importance of service level, customer satisfaction, cost management, and capital efficiency as key factors that significantly influence enterprise competitiveness. These factors can be regarded as indicators of strategic performance. As per the study of Yang et al. (2023), the inherent quality of service offered by digital marketplaces and the shown digital shift capacity of firms involved in cross-border e-commerce. The goal is to analyse the subsequent influence on corporate performance. In a research undertaken by Han et al. (2023), it was discovered that the quality of a platform, including various elements, including the quality information available, system, and service, exerted a beneficial influence on consumers' impression of value and their inclination to engage in a purchase. In a study conducted by Feng (2015), it was discovered that the empowerment provided by platforms has a considerable positive impact on the entrepreneurial performance of grassroots entrepreneurs engaged in commerce. This relationship is further influenced by the mediating factor of resource bricolage. In a study conducted by Guo and Shang (2023), the decision-making processes employed by cross-border e-commerce platforms. The observation revealed that the implementation of strategies for the dissemination of information and the provision of complimentary shipping services have a favourable effect on such platforms.

H1: Perceived benefits positively influence cross-border e-commerce strategic performance.

In an investigation carried out by Saini and Johnson (2005), it was established that the presence of strategic flexibility, trust-building capability, and information technology capability are essential factors for achieving superior company performance within the framework of e-commerce. Zhang (2021) emphasized a range of challenges encountered in

cross-border e-commerce, including inadequate logistics methods and limited brand competitiveness. In their work, [Feng \(2015\)](#) highlighted the absence of effective coordination that encompassing many aspects such as warehouse management, transportation, customs procedures, and distribution operations. The study indicates that hurdles to cross-border electronic commerce (CBEC) are particularly pronounced among organizations that are characterized by smaller size, little expertise, and a lack of affiliation with other companies. This implies that the online export performance of a firm can be influenced by organizational characteristics such as firm size and experience in relation to hurdles encountered in cross-border electronic commerce (CBEC). The paper posits that companies characterized by lower scale, limited expertise, and absence of affiliations with other firms may exhibit heightened susceptibility to barriers in cross-border electronic commerce (CBEC). Consequently, such companies should exercise further caution in addressing these impediments. According to [Dikova and Sahib \(2013\)](#), the execution of acquisitions is contingent upon the acquirer's level of experience. Experienced acquirers can get advantages from cultural disparities, resulting in enhanced performance. As per the research carried out by [Mensah et al. \(2020\)](#), it was determined that cultural factors, including power distance, collectivism, and long-term orientation, had a substantial influence on the adoption of cross-border e-commerce. [Wang \(2020\)](#) highlights the significance of incorporating cultural variances while devising network marketing tactics for cross-border electronic commerce. In the study conducted by [Vasilaki \(2011\)](#), the concept of transformational leadership is introduced and the research unveil a constructive moderating influence indicating the association between cultural distance and acquisition performance.

H2: Lack of organizational compatibility positively influences cross-border e-commerce strategic performance.

[Xia and Liu \(2021\)](#) proposes an approach that utilizes IoT technology. The target of their work was to enhance the efficiency of cross-border e-commerce with supply chains through effective management and coordination. [Pan \(2020\)](#) highlights the importance of implementing a new logistics management supply chain framework of e-commerce. The research undertaken by [Wei and Wang \(2021\)](#) centres on the examination of integrated management modes in cross-border e-commerce services with the aim of enhancing supply chain development. [Tang et al. \(2023\)](#) emphasizes the significance of utilising data-intensive inventory forecasting of cross-border e-commerce service automation. This approach involves the integration of artificial intelligence models, which can contribute to the enhancement of supply chain development and the mitigation of the bullwhip effect. In an investigation carried out by [Hamadneh et al. \(2023\)](#), several factors were identified as having a favourable influence on the intention to implement e-supply chain management systems. These elements encompass recognized relative advantage, competitive exigencies, customer influence, top management endorsement, personnel proficiency, and financial resources.

