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Content Details:

I ing ling I hiversity	Research on the Key Factors of Consumer Preference on E-Commerce Platforms in Taiwan by Using Analytic Hierarchy Process
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Abstract

This research aims to understand which factors do the Taiwanese consumers prefer when using ecommerce platforms. E-commerce is Taiwan had been developed during the 21th century and currently contributed a significant portion of GDP. Some factors, including perception, motivation, user experience, social influence, cultural value, social-economic, price sensitivity, product availability, service quality, brand popularity, innovation and feature, advertising and promotion, time constraints, geographic location, online reviews and ratings, customization, social media influence, and post-purchase service, as suggested by the scholars, are examined by Analytic Hierarchy Process in this research. The result shows that user experience, time constraints, product availability, service quality, customization, and brand popularity are the most preferred factors for using e-commerce platforms.

Key words: consumer preference, e-commerce, analytic hierarchy process





Introduction

Research Background

E-commerce in Taiwan has experienced significant growth since the 21th century, driven by rapid technological advancements, increasing internet penetration, and changing consumer behaviors. As a highly developed economy with a robust technological infrastructure, Taiwan serves as a unique case study for examining the evolution and impact of e-commerce (Fan & Chang, 2007).

According to Taiwan Internet Report (2022), Taiwan's e-commerce journey began in the late 1990s, following the expansion of the Internet and computing technologies. Early adopters included large retailers and specialized marketplaces. The market gained momentum in the early 2000s when online shopping platforms began to emerge, leading to increased consumer trust and adoption.

The proliferation of smartphones and accessible internet has literally put online shopping at consumers' fingertips. With a smartphone penetration rate exceeding 80%, mobile commerce is becoming a key segment of the market (Taiwan Internet Report, 2022).

The Taiwanese government has supported e-commerce growth through various policies aimed at enhancing digital infrastructure and promoting online business practices. Initiatives like the "Digital Nation and Innovative Economic Development (DNI)" plan aim to improve digital competencies across various sectors (Tsai, 2015). As of 2023, Taiwan's e-commerce market is marked by the presence of both domestic and international players. Major local platforms such as PChome, Momo, and Shopee cater to diverse consumer needs (Taiwan Internet Report, 2022). There is also a growing trend of multinational e-commerce, with Taiwanese consumers increasingly purchasing from overseas websites.

Research Purpose

The purpose of this research is to analyze the current landscape of e-commerce in Taiwan, identifying key factors that contribute to its growth and development. This study aims to explore the dynamics of consumer behavior, technological advancements, and market trends, as well as the challenges faced by businesses within the e-commerce sectors: assess consumer preference, evaluate market trends, and examine technological innovations.





Literature Review

Consumer preference on e-commerce include the patterns and choices consumers make when deciding between different goods, services, or brands in the platform. These preferences are shaped by a wide range of factors, both internal and external.

Internal Factors

This section summarizes the key internal factors that can influence the usage of e-commerce:

- Perception: How consumers perceive a product's quality, value, or attributes based on personal experiences, advertising, or word of mouth (Jagtiani & John, 2018).
- Motivation: Consumers are motivated by needs, which can range from basic needs to more complex desires (Jagtiani & John, 2018).
- User Experience: Past experiences with products or services shape future choices. For
 example, a positive experience with a brand will lead to repeat purchases (Hennig-Thurau
 et al., 2004).
- Social Influence: Peer pressure, family, and social networks can influence consumer preferences. For example, consumers may prefer a certain fashion brand or electronic device because it's popular among their social circle (Zeithaml, 1988; Jagtiani & John, 2018).
- Cultural Values: The culture in which an individual is raised plays a crucial role in shaping preferences. For instance, in some cultures, consumers might prefer locally sourced products, while others might gravitate toward international or luxury brands (Hennig-Thurau et al., 2004).
- Social-Economic Status: Economic status often dictates preferences. High-income consumers may lean toward premium, high-quality products, while price-sensitive consumers may prefer valuefor-money options (Zeithaml, 1988).
- Price Sensitivity: Consumer preferences are often affected by price. Some may prefer high-end, expensive products, while others might choose more affordable alternatives based on their budget constraints (Zeithaml, 1988; 2000).



