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E-COMMERCE PARTICIPATION: ASSESSING E-COMMERCE SKILLS AND KNOWLEDGE AMONG B40 GROUP IN SELANGOR

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Abstract:

This study examines the e-commerce skills and knowledge possessed by the B40 group in Selangor and their participation in e-commerce. Using primary data, a questionnaire was distributed in 2023 to both e-commerce and non-e-commerce sellers in Selangor, yielding 162 valid responses. The findings identify five key skills associated with e-commerce participation: IT skills, digital marketing skills, entrepreneurial skills, financial management and accounting skills, and English language skills. These insights highlight the need for government-led e-commerce training programs to enhance the B40 group's skills and improve their income opportunities.

Keywords:

B40, E-commerce, Skills and Knowledge, Urban, Selangor

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Introduction

E-commerce, or online business, is a modern method of buying and selling products and services via the Internet. It encompasses acquiring, trading, and exchanging goods, services, or information through computer networks, primarily the Internet (Turban et al., 2008, p. 4). E-commerce has significantly transformed global shopping and business practices, and Malaysia is no exception.

The Malaysian government has actively promoted e-commerce through various initiatives, including regulatory frameworks and incentives to encourage small and medium-sized enterprises (SMEs) to embrace digital commerce. The Covid-19 pandemic further accelerated e-commerce adoption, as consumers turned to online shopping during lockdowns. Notably, Malaysia ranked as the third fastest-growing country for e-commerce sales in 2023 (Statista, 2025).

The surge in e-commerce activities is reflected in Malaysia's revenue figures. According to the Department of Statistics Malaysia (DOSM), e-commerce revenue grew by 4% to RM918.2 billion in the first nine months of 2024, with the highest surge recorded in the second quarter at RM309.8 billion. Additionally, DOSM's data on ICT and e-commerce usage by establishments in 2022 suggests a projected compound annual growth rate (CAGR) of 13.26% from 2023 to 2027, with the market expected to reach US$14.40 billion by 2027. Statista further predicts Malaysia's e-commerce revenue will reach US$9.28 billion in 2025.

Selangor, one of Malaysia's most urbanized states, recorded a median household income of RM9,983 in 2022. To support SME digitalization, the state government has introduced strategic initiatives such as the Digital Workforce Management Digitization Program for SMEs (PRODUTK) and the Selangor E-Bazar initiative. These programs are particularly beneficial in enhancing the economic status of the B40 group in urban areas. The B40 group refers to the bottom 40% of household incomes in Malaysia and is further categorized into four subgroups: B1 (households earning less than RM2,500), B2 (RM2,501 – RM3,169), B3 (RM3,170 – RM3,969), and B4 (RM3,970 – RM4,849). E-commerce participation is expected to play a crucial role in improving the income levels of the B40 group in Selangor.

Nevertheless, e-commerce adoption presents several challenges, including the need for management support, technical proficiency, digital literacy, partner collaboration, and security concerns. Existing research highlights the importance of information technology (IT) skills, digital literacy, and language proficiency as critical factors influencing e-commerce adoption (Lertwongsatien et al., 2003; Huang et al., 2020; Ariansyah et al., 2021; Garín-Muñoz et al., 2019; Pérez-Amaral, 2020).

This raises an important question: What e-commerce skills and knowledge do the B40 group in Selangor possess that may influence their participation in e-commerce? Therefore, this study aims to explore the e-commerce skills and knowledge of the B40 group in Selangor through a survey targeting both e-commerce sellers and non-sellers. The empirical findings will provide valuable insights into the key skills and knowledge that shape e-commerce participation. This study complements ongoing government and institutional efforts to promote e-commerce and

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digitalization among Malaysia's B40 group, ultimately enhancing their income and economic opportunities.

Literature Review

Over the years, the adoption of e-commerce has presented various challenges. Early studies, such as Heung et al. (2003), identified key barriers, including a lack of management support, insufficient e-commerce knowledge, technical issues, partner-related difficulties, and security concerns. These findings underscore the critical role of skills and knowledge in facilitating a successful e-commerce transition. Subsequent research by Lertwongsatien et al. (2003) and more recent studies by Garín-Muñoz et al. (2019), Huang et al. (2020), Pérez-Amaral (2020), and Ariansyah et al. (2021) reaffirm the importance of IT skills, digital literacy, and language proficiency in enhancing e-commerce readiness.