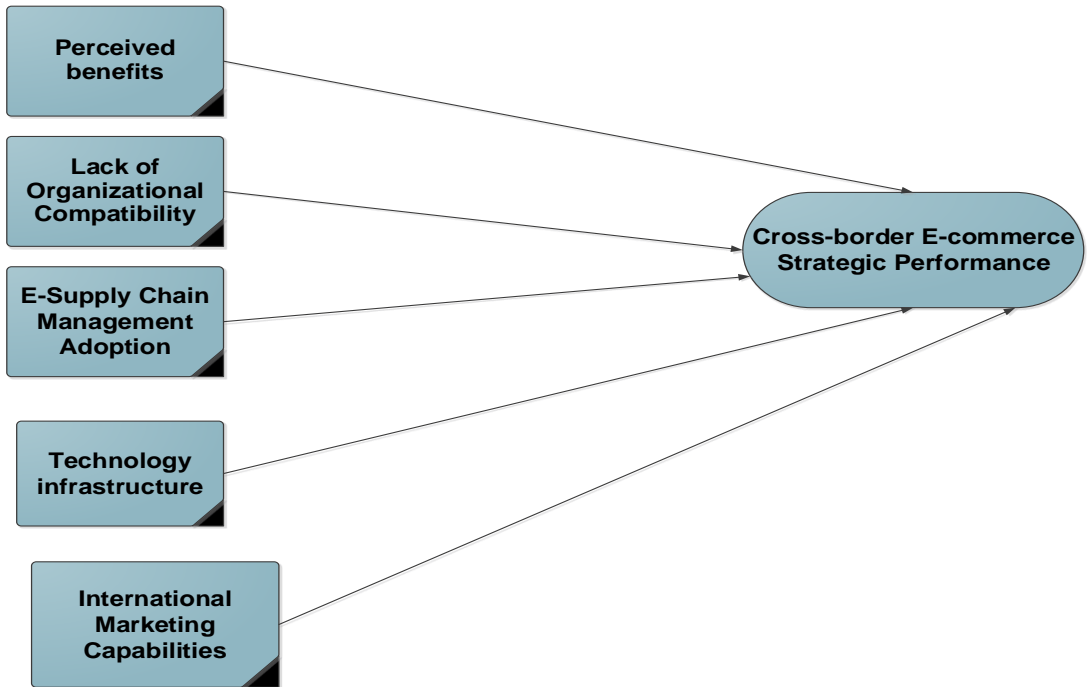
H3: E-supply chain management adoption positively affect cross-border e-commerce strategic performance.

According to [Yu et al. \(2021\)](#), the implementation of IT facilitate supply chain integration inside cross-border e-commerce enterprises. This integration subsequently leads to enhancements in both operational and financial performance. [Zhu \(2004\)](#) and [Kuang \(2008\)](#) both underscore the significance of the synergy between the infrastructure of IT & electronic commerce (e-commerce) capacity, emphasizing the favourable influence on organizational performance in areas like as sales, inventory turnover, and cost reduction. Moreover, the scholarly articles provide a robust information technology infrastructure. This also provide a proficient capabilities that plays a role in augmenting the crucial strategic performance of electronic commerce based on cross-border. [Dong \(2023\)](#) highlighted the significance of information technology in facilitating trade flows and augmenting competitiveness. According to [Han et al. \(2023\)](#), service quality provides influencing role over the purchase intentions of consumers. Specifically, it indicates a positive impact associated with high service quality on consumers' decision-making processes.

H4: Technology infrastructure (IT capabilities) positively influences cross-border e-commerce strategic performance.