External Factors

Below summarizes some external factors may influence the selection of e-commerce.

- Product Availability: The ease of access and availability of products, especially in relation to demand and supply, can shape consumer choice (Zeithaml, 2000; Fan & Chang, 2007).
- Service Quality: Consumers generally prefer service that offer higher quality or better performance. For instance, durability, effectiveness, or convenience are key quality factors that drive preference (Zeithaml, 1988; 2000).
- Brand Popularity: Some consumers consistently prefer products from specific brands due to previous positive experiences, trust in the brand, or emotional attachment (Lin, 2007).
- Innovation and Features: New features, advanced technology, or unique designs can make a product more attractive to consumers who value innovation (Schneider, 2006).
- Advertising and Promotion: Effective marketing campaigns can shape or alter consumer preferences. The use of persuasive messaging, celebrity endorsements, or product placements can make certain brands or products more desirable (Schneider, 2006; Hennig-Thurau et al., 2004).
- Time Constraints: A consumer may prefer convenience, like ready-to-eat meals or online shopping, when they are pressed for time (Huizingh & Hoekstra, 2003).
- Geographic Location: Preferences can vary by region or country, influenced by local tastes, climate, or regional availability of products (Lin, 2007; Fan & Chang, 2007).
- Online Reviews and Ratings: With the rise of e-commerce, consumer preferences are
 often shaped by the opinions of other buyers through online reviews and ratings (Jagtiani
 & John, 2018).
- Customization: The ability to personalize or customize products can influence preferences
- (Schneider, 2006; Lin, 2007).
- Social Media Influence: Social media platforms have become powerful tools in shaping consumer preference by promoting trends, influencer partnerships, and direct consumer





engagement (Schneider, 2006; Jagtiani & John, 2018).

 Post-Purchase Service: Consumers assess their satisfaction with the product post-purchase, which influences future preferences and the likelihood of repeat purchases or brand loyalty (Huizingh & Hoekstra, 2003).

Consumer preferences are complex and dynamic, influenced by a combination of personal, social, economic, and situational factors. Marketers and businesses closely study these preferences to predict demand, create effective advertising campaigns, and design products that resonate with target audiences. Understanding consumer preference is crucial for companies seeking to gain a competitive edge and foster long-term customer loyalty.

Research Methodology

This research conducts surveys which had been delivered to 300 samples by simple random sampling method across Taiwan. 256 of surveys have been collected and 248 are valid, so the valid rate is 82.67%. The surveys questions referred to the indicator listed from the literature review. Next, this research conducted the Analytical Hierarchy Process (AHP) to analyze the data to prioritize which factors are considered as the most essential for Taiwanese to use e-commerce. AHP allows numbers to represent uncertain or imprecise information, making it more suitable for real-world scenarios where human perceptions and evaluations are often not exact (Saaty, 1980). In addition, the categories can represent the value of weights that indicate priority (Saaty, 1980).

In AHP, decision-makers express their preferences using linguistic terms including "Equal

Preference" as 1, "Moderate Preference" as 3, "Strong Preference" as 5, "Very Strong Preference" as 7, "Absolute Preference" as 9, and the other numbers (2, 4, 6, 8) are intermediate values. These fuzzy numbers allow the decision-making process to account for the inherent uncertainty in human judgment. The process begins by constructing a pairwise comparison matrix for the criteria and alternatives, which reflects how one element compares to another in terms of importance or preference. Next, these fuzzy comparisons are processed through a series of mathematical operations to derive fuzzy weights for each criterion and alternative (Saaty, 1980).

AHP is particularly useful when dealing with complex decision-making problems where data is uncertain or subjective, allowing for a more realistic representation of human judgment (Saaty, 1980). This makes AHP applicable in various fields, such as project selection, risk assessment, supplier evaluation, and environmental planning. Despite its advantages, AHP also introduces complexities, as it requires more sophisticated calculations and expert input, which can be computationally intensive. Nonetheless, its ability to incorporate decision-making tool in scenarios where precision is difficult to achieve (Saaty, 1980).





