

Users experience, logistic management and market promotion: Basis for cross border e-commerce platform improvement framework

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Abstract

This study aimed to analyze the user experience, logistic management and market promotions of e-commerce businesses as basis for developing an improved e-commerce platform framework. In this study, a descriptive technique was employed to evaluate the variables under investigation and to systematically establish the circumstances. There are 385 research participants' customers of e-commerce businesses in China who are purposively selected. The SPSS program was used to examine the data that was collected through a survey questionnaire. According to the study's findings, there was a moderate degree of agreement among the respondents on the user interface, creative material, and emotional experience. The e-commerce businesses often experience logistics management in terms of logistic visibility, regional supply chain risk management and customer support and after sales service as agreed by the respondents. The e-commerce businesses are practicing promotion activities from the perspectives of target audience positioning, promotion channel strategies, brand building, and communication. There were high significant relationships that exist among user experience, logistics challenges and marketing promotion strategies. An Improved E-commerce platform framework was proposed.

Keywords: e-commerce platform, user experience, logistics challenge, marketing promotion strategies, creative content

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1. Introduction

Cross-border e-commerce platforms facilitate the sale and purchase of goods and services between businesses and consumers in different countries through online marketplaces. They offer a convenient and efficient way allowing consumers to have access to a greater variety of goods and services and for businesses to reach a worldwide audience. By selling to customers in different countries, businesses can increase their sales and revenue. Cross-border e-commerce can assist companies in reaching new customers and increasing brand awareness. Consumers can access a wider range of products and services from around the world through cross-border e-commerce platforms. User experience, logistics challenges and market promotions all play an important role in designing cross-border e-commerce platforms. By carefully considering and addressing these key areas, cross-border e-commerce platforms can provide their users with a seamless and positive experience, overcoming logistics challenges and effectively reaching target audiences in different markets.

E-commerce platforms shall create a positive and engaging user experience that encourages customers to shop more often and spend more money. According to the study of Felix and Rembulan (2023), The online retailer should make sure that its messaging system responds quickly to communications from customers and loads pages quickly. Customer satisfaction will increase and platform activity will be encouraged with a responsive and effective user experience. Reels Video features, affordable food options, vouchers, flash sales, and unique features like reseller programs, are all examples of the following: promotions and discounts, product quality and trust, transaction ease and supporting features, product variety, an appealing and user-friendly user interface, responsive customer support, prompt platform responses, and all important components that contribute to a positive customer experience.

While e-commerce has revolutionized shopping, it has also introduced several complex logistics challenges that platforms need to address effectively. In today's competitive world, these technologies and applications are essential because they allow businesses to provide end-to-end, cross-border solutions with the adaptability to satisfy a wide range of changing client expectations. Prominent corporations recognize the paths taken by their clients and attach great importance to customer experiences, which extend beyond the e-commerce front end system. Thus, a key element of any successful cross-border Front-end system for e-commerce. Therefore, maintaining operational excellence to oversee physical movements in the end-to-end supply chain, or from the origin to the customer site, is a crucial component of any successful cross-border e-commerce offering. For an e-commerce offering platform to be successful, efficient and effective logistics are essential (Bourlakis et al 2018).

Market promotions play a crucial role in attracting customers, driving sales, and building brand awareness within the highly competitive landscape of e-commerce. E-commerce platforms offer unique opportunities to reach a global audience and tailor marketing strategies to specific customer segments. According to Purnomo (2023), companies need to Establish a robust marketing strategy to enhance sales conversion and get a competitive advantage amidst intensifying competition on e-commerce platforms. The results of the study show that using digital marketing strategies is essential to raising sales conversion rates on e-commerce platforms. Businesses may efficiently increase traffic, engagement, and eventually sales conversions on your e-commerce platform by integrating a variety of techniques and tactics.

Although various studies identify the influence of user experience, a gap that can be explored is how this relates to logistics challenges and marketing promotions in an e-commerce set-up. More in-depth research can examine how user experience, consideration of logistics challenges and marketing promotion can work together

in designing an improved e-commerce platform. As different research focus on different facets of these components, this disparity becomes even more noticeable, emphasizing the necessity for an integrated and thorough investigation of these issues. Given this, the purpose of this study is to close this gap and offer practical advice to e-commerce businesses on how to improve their customer experience.