Ahmad and Siraj (2018) further emphasize that skills and knowledge—particularly among top management and business leaders—are key drivers of e-commerce adoption at both individual and organizational levels. Additionally, external factors, such as government and technology vendor support, facilitate knowledge transfer and resource accessibility, thereby strengthening e-commerce readiness. In China, Lin et al. (2021) highlight the influence of cognitive factors and social networks in encouraging e-commerce participation among lower-income households, underscoring the role of knowledge and community support. Similarly, Achmad (2023) in Indonesia stresses that digital literacy and technical skills are essential for the successful implementation of e-commerce in micro, small, and medium enterprises (MSMEs).

Recent findings further support the strong link between knowledge and e-commerce participation. A study by Mohd Noor et al. (2024) examines the relationship between entrepreneurial knowledge and women's involvement in e-commerce in Malaysia, confirming a positive relationship between the two. Their findings suggest that enhancing entrepreneurial knowledge can significantly increase women's participation in e-commerce ventures, reinforcing the idea that knowledge remains a crucial enabler of digital business success.

Education and training also play a crucial role in overcoming e-commerce adoption barriers. Ganoune et al. (2023) emphasize the need for tailored training programs to support illiterate cooperative members in acquiring essential e-commerce skills. Likewise, Hossain et al. (2023) highlight the importance of addressing skill gaps in data management, technology utilization, and digital literacy to enhance SME productivity, innovation, and competitiveness in an evolving digital landscape.

Collectively, these studies reinforce the pivotal role of skills and knowledge in shaping e-commerce adoption dynamics, with recent research continuing to affirm their significance in fostering e-commerce success.

Research Methodology

In this study, we employed a purposive sampling technique to select participants based on specific criteria relevant to our research objective: exploring the e-commerce skills and knowledge of the B40 group in Selangor. The online survey was conducted from July 2022 to August 2023 and distributed via email to online merchants, as well as shared in Facebook groups for Selangor merchants. Additionally, data were collected through direct engagement with merchants at locations such as Uptown Damansara and the Selangor State Development Corporation (PKNS) complex to gain insights from individuals not involved in e-commerce.

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The questionnaire was developed based on existing literature on **e**-commerce skills and knowledge**,** with modifications to fit the Malaysian e-commerce context (Ahmad et al., 2015; Hamdan et al., 2016; Huang et al., 2020; Ariansyah et al., 2021). It comprised three sections: Section A focused on the type of e-commerce participation, Section B assessed respondents' skills and knowledge, and Section C gathered socio-demographic information. A five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used to measure variables related to e-commerce skills, including IT skills, digital marketing skills, entrepreneurial skills, financial management and accounting skills, and English proficiency**.**

Data analysis was conducted using SPSS version 26. Descriptive analysis was performed to examine the data, while Cronbach's Alpha was used to assess the internal consistency of questionnaire items. The reliability analysis indicated that all alpha values exceeded the 0.60 threshold, demonstrating good internal consistency (Nunnally & Bernstein, 1994). To accommodate respondents, the questionnaire was provided in both English and Malay. In total, 162 B40 entrepreneurs participated in the study.

Research Findings

Table 1 presents the demographic profile of the respondents. Out of 162 participants, 130 (80.2%) are involved in e-commerce, while 32 (19.8%) are not. Among those engaged in e-commerce, 80 (49.38%) are female, and 50 (30.82%) are male. In terms of age distribution, the largest group falls within the 19–29 age range (53 respondents, 32.72%), followed by those aged 30–39 years (48 respondents, 29.62%). Regarding marital status, the majority are married (72 respondents, 44.44%), while 55 (33.92%) are single, and 3 (1.85%) are divorced or single parents.