[Goldman et al. \(2021\)](#), suggest that the utilization of digital marketing strategies has a favourable impact on the success of international business in the context of cross-border e-commerce. [Tolstoy et al. \(2022\)](#) underscored the significance of online marketing capabilities, particularly marketing ambidexterity, in harnessing the impact on international performance in the framework of e-commerce SMEs. [Li et al. \(2021\)](#) carried out an investigation in which they identified many key elements that are important for the structure of cross-border e-commerce capabilities. The components encompassed in this analysis consist of the prevailing worldwide marketing landscape, advancements in logistical e-commerce technology, and the prevailing conditions that facilitate global electronic payment platforms. [Zhai \(2023\)](#), analysis the marketing tactics employed by merchants on Alibaba.com within the framework of cross-border e-commerce. The results revealed that the utilization of visual marketing, product marketing, advertising marketing, and independent marketing all played significant roles in the achievement of success for these firms. [Cao and Putit \(2023\)](#) undertook a systematic review to comprehensively analyse the marketing methods employed by B2C platforms in Chinese import international e-commerce sector. The study successfully identified a range of marketing strategies implemented by these platforms. [Ma \(2023\)](#) highlighted the importance of fostering innovation in marketing channels for effectively cater to the varied demands of the commerce market.

H5: International marketing capabilities positively influences cross-border e-commerce strategic performance.



METHODOLOGY

Table 1: Instruments for Data Collection

<p>“Perceived Benefits</p>	
<p>1. Normally, on the organizational level it is practiced to expand market for existing products/services 2. Normally, on the organizational level it is practiced to enter new businesses or markets 3. Normally, on the organizational level it is practiced to reduce costs 4. Normally, on the organizational level it is practiced to improve coordination with customers and suppliers.”</p>	
<p>“Lack of Organizational Compatibility</p>	<p>Gibbs and Kraemer (2004)</p>
<p>1. In my organization it is practiced to making needed organizational changes 2. My organization has ability to use internet as part of business strategy 3. In my organization it is practiced to finding staff with e-commerce expertise 4. Normally, on the organizational level it is practiced to costs of implementing an e-commerce site.”</p>	

<p>“E - Supply Chain Management Adoption</p> <ol style="list-style-type: none"> 1. Our organization uses ECM (Enterprise Content Management), EDI, or others software for processing. 2. Our organization shares information of product, price and promotion online 3. Our organization uses Internet for taking order and billing and automated tracking system for delivery. 4. Our organization uses WMS (Warehouse Management System) and ESCM (Electronic Supply Chain Management)” 	<p>Khan et al. (2014)</p>
<p>“Technology infrastructure IT capabilities (formative measure)</p>	
<ol style="list-style-type: none"> 1. Our organization uses e-commerce and internet-based technologies 2. Our organization manages digital marketing tools.” 	
<p>“International marketing capabilities (formative measure)</p>	
<ol style="list-style-type: none"> 1. Our organization understands foreign customers’ needs 2. Our organization manages relationships with foreign customers 3. Our organization applies international marketing strategies effectively.” 	<p>Cassia and Magno (2022)</p>
<p>“Cross-border e-commerce strategic performance (formative measure)</p>	
<ol style="list-style-type: none"> 1. Our organization manages sales objectives of cross-border e-commerce 2. Our organization manages other strategic objective of cross-border e-commerce (e.g. access to new foreign markets) 3. Our organization manages Cross-border e-commerce financial performance 4. Our organization manages Cross-border e-commerce sales as a percentage of total export sales” 	

Data Collection Method and Sample

For this investigation into the execution of cross-border e-commerce operations in Saudi firms, 300 questionnaires were distributed to individuals employed in the e-commerce sector to gather essential information. The purpose of these questionnaires was to evaluate a variety of aspects, some of which include perceived benefits, an absence of organizational compatibility, and adoption of E-Supply Chain Management,

technological infrastructure, and IT capabilities. In addition to this, formative measurements were used in order to evaluate the capabilities of international marketing as well as the strategic performance of cross-border e-commerce.

There was a total of 207 completed replies obtained, which were then employed for further analysis. The questionnaires were distributed at a total of 300 different companies. Employees from a variety of Saudi firms that were involved in e-commerce operations were recruited to take part in the study. This ensured that the participants were a representative sample of the population that was being investigated. The data that were collected were intended with a particular emphasis on the technological, organizational, and strategic elements within the Saudi Arabia's context.