Objectives of the Study - This study aimed to analyze the user experience, logistic management and market promotions of e-commerce businesses as basis for developing an improved e-commerce platform framework. Specifically, this study aimed to describe the user experience of cross-border e-commerce platforms from aspects such as user interface, content quality, and emotional experience; assess logistics management, including logistics visibility, regional supply chain risk management, customer support, and after-sales service; and evaluate market promotion activities from the perspectives of target audience positioning, promotion channel strategies, brand building, and communication. It also tested the significant relationships among user experience, logistics challenges, and market promotion activities of cross-border e-commerce platforms. It proposed a framework for improving the framework of cross-border e-commerce platforms.

2. Methods

Research Design - In order to methodically characterize the population, specify the circumstances, and evaluate the user experience, logistical management, and market development initiatives of Chinese e-commerce enterprises, a descriptive technique was employed in this study. According to Al-Sheikh Hassan (2023), a descriptive research design is a type of research methodology that aims to describe or document the characteristics, actions, attitudes, beliefs, or viewpoints of a group or population that is the topic of the study. Descriptive research does not aim to forecast the future or establish cause-and-effect relationships between variables. Instead, it focuses on providing a complete and accurate representation of the data collected, which may be useful in developing hypotheses, looking for patterns, and identifying trends. Regression analysis or correlation analysis can be produced by designing correlational research to be either relational or predictive. A survey questionnaire that the researcher created and had its validity and reliability confirmed was used to gather the primary data. To collect data, online questionnaire distribution software was utilized to disseminate the questionnaires to respondents in China. These respondents completed the questionnaires and returned them over the same channel. Using the appropriate statistical techniques in SPSS version 28, data on the weighted mean, standard deviation, and correlations were collected for the statistical study.

Participants of the Study - The study participants are clients of Chinese e-commerce companies. A total of 385 people took part in the survey.

Data Gathering Instrument - The majority of the data was gathered via survey questions. This was done in order to find out how consumers felt about online retailers. To create the questionnaire statements, the researchers carried out a thorough investigation of the study factors and dimensions. Professionals in the field and the researcher's mentor both provided complete validation. In the first part of the questionnaire, the researcher determined the user experience on e-commerce platform. The second part is about analyzing the logistic challenges. The activities related to market promotion were assessed in the final section. In this study, bank customers' attitudes toward the relevant topics were investigated using the Likert scale. "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree" were the options available on the four-point Likert scale. The options had weights ranging from 1 to 4, with 1 denoting the lowest level of disagreement and 4 the highest level of agreement (Strongly Agree). The Likert Scale for this study has four grading categories: 1.5-2.49 for disagreeing, 2.5-3.49 for agreeing, 3.5-4 for strongly agreeing, and 1.00-1.49 for strongly disagreeing.

In order to assure the authenticity and dependability of the research content and output, the researcher conferred with the school adviser. All of the adviser's and panel's remarks and recommendations will be integrated into the study. The Cronbach Alpha test was used to assess the questionnaire's reliability. To do this, data from a minimum of twenty respondents was gathered in order to evaluate the quality, acceptability, and

excellence of the survey questions. The dependability values for Cronbach's alpha were tabulated together with the subsequent scores and interpretations.

Reliability Test Result

Summary

Indicator	Cronbach Alpha	Remarks
Cross border e-commerce platforms user interface	0.851	Excellent
Content Quality	0.787	Good
Emotional Experience	0.868	Excellent
Logistics visibility	0.769	Good
Regional Supply Chain Risk Management	0.797	Good
Customer Support and After Sales	0.752	Good
Target audience positioning	0.701	Good
Promotion channel strategy	0.831	Excellent
Brand building and communication	0.814	Excellent

*George and Malley (2003) provide the following rules of thumb
 ">0.90 – Excellent, >0.80 – Good, >0.7 – Acceptable, >0.60 – Questionable,
 >0.50 – Poor, and <0.50 – Unacceptable"*

Data Gathering Procedure - After taking the research advisor's suggestions and observations Chinese into consideration, the filled questionnaire was utilized by the researcher to collect data. Following the successful completion of the reliability test, the responses were encoded and given to the participants. internet platform for the distribution of questionnaires. Before sending out the questionnaire, the researcher formally requested permission to perform the customer perception study in a letter addressed to the management of the chosen and involved organizations. More importantly, authorization from the consumers must be secured before they can participate in the survey. The researcher compiled, assessed, and analyzed the data that were acquired.