Ethnicity-wise, most e-commerce participants are Malay (103 respondents, 63.58%), followed by Chinese (22 respondents, 13.58%), Indian (2 respondents, 1.23%), and other ethnic backgrounds (3 respondents, 1.85%). In terms of education, a significant proportion of e-commerce participants hold a bachelor's degree (57 respondents, 35.19%), indicating a relatively high level of education. Additionally, 42 respondents (25.93%) have a full-time job alongside their e-commerce business. Regarding household income, 64 e-commerce sellers (39.51%) earn less than RM2,500 per month, highlighting the financial challenges faced by a substantial portion of this group.

Table 1: Profile of Respondents

Demographic Characteristic	**Do you sell products or services through e-commerce? (n = 162)**	
	Yes	**No**
	130 (80.2%)	32 (19.8%)
Gender		
Male	50 (38.46%)	0 (0%)
Female	80 (61.54%)	32 (100%)
Total	**100%**	**100%**
Age		
18 and below	2 (1.54%)	19 (59.38%)

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19-29	53 (40.77%)	5 (15.62%)
30-39	48 (36.92%)	8 (25%)
40-49	22 (16.92%)	0 (0%)
50-59	4 (3.08%)	0 (0%)
60 and above	1 (0.77%)	0 (0%)
Total	**100%**	**100%**
Marital		
Single	55 (42.31%)	20 (62.5%)
Married	72 (55.38%)	12 (37.5%)
Divorce/Single Parents	3 (2.31%)	0 (0%)
Total	**100%**	**100%**
Race		
Malay	103 (79.23%)	27 (84.38%)
Chinese	22 (16.92%)	0 (0%)
Indian	2 (1.54%)	5 (15.62%)
Other	3 (2.31%)	0 (0%)
Total	**100%**	**100%**
Education		
SPM	12 (9.23%)	6 (18.75%)
STPM/Matriculation/Foundation	9 (6.92%)	1 (3.13%)
Diploma	29 (22.31%)	7 (21.88%)
Degree	57 (43.85%)	15 (46.88%)
Master	16 (12.31%)	2 (9.36%)
PhD	6 (5.38%)	0 (0%)
Other	0 (0%)	0 (0%)
Total	**100%**	**100%**
Employment		
Self-employment	42 (32.31%)	10 (31.25%)
Government Sector	13 (10%)	3 (9.38%)
Private Sector	42 (32.31%)	8 (25%)
Full-time Student	17 (13.08%)	5 (15.62%)
Housewife	12 (9.23%)	2 (6.25%)
Unemployment	3 (2.31%)	4 (12.5%)
Retiree	1 (0.76%)	0 (0%)
Total	**100%**	**100%**
Monthly Household Income Category		
B1 (RM2,500 Below)	64 (49.23%)	8 (25%)
B2 (RM2,501 – RM3,170)	15 (11.54%)	11 (34.38%)
B3 (RM3,171 – RM3,970)	45 (34.62%)	8 (25%)
B4 (RM3,971 – RM4,850)	6 (4.61%)	5 (15.62%)
Total	**100%**	**100%**

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Table 2 presents the e-commerce skills and knowledge of the B40 group in Selangor across five key areas: IT skills, digital marketing skills, entrepreneurial skills, financial management and accounting skills, and English language skills.

Table 2: E-Commerce Skills and Knowledge

Item	Mean	Std. Deviation	Cronbach's α
IT skills			
1. Accounting software	3.14	1.07	
2. Search Engine Optimisation (SEO)	3.52	1.06	
3. Data entry	3.90	1.05	0.80
4. Sending and receiving email	4.04	1.07	
5. Ms. Word and Ms Excel	4.14	0.87	
Mean overall	**3.75**		
Digital Marketing Skills			
1. Email marketing	3.67	0.91	
2. Copywriting	3.68	0.80	
3. Advertising	3.77	0.80	0.88
4. Social marketing	3.91	0.72	
5. Online marketing	3.92	0.79	
6. Software design	3.98	0.73	
Mean overall	**3.99**		
Entrepreneurial Skills			
1. Risk taking	3.48	0.97	
2. Leadership	3.64	1.00	
3. Problem-solving	3.67	0.97	0.94
4. Creative thinking	3.72	0.96	
5. Time management	3.77	0.91	
6. Business management	3.80	0.80	
Mean overall	**3.68**		
Financial Management and Accounting Skills			
1. Understanding record keeping systems such as debit and credit	3.46	1.09	
2. Break-even analysis	3.52	0.99	
3. Cash flow management	3.55	1.01	
4. Product pricing	3.57	0.95	0.96
5. Capital raising	3.60	0.90	
6. Debt management	3.66	0.87	
7. Money management	3.67	0.99	
8. Financial statement	3.72	0.94	
Mean overall	**3.53**		
English Language Skill			