Research Result

According to the analysis from the survey, the descriptive analysis of survey respondents and survey result are shown below: Table 4.1

Descriptive Analysis of Survey Respondents

Category	Sub-Category	Number of Respondents
		(with %)
Gender	Male	110 (44.35%)
	Female	138 (55.65%)
Age	15-25	46 (18.55%)
1.184	110 20	(10,000,0)
	26-35	35 (14.11%)
	36-45	56 (22.58%)
	46-55	60 (24.19%)
	56-65	30 (12.10%)
	Above 65	21 (8.47%)
Education	Middle school or	22 (8.87%)
	below	
	High school	46 (18.55%)
	Bachelor degree	115 (46.37%)
	Masters' degree or	65 (26.21%)
	above	
Region	Northern Taiwan	98 (39.52%)
	Central Taiwan	67 (27.02%)
	Southern Taiwan	51 (20.56%)
	Eastern Taiwan	32 (12.90%)

Table 4.2

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AHP Result for All Factors that affect E-Commerce Platforms Preference

AHP Result for All Factors the Consumer Preference on	Relative Priorities	Ranking of Preference
E-		
Commerce Platforms		
User Experience	0.13	1
Time Constraints	0.11	2
Product Availability	0.10	3
Service Quality	0.09	4
Customization	0.08	5
Brand Popularity	0.08	6
Price Sensitivity	0.07	7
Innovation and Features	0.06	8
Perception	0.05	9
Motivation	0.04	10
Post-Purchase Service	0.04	11
Advertising and	0.04	12
Promotion Online Reviews and Ratings	0.04	13
Social-Economic Status	0.03	14
Geographic Location	0.01	15
Social Influence	0.01	16
Cultural Values	0.01	17
Social Media Influence	0.01	18

The result shows that many external factors (time constraints, product availability, service

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quality, customization, brand popularity, and innovation and features) with some internal factors (user experience, price sensitivity, and perception) are the main preference for Taiwanese consumers to use e-commerce platforms.

Conclusion

In summary, Taiwanese consumers view the functions are more important than internal feelings in terms of using e-commerce platforms. The research result implies the e-commerce platforms should focus on improving their features in order to provide better user experience. With better user experience, consumers will be more likely to continue using the platforms. Advertising or social media might not as helpful as the features themselves in terms of keeping consumers because these only promote the platforms but does not enhance features to satisfy user demands. Taiwanese consumers tend to experience the platforms themselves because each of them has different needs. Taiwanese consumers are considered as utilitarianism in terms of e-commerce usage since they will have strong loyalty to the platforms when they find convenience. Therefore, as this research suggests, continuous upgrades for platform features should be the primary priority for Taiwanese e-commerce companies.







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Influence of Peer Networks on F-Commerce Success: A Study on Digital Entrepreneurs in Bangladesh

Abstract

The rapid growth of digital entrepreneurship in Bangladesh has been significantly encouraged by the rise of Facebook Commerce (F-Commerce) by connecting small-scale entrepreneurs with their consumers. Hence, many small-scale entrepreneurs of Bangladesh leverage social media platforms like Facebook to establish and expand their businesses. Hence, there is a paramount importance peer networks in this business that encompasses both formal and informal connections and plays a pivotal role in shaping the success of this business. Drawing on social network theory and entrepreneurial ecosystem frameworks, this study explores how peer networks comprising fellow entrepreneurs, mentors, and community groups impact key success metrics such as customer acquisition, brand visibility, and sales growth of the business. This study also explores how peer network influence affects the growth and sustainability of F-commerce businesses in this sector. It examines factors such as knowledge sharing, social capital, collaborative marketing efforts, and trust-building within these networks. This study employs mixed-methods, combining surveys of 250 F-commerce small-scale entrepreneurs with a structured questionnaire. The results identified the critical role of peer network influence in fostering the resilience and scalability of digital businesses. Findings revealed that peer networks significantly enhance business performance through knowledge sharing, access to resources, and emotional support. Entrepreneurs with strong peer connections demonstrate higher adaptability to market dynamics. improved customer engagement strategies, and more frequent use of collaborative marketing efforts. It also highlighted that strong peer networks enable entrepreneurs to access critical resources, including market insights and technological know-how. Furthermore, peer recommendations and endorsements on social media amplify business visibility and credibility, fostering customers' trust. The study also addressed challenges, such as competitive pressures and the risk of misinformation, which can undermine the benefits of network interactions. By analyzing primary data collected from small-scale F-commerce entrepreneurs through surveys and interviews, this study underscores the strategic importance of cultivating strong peer networks to thrive in a competitive digital marketplace. The findings provide actionable insights for policymakers, digital platform developers, and entrepreneurs aiming to maximize the potential of F-Commerce in this industry. The paper concludes with recommendations for policy interventions, such as structured peer network development programs, to support F-commerce entrepreneurs in emerging economies like Bangladesh. This research contributes to the growing discourse on digital entrepreneurship and the socio-economic potentials of F-commerce in a developing country like Bangladesh.