DATA ANALYSIS

Descriptive

The examination of the obtained data revealed that the average perceived benefits score among employees in Saudi E-commerce firms was 3.89, with a 0.54 standard deviation (SD). The Cronbach's alpha coefficient of 0.784 demonstrated by a variable. Thus, highlighting a satisfactory level of internal consistency. In relation to the variable "Lack of Organizational Compatibility," the statistical analysis yielded a mean value of 4.01, accompanied by a 0.59 SD. Furthermore, the internal consistency of this variable was assessed to be 0.711. The study revealed a noteworthy positive connection of 0.24 ($p < 0.05$) between individuals' perceived benefits and their perception of a lack of compatibility inside the company.

E-Supply Chain Management gives a mean score=3.54 with a SD=0.64. The assessment of measurement reliability was conducted utilising Cronbach's alpha, resulting in a value of 0.764. The findings of the association study unveiled a statistically significant positive association ($r = 0.51$, $p < 0.01$) between the absence of organizational compatibility and the adoption of E-Supply Chain Management. The average score for the formative measure of Technology Infrastructure and IT capabilities was 3.68, with a SD=0.61. The reliability of the measure, as indicated by Cronbach's alpha, was 0.801. The obtained values from this study shows that there were notable positive associations between lack of organizational compatibility ($r = 0.34$, $p < 0.01$) and IT capabilities ($r = 0.44$, $p < 0.01$).

The formative assessment of International Marketing Capabilities resulted in a mean score of 3.94, with a SD=0.48 correspondingly. Reliability measurement appraised through the computation of Cronbach's alpha, resulting in a coefficient of 0.811. Significant positive relationships were observed between lack of organizational compatibility ($r = 0.29$, $p < 0.05$), E-Supply Chain Management Adoption ($r = 0.37$, $p < 0.01$), and IT skills ($r = 0.31$, $p < 0.05$).

The strategic performance of Cross-Border E-commerce, as measured by a mean of 3.22. This further gives a SD=0.60. This also demonstrated a Cronbach's alpha coefficient=0.813. The work revealed noteworthy positive associations between perceived benefits ($r = 0.40, p < 0.01$), lack of organizational compatibility ($r = 0.28, p < 0.05$), E-Supply Chain Management Adoption ($r = 0.40, p < 0.01$), Technology Infrastructure ($r=0.06, p < 0.01$). Whereas, the IT skills gives ($r = 0.28, p < 0.05$). Furthermore, a noteworthy inverse relationship was identified in regard to the absence of organizational compatibility ($-0.28, p < 0.05$).

Table 2. Descriptive Statistics

Variable	Mean	SD	Cronbach's alpha	1	2	3	4	5	6
Perceived Benefits	3.89	.54	0.784						
Lack of Organizational Compatibility	4.01	.59	0.711	0.24*					
E - Supply Chain Management Adoption	3.54	.64	0.764	0.51**	0.054				
Technology infrastructure IT capabilities (formative measure)	3.68	.61	0.801	0.34	0.44**	0.24			
International marketing capabilities (formative measure)	3.94	.48	0.811	0.29*	0.37	0.31*	0.24		
Cross-border e-commerce strategic performance (formative measure)	3.22	.60	0.813	0.40	0.28*	0.40**	0.06**	0.28*	

** Correlation is significant at the 0.01 level (2 tailed)

* Correlation is significant at the 0.05 level (2 tailed)

Confirmatory Factor Analysis (CFA), findings revealed that the construct labelled "Perceived Benefits" explained 25.34% of the observed variability. Additionally, the Kaiser-Meyer-Olkin (KMO) value of 0.774 suggested a sufficient level of sampling adequacy. In a similar vein, the component known as "Lack of Organizational Compatibility" accounted for 34.98% of the observed variation. The KMO statistic, measures the appropriateness of the data for factor analysis. This yielded a value of 0.801, indicating a substantial level of applicability. The study on the adoption of E-Supply Chain Management revealed a variance explanation of 40.47%. The KMO statistic of 0.833 indicated a high level of readiness for conducting factor analysis. The variable "Technology Infrastructure" explained 56.27% of the variance, with a KMO value of 0.764, suggesting a strong suitability for factor analysis.