Ethical Considerations - Ethical considerations were taken into account at every stage of the research process to guarantee that any data acquired is utilized only for research, maintaining the integrity and efficacy of the study. The researcher's financial security, discretion, or personal interests were not compromised right away. Prior to the election, the required permits were acquired. The objectives of the study were explained to the participants. They received guarantees that the study would only be used for academic purposes and would not jeopardize their privacy or safety. In order to make sure that the intended respondents are willing to respond to the study questions, the researcher additionally requests consent from the customer respondents via letter and correspondence. By not requesting respondents' names when they completed the questionnaires, it also safeguarded their identity and confidentiality. Furthermore, the investigator will ensure that participants provide their responses voluntarily and in line with their personal preferences. Ultimately, it ensured that research participants are safe and secure and that no harm or injury will occur to them.

Data Analysis - The first three goals were represented by weighted mean and rank. All variables had p-values of less than 0.05 according to the Shapiro-Wilk Test, suggesting that the data set was not normally distributed. Consequently, one of the non-parametric tests to ascertain the significant relationship was Spearman rho. SPSS version 28 was used for all of the analyses.

3. Results and discussion

Table 1 shows the assessment on the perception of the customers on user experience in terms of user interface, emotional experience and content quality. It has a grand composite mean of 2.91 with a verbal interpretation of agree. This implies that the companies are manifesting these factors contributing to remarkable

user experience. The table shows that the user interface has the highest assessed indication (2.92 composite mean), followed by emotional experience (2.91 composite mean) and content quality (2.90 composite mean). User experience (UX) is paramount in the world of e-commerce platforms. It encompasses every interaction a user has with the platform, from the moment they land on the homepage to the final checkout and beyond. A positive UX can turn visitors into loyal customers, while a negative one can send them running to your competitors.

Table 1

User Experience of Cross-border E-commerce Platform

Key Result Areas	Composite Mean	VI	Rank
User Interface	2.93	Agree	1
Content Quality	2.90	Agree	3
Emotional Experience	2.91	Agree	2
Grand Composite Mean	2.91	Agree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

This finding supports the result of the study conducted by Kumar (2023), the focus is on the significant impact that improving ecommerce user experience can have on online store revenue without necessarily increasing traffic. It highlights that effective ecommerce UX goes beyond visual design, encompassing communication, accommodation, and guidance throughout the entire buyer's journey, from the initial click to the final purchase. Ecommerce UX involves website design, navigation optimization, search functionality enhancement, and streamlining the checkout process to anticipate customer needs. The ultimate goal is to reduce user friction, thereby increasing engagement and, consequently, boosting sales. Daniel Patricio, founder of Bull and Cleaver, a successful small-batch snack ecommerce company, challenges the common misconception that a homepage is the starting point for users' experiences. He emphasizes that users may land on various pages such as product pages or blog posts, highlighting the importance of understanding diverse entry points for users on the site. Patricio notes that in the case of Bull and Cleaver, the top two visited pages are a blog post about the differences between biltong and beef jerky and a product page linked to some of their advertisements.

Table 2

Logistics Management

Indicators	Weighted Mean	Verbal Interpretation	Rank
Logistics Visibility	2.91	Agree	1.5
Regional Supply Chain Risk Management	2.89	Agree	3
Customer Support and After-sales Service	2.91	Agree	1.5
Composite Mean	2.90	Agree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 2 shows the assessment of logistics management in terms of visibility, regional supply chain risk management, customer assistance, and after-sales service. The grand composite mean of 2.90 indicates that respondents agree that e-commerce enterprises practice proper logistics management. According to the table, the highest graded factors are logistics visibility, customer assistance, and after-sales services, both with a composite mean of 2.91. This is followed by regional supply chain risk management, with a composite mean of 2.89, indicating that respondents agree.

Through effective management of these dimensions (visibility, regional supply chain risk management and customer support and after-sales service), e-commerce businesses can achieve efficient order fulfillment, timely deliveries, and a positive customer experience, leading to increased sales, brand loyalty, and competitive advantage. Continuous improvement and adapting to the evolving e-commerce landscape are key to success in logistics management. Logistics has altered dramatically over the last few decades because of E-commerce's rapid growth and widespread influence. Information Technology plays a key role in improving supply chain

management's effectiveness and efficiency. Future technologies such as the Internet of Things (IoT), Big Data Analytics, and Cloud Computing may be utilized to improve E-commerce logistics at the system, operational, and decision-making levels in the next decade, potentially making them real-time and intelligent (Yu, et al, 2016).