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Keywords: Digital Entrepreneurs, F-Commerce, Peer Networks, Technological Know-How, Customer Engagement Strategies.

The Effect of Intra Industry Trade on Co2 and Eco Innovation Across Eurozone Countries

Abstract

There is an alarming concern about climate change globally among nations. These perhaps sudden climatic changes are due to several human industrial activities that use immense energy input and lead to indiscriminate release of gaseous pollutants such as CO2, which is hazardous to human survival. Several industrial trade sectors enhance the already extraneous release of carbon gas into the atmosphere. This makes it imperative to study how these factors affect environmental pollution. The recent attempts to improve green, sustainable atmospheric conditions make research on environmental pollution, specifically CO2, a vital topic for scholars worldwide. The studies on intra-industry trade and its effects on CO2 are also necessary for countries to strategize and employ calculated techniques to help them maintain a green environment while maximizing their intra-industry trade profit.

Therefore, the primary purpose of this research is to estimate the effect of trade operations, especially intra-industry trade, on carbon dioxide emissions among countries in the Eurozone, looks at the intra-industry trade among countries in the eurozone and the impact it has on environmental pollution, specifically CO2, estimates the impact of the intra-industry trade variables namely; intra-industry trade in food, intra-industry trade in agricultural raw materials, intra-industry trade in fuel, intra-industry trade in ores and metals and intra-industry trade in manufactured goods on eco-innovation and investigates the impact of the United Nations' global compact on migration as a policy shock on CO2 among countries in the eurozone.

The study obtained and analyzed intra-industry trade data from 19 countries in the eurozone within the period 2000-2020. The Grubel-Loyd index was used to calculate the intra-industry trade score ranging from 0 to 1. CO2, PGDP, and intra-industry trade data were obtained from the World Development Index data from the world bank. Using the stepwise generalized method of moment regression as a dynamic estimator, intra-industry trade in food, intra-industry trade in agricultural raw materials, intra-industry trade in fuel, intra-industry trade in manufactured goods, intra-industry trade in ores and metals were estimated as determinants of CO2. The result indicated that per capita gross domestic product and population had a significant positive relationship with CO2. Additionally, intra-industry trade in food, intra-industry trade in fuel as





well as intra-industry trade in ores and metals negatively influences CO2 emissions, while intra-industry trade in agricultural raw materials and intra-industry trade in manufactured goods, positively affected CO2. The quantile regression result indicated that intra-industry trade in agricultural raw materials strongly affected CO2 at the lower quintiles, while per capita gross domestic product and intra-industry trade in fuel significantly affected CO2 at all quintiles.

The results obtained indicated that the global compact on migration reduced carbon dioxide emissions among countries within the eurozone who signed the agreement when compared to countries that did not join the agreement. To determine the possible causes of this effect, the study introduced intra-industry trade in agricultural raw materials, food, ores and metals, manufactured goods, arms and ammunition, fuel, per capita gross domestic product, and population to estimate the treatment effect on CO2. The results showed that the intra-industry trade variables' effect on CO2 was reduced among the countries that joined the compact compared to countries that did not.

Key words: Intra-Industry trade, Carbon emission, eco-innovation, Global Compact on Migration









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