The examination of the formative measure "IT capabilities" yielded a variance explanation of 33.28%. The KMO value of 0.761 indicated satisfactory sample adequacy. The construct known as "International Marketing Capabilities" contributed to 61.34% of the observed variability, as determined by the Kaiser-Meyer-Olkin (KMO) statistic of 0.647. The results of the factor analysis offer vital insights into the latent structure of the data obtained from the questionnaire, suggesting that the chosen variables effectively capture a significant proportion of the variability in the constructs being studied. The KMO statistics provide additional evidence to validate the appropriateness of the data for factor analysis. This further confirms that the strength and reliability of the selected factors within the dataset.

Table 3: Findings of the CFA of Questionnaire Data

	% of Variance	KMO Statistics
Perceived Benefits	25.34	0.774
Lack of Organizational Compatibility	34.98	0.801
E - Supply Chain Management Adoption	40.47	0.833
Technology infrastructure	56.27	0.764
IT capabilities (formative measure)	33.28	0.761
International marketing capabilities (formative measure)	61.34	0.647

Multiple-Regression Analysis

Utilizing multiple-regression analysis, we have examined our hypotheses. Consequently, the framework of the multiple regression can be articulated as follows: overall satisfaction = f (Perceived Benefits, Lack of Organizational Compatibility, E - Supply Chain Management Adoption, Technology infrastructure, IT capabilities (formative measure) and International marketing capabilities (formative measure) (Hair et al., 2007). Within this regression equation, the independent variables encompass four factors, while the dependent variable is overall satisfaction as shown in Table 4.

This analysis is used to evaluate the associations between various independent variables, including Perceived Benefits, Lack of Organizational Compatibility, E-Supply Chain Management Adoption, Technology Infrastructure, & IT capabilities. The regression equation presented encompasses the factors of Perceived Benefits, Lack of Organizational Compatibility, E-Supply Chain Management Adoption, Technology Infrastructure, IT capabilities, and International Marketing Capabilities, which all influence the total satisfaction.

The standardized coefficients (Beta) presented in Table 4 offer valuable insights regarding the magnitude and direction of these associations. It is worth mentioning that

there was a statistically positive relationship correlation Perceived Benefits and Cross-Border E-commerce Strategic Performance (Beta = 0.247, $p < 0.01$). In a similar vein, it was found that the absence of organizational compatibility demonstrated a statistically significant relationship positive (Beta = 0.355, $p < 0.05$) with strategic performance, suggesting its influence on this outcome.

The study found a statistically significant positive link (Beta = 0.248, $p < 0.01$) between the adoption of E-Supply Chain Management and Cross-Border E-commerce Strategic Performance, indicating that E-Supply Chain Management has a meaningful impact on strategic performance. Regression analysis suggest that a substantial relationship positive between technology infrastructure (Beta = 0.397, $p < 0.05$), IT capabilities (Beta = 0.297, $p < 0.05$), and International Marketing Capabilities (Beta = 0.369, $p < 0.01$) and strategic performance.

The assessment of the overall model fit was conducted by examining the R2 and adjusted R2 coefficients. The R-squared value of 0.228 shows that 22.8% of the variability in Cross-Border E-commerce Strategic Performance can be accounted for by the collective impact of the independent variables. The corrected R-squared value, considering the number of predictors, was found to be 0.201. The F-statistic, which has a value of 18.641 ($p < 0.01$), provides additional evidence for the overall significance of the regression model.

In brief, the findings of the multiple-regression analysis highlight the noteworthy impacts of Perceived Benefits, Lack of Organizational Compatibility, E-Supply Chain Management Adoption, Technology Infrastructure, IT capabilities, and International Marketing Capabilities on the variability observed in Cross-Border E-commerce Strategic Performance among the Saudi organizations that were surveyed.