Table 3*Market Promotion Activities*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Target Audience Positioning	2.91	Agree	1.5
Promotion Channel Strategies	2.91	Agree	1.5
Brand Building and Communication	2.88	Agree	3
Composite Mean	2.90	Agree	

Key Result Areas Composite Mean VI Rank Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 2 shows the evaluation of market promotion operations in terms of target audience positioning, promotion channel strategies, brand creation, and communication. The data shows that target audience positioning and promotion channel strategies have the highest assessed indicators, with a composite mean of 2.91. Brand building and communication come in second with a composite mean of 2.88.

There are innumerable companies fighting for the attentions of customers in the fiercely competitive e-commerce market. There are innumerable companies fighting for the attention of customers in the fiercely competitive e-commerce market. Effective market promotion helps reach target audience and stand out from the crowd. Promotion activities like advertising, content marketing, and social media engagement attract new visitors to e-commerce platform. Consistent and targeted promotion helps establish brand identity and make it recognizable within the target market. By investing in effective promotions, e-commerce Businesses can accomplish their objectives by connecting with their target market, increasing brand recognition, increasing traffic, and boosting sales. However; Liu et al., (2022) indicated that an excessive reliance on promotional activities may result in diminishing returns, as consumers become desensitized to marketing messages. This finding highlights the potential downside of overusing promotional strategies, suggesting that a saturation of marketing content could lead to reduced effectiveness and engagement from the target audience. The study implies the importance of balance and strategic planning in marketing efforts to avoid the risk of diminishing returns due to consumer desensitization.

In table 4, the computed rho-values, which range from 0.735 to 0.792, show a significant direct correlation between the user experience and logistics problems. The obtained p-values were less than 0.01, there was a statistically significant association between logistics management and user experience. Prompt deliveries lead to customer satisfaction and a positive perception of the brand. Delays and frustrations caused by poor logistics management negatively impact UX. Delivering the correct items in good condition builds trust and satisfaction. Errors and damaged products due to inefficient logistics create a negative UX. Moreover, transparency and visibility into the delivery process through order tracking features enhance user experience and reduce anxiety. A regional supply chain can significantly increase the speed at which products can be delivered. By establishing warehouses and distribution centers close to target markets, businesses are able to respond faster to orders and reduce transit times. Fast and reliable delivery can dramatically improve the user experience and meet user expectations for timeliness and reliability.

Kache and Seuring, S. (2017) explore the challenges and opportunities of big data analytics and IoT technologies in supply chain management. Through a systematic literature review, the article shows how these technologies can improve the user experience by improving transparency and data sharing to optimize all parts of the supply chain. The review also points out future research directions, including how to deal with the complexity and data security issues brought about by technology integration.

Table 4*Relationship Between User Experience and Logistics Management*

Variables	Rho	p-value	Interpretation
User Interface			
Logistics Visibility	0.736**	<.001	Highly Significant
Regional Supply Chain Risk Management	0.782**	<.001	Highly Significant
Customer Support and After-sales Service	0.784**	<.001	Highly Significant
Content Quality			
Logistics Visibility	0.736**	<.001	Highly Significant
Regional Supply Chain Risk Management	0.792**	<.001	Highly Significant
Customer Support and After-sales Service	0.735**	<.001	Highly Significant
Emotional Experience			
Logistics Visibility	0.737**	<.001	Highly Significant
Regional Supply Chain Risk Management	0.768**	<.001	Highly Significant
Customer Support and After-sales Service	0.735**	<.001	Highly Significant

Legend: Significant at p -value < 0.01

These literature reviews demonstrate the profound correlation between user experience and logistics management, highlighting the critical role of technological advancements in improving logistics efficiency and user satisfaction. Through continuous optimization and innovation, companies are able to maintain an edge in a highly competitive market.

Table 5*Relationship Between User Experience and Market Promotion Activities*

Variables	Rho	p-value	Interpretation
User Interface			
Target Audience Positioning	0.782**	<.001	Highly Significant
Promotion Channel Strategies	0.785**	<.001	Highly Significant
Brand Building and Communication	0.771**	<.001	Highly Significant
Content Quality			
Target Audience Positioning	0.752**	<.001	Highly Significant
Promotion Channel Strategies	0.716**	<.001	Highly Significant
Brand Building and Communication	0.729**	<.001	Highly Significant
Emotional Experience			
Target Audience Positioning	0.765**	<.001	Highly Significant
Promotion Channel Strategies	0.741**	<.001	Highly Significant
Brand Building and Communication	0.763**	<.001	Highly Significant