Table 4: Regression Results

	Standardized Coefficients		Adjusted	
	Beta	R ²	R ²	F
Perceived Benefits	0.247**	0.228	0.201	18.641**
Lack of Organizational Compatibility	0.355*			
E - Supply Chain Management Adoption	0.248**			
Technology infrastructure	0.397*			
IT capabilities	0.297*			
International marketing capabilities	0.369**			

a. Dependent Variable: Cross-border e-commerce strategic performance

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Hypothesis Testing

The outcomes of hypothesis testing, as displayed in Table 5, demonstrate that all six hypotheses were subjected to statistical evaluation, and the accompanying p-values were analysed to ascertain their acceptance or rejection.

Hypothesis 1, which proposed a correlation between Perceived Benefits and Cross-Border E-commerce Strategic Performance, produced a p-value=0.000, suggesting statistical significance. Thus, it may be concluded that Hypothesis 1 is supported, indicating that Perceived Benefits exert a substantial influence on strategic performance.

Hypothesis 2, which examines the correlation between Lack of Organizational Compatibility and Cross-Border E-commerce Strategic Performance, yielded a p-value = 0.021. Given that the p-value is below the predetermined significance level=0.05, this suggest that Hypothesis 2 is accepted, indicating a statistically significant association.

Hypothesis 3, which investigates the correlation between the adoption of E-Supply Chain Management and the strategic performance of Cross-Border E-commerce, yielded a p-value=0.014. The p-value's significance provides support for accepting Hypothesis 3, suggesting a substantial impact.

The p-value obtained for Hypothesis 4, which posited a relationship between Technology Infrastructure and Cross-Border E-commerce Strategic Performance, was 0.011. Based on its observed statistical significance, Hypothesis 4 is deemed to be accepted, indicating a substantive association.

Hypothesis 5, which examines the influence of IT capabilities on the strategic performance of cross-border e-commerce, resulted in a p-value=0.001. The obtained p-value provides evidence in favour of accepting Hypothesis 5, suggesting a statistically significant relationship.

Hypothesis 6, which investigates the correlation among International Marketing Capabilities and Cross-Border E-commerce Strategic Performance, yielded a p-value =0.018. Given that the p-value is smaller than the predetermined significance level, we observe that Hypothesis 6 is accepted, indicating a statistically significant influence.

The findings of hypothesis testing suggest the acceptance of all six hypotheses pertaining to Perceived Benefits, Lack of Organizational Compatibility, E-Supply Chain Management Adoption, Technology Infrastructure, IT capabilities, and International Marketing Capabilities. This is evidenced by the respective p-values, which highlight the importance of these factors in influencing the strategic performance within Saudi organizations.

Table 5: Results of Hypothesis Testing

Hypothesis	P-Value	Testing result
Perceived Benefits	0.000	Accepted
Lack of Organizational Compatibility	0.021	Accepted
E - Supply Chain Management Adoption	0.014	Accepted
Technology infrastructure	0.011	Accepted
IT capabilities	0.001	Accepted
International marketing capabilities	0.018	Accepted

DISCUSSION

The discussion reveals that the intricate interplay between perceived benefits, organizational compatibility, supply chain practices, technology infrastructure, IT capabilities, and international marketing collectively shapes and influences the strategic performance of organizations engaged in cross-border e-commerce. These findings furnish a comprehensive comprehension of the underlying dynamics and furnish valuable insights for organizations striving to optimize their strategies within the global e-commerce milieu. The study's examination of the connection amid perceived benefits and strategic cross-border e-commerce performance revealed a significant positive influence, suggesting that employees perceiving advantages, such as improved efficiency and job satisfaction, contribute positively to strategic outcomes within the framework of cross-border operations.

The favourable impact of employees' recognition of benefits on the strategic performance of cross-border e-commerce indicates that those who perceive advantages, such as heightened efficiency, refined work processes, and heightened job satisfaction, play a constructive role in advancing the organization's strategic objectives. This study highlights how important it is to recognize and nurture a pleasant work environment that is aligned with the overall strategic objectives of operations including cross-border e-commerce. Organizations that run into compatibility concerns may be forced to rethink and modify their organizational structures in order to stimulate creativity and flexibility in order to better align themselves with the requirements of cross-border e-commerce.

The successful integration of E-supply chain management improve operational efficiency, but it also contributes to the organization's capacity to respond to the dynamic difficulties posed by cross-border transactions, which ultimately has a beneficial influence on the outcomes of strategic planning. Technology infrastructure, namely information technology capabilities, has a favourable impact on the strategic performance of international online commerce. The positive correlation between technological infrastructure, in particular information technology capabilities, and

strategic performance in cross-border e-commerce draws attention to the central role that technology plays in determining the level of an organization's overall success. Strong information technology capabilities allow businesses to successfully negotiate the complexity of international operations. These capabilities also facilitate data management, communication, and innovation, all of which are essential components of an organization's strategic performance.

The following are examples of how capabilities in international marketing can favourably influence the strategic execution of cross-border e-commerce. The importance of having strong global marketing strategies is highlighted by the fact that there is a positive correlation between a company's international marketing capabilities and its strategic performance in cross-border e-commerce. Organizations that place a significant emphasis on international marketing are in a better position to comprehend the varied requirements of their target markets, to adapt their products and services in accordance with those requirements, and to develop a competitive edge in the global e-commerce landscape, all of which eventually contribute to superior strategic performance. In conclusion, the nuanced details that were revealed by these findings suggest that fostering positive perceptions among employees, addressing organizational compatibility challenges, embracing E-supply chain management, investing in advanced technology infrastructure, and cultivating international marketing capabilities are crucial for achieving optimal strategic performance in the realm of cross-border e-commerce within the specific context of Saudi organizations. This is because these are the factors that are most likely to lead to optimal strategic performance. These insights provide actionable considerations for organizational leaders who are looking to navigate and achieve success in the constantly shifting terrain of global e-commerce.

Theoretical Implications

The study enhances current theoretical frameworks by providing actual evidence that supports the positive associations stated in the hypotheses. The empirical validation concerning the influence of perceived benefits, organizational compatibility, E-supply chain management adoption, technology infrastructure, & IT capabilities to the theoretical understanding of these constructs within the context of organizations operating in the global e-commerce sphere.

Practical Implications

The pragmatic consequences of this research hold considerable importance and should be carefully considered. The report provides practical insights for professionals seeking to improve the strategic performance of cross-border e-commerce. The achievement of a more strategic and successful cross-border e-commerce operation can be facilitated by acknowledging and capitalizing on perceived advantages, tackling compatibility

issues within the organization, embracing E-supply chain management practices, making investments in a resilient technology infrastructure and IT capabilities, and fostering international marketing competencies.

Limitations

There are certain constraints or restrictions that need to be acknowledged and taken into consideration. Considering its valuable contributions, it is imperative to recognize the limits inherent in the study. The utilization of self-reported data from employees may introduce response biases. Moreover, the study's concentration on the E-commerce industry within the Saudi Arabian context may restrict the applicability of the results to different sectors or geographical areas. In order to achieve a more thorough knowledge, future research endeavours should incorporate varied industries and worldwide contexts into their investigations.

Future Directions

Potential Areas for Further Study: In considering future directions for research, some potential areas emerge as promising avenues for further investigation. Potential areas for future research could involve investigating the moderating elements that exert influence on the found connections, such as organizational size, industry dynamics, or cultural issues. Examining the temporal dynamics of these interactions and investigating their evolution throughout time has the potential to yield significant insights.

Contributions

This endeavour shows a valuable augmentation to the existing academic work by providing empirical evidence that supports the links between crucial criteria and the strategic cross-border e-commerce performance. The establishment of these links serves as a basis for further investigation and provides practitioners with practical knowledge to guide strategic decision-making in the ever-changing and dynamic realm of global e-commerce. The incorporation of formative measures for essential dimensions in the study enhances the methodological robustness of the current research and broadens the comprehension of the complex characteristics of cross-border e-commerce activities.

In summation, recognizing the constraints and effectively addressing them in subsequent studies will contribute to the enhancement of our comprehension regarding the intricate dynamics that impact strategic performance within the global e-commerce sphere.

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