Legend: Significant at p -value < 0.01

The user experience and market promotion activities sub-variables have a strong direct link, as indicated by the estimated rho-values in the table 5, which vary from 0.716 to 0.785. There was a statistically significant correlation between market promotion efforts and user experience because the computed p-values were less than 0.01. Effective marketing activities set clear expectations about product features, delivery timelines, and return policies, reducing confusion and frustration for users. Market promotion activities can significantly impact the user experience in e-commerce. By focusing on transparency, personalization, clear communication, and building trust, e-commerce businesses can leverage marketing to enhance UX, improve customer satisfaction, and ultimately drive business success. Well-crafted promotions personalized to user preferences and purchase history enhance the browsing experience and increase the likelihood of finding relevant products. Honest and transparent marketing builds trust with potential customers, making them feel more comfortable interacting with the brand and engaging with the website.

The study of Felix & Rembulan (2023) has determined the elements that impact customer engagement, customer loyalty, and the consumer experience when utilizing an e-commerce company's platform. A positive customer experience can be attributed to a number of factors, including promotions and discounts, product quality and trust, transaction ease and supporting features, product variety, an attractive and user-friendly user interface, responsive customer support, quick platform responses, reseller programs, and unique features like

flash sales, vouchers, affordable food options, and Reels Video features.

Table 6

Relationship Between Logistics Management and Market Promotion Activities

Variables	Rho	p-value	Interpretation
Logistics Visibility			
Target Audience Positioning	0.753**	<.001	Highly Significant
Promotion Channel Strategies	0.704**	<.001	Highly Significant
Brand Building and Communication	0.730**	<.001	Highly Significant
Regional Supply Chain Risk Management			
Target Audience Positioning	0.759**	<.001	Highly Significant
Promotion Channel Strategies	0.748**	<.001	Highly Significant
Brand Building and Communication	0.732**	<.001	Highly Significant
Customer Support and After-sales Service			
Target Audience Positioning	0.744**	<.001	Highly Significant
Promotion Channel Strategies	0.747**	<.001	Highly Significant
Brand Building and Communication	0.722**	<.001	Highly Significant

Legend: Significant at p-value < 0.01

The estimated rho-values, which range from 0.704 to 0.759 in the table, show a highly direct correlation between the logistics problems and market promotion activities. The resulting p-values were less than 0.01, there was a statistically significant association between market promotion activities and logistical management. Bolton et al., (2018) explores the complex interplay of digital, physical, and social environments in shaping the customer experience. The authors highlight how combining digital marketing strategies with traditional physical interactions can improve overall customer satisfaction and loyalty. They emphasized the importance of a seamless omnichannel approach in delivering a consistent and positive user experience across different touchpoints.

These two dimensions are interconnected and interdependent, playing crucial roles in influencing customer decisions and overall business success. Effective marketing can highlight efficient logistics practices, such as fast delivery times or guaranteed next-day shipping, to attract customers who value prompt deliveries. Highlighting hassle-free return policies and processes through marketing campaigns can incentivize purchases by reducing customer concerns about wrong or unwanted items. Marketing campaigns can leverage the availability of order tracking features to showcase transparency and build trust, creating a positive perception of logistics efficiency. Marketing can highlight unique logistics offerings like same-day delivery, click-and-collect options, or international shipping to attract customers seeking specific fulfillment needs.

The longitudinal study conducted by Veal (2023) identified a robust correlation between well-executed digital marketing campaigns and short-term increases in sales. The research highlighted the immediate impact of effective digital marketing efforts on boosting sales figures. However, the study also underscored the importance of sustained success, noting that maintaining increased sales over the long term necessitates consistent and evolving promotional strategies. This insight emphasizes the dynamic nature of digital marketing and the need for businesses to adapt and refine their approaches to ensure prolonged success in the competitive landscape.

4. Conclusions and recommendations

The study's findings led that the user interface, creative content, and emotional experience, the respondents agreed on a modest level. The e-commerce businesses often practice logistics management in terms of logistic visibility, regional supply chain risk management and customer support and after sales service as agreed by the respondents. The e-commerce businesses are practicing promotion activities from the perspectives of target audience positioning, promotion channel strategies, brand building, and communication. The user experience, logistics difficulties, and marketing promotion techniques all have quite significant links. An Improved E-commerce platform framework was proposed. E-commerce businesses may personalize the user experience by recommend products based on user browsing history and preferences. Top management may implement systems

for tracking shipments in real-time, providing customer updates and supply chain visibility. E-commerce companies may use the suggested framework to enhance their platform. Future researchers may use other dimensions of e-commerce platform improvement such as analytics and data-driven decision and technology and infrastructure.

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