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1. Reading	3.88	0.92	
2. Writing	3.78	0.86	0.96
3. Communicating	3.62	0.98	
Mean overall	**3.76**		
A five-point Likert scale was used (1 = Strongly Disagree to 5 = Strongly Agree)			

In terms of IT skills**,** respondents showed proficiency in fundamental office software (Microsoft Word and Excel, average score: 4.14) and email communication (4.04). However, specialized skills such as accounting software usage (3.14) and SEO (3.52) indicate areas for improvement. Data entry skills had a moderate score of 3.90. For digital marketing skills**,** respondents demonstrated confidence in social media marketing (3.91), online marketing (3.92), and software design (3.98). However, email marketing (3.67) and copywriting (3.68) scored lower, suggesting the need for further training.

In entrepreneurial skills, respondents showed moderate competence in problem-solving (3.68), creative thinking (3.72), and business management (3.80). Risk-taking (3.48) and leadership (3.64) had lower scores, indicating potential skill gaps. Regarding financial management and accounting skills**,** respondents showed a good understanding of financial statements (3.72) but scored lower in record-keeping (3.46) and capital raising (3.60). Debt management (3.66) and money management (3.67) were also identified as areas for potential improvement.

For English language skills, respondents reported stronger abilities in reading (3.88) and writing (3.78) but slightly lower confidence in spoken English (3.62). The overall mean score of 3.76 reflects a balanced proficiency level. The questionnaire used in this study demonstrated good reliability, with Cronbach's alpha values exceeding 0.60 for all skill and knowledge areas, confirming internal consistency.

Since the sample includes both e-commerce and non-e-commerce sellers, we also examined the reasons why some B40 entrepreneurs in Selangor do not engage in e-commerce. Table 3 provides a comprehensive overview of these barriers.

Table 3: Reasons for Not Participating in E-Commerce

Item	Frequency (n = 32)	Percentage
I am not interested in doing business.	12	37.5%
No device (such as a laptop, smartphone, or iPad/tablet).	13	40.6%
E-commerce costs are too high.	16	50.0%
Internet fees are too expensive for me.	14	43.8%
E-commerce is not convenient to use.	15	46.9%
Lack of infrastructure, such as poor internet connection.	16	50.0%
Lack of government support.	16	50.0%
Lack of knowledge and skills in e-commerce.	28	87.5%

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The findings reveal several key reasons why respondents from the B40 group in Selangor choose not to participate in e-commerce. The most prevalent barrier is a lack of knowledge and skills in e-commerce, cited by 87.5% of respondents, indicating a critical gap in digital literacy and business-related competencies. Additionally, half of the respondents (50%) identified high e-commerce costs, inadequate infrastructure (such as poor internet connection), and insufficient government support as significant obstacles to participation.

Furthermore, 46.9% of respondents find e-commerce inconvenient to use, while 43.8% stated that internet fees are too expensive, adding to their financial burden. The lack of access to necessary devices, such as laptops, smartphones, or tablets, was another challenge, affecting 40.6% of respondents. Lastly, 37.5% of respondents expressed a lack of interest in starting a business, suggesting that entrepreneurial inclination also plays a role in e-commerce adoption.

Conclusion

This study explores the e-commerce skills and knowledge of urban B40 entrepreneurs in Selangor, Malaysia. The findings indicate that while respondents exhibit strong proficiency in basic IT skills, particularly in Microsoft Word and Excel, their competencies in digital marketing, entrepreneurship, financial management, and English communication remain at a moderate level. Additionally, the study highlights significant barriers to e-commerce participation among non-sellers, with the most prominent challenges being a lack of e-commerce knowledge and skills (87.5%), high e-commerce costs (50%), poor infrastructure (50%), and limited government support (50%).

These findings underscore the urgent need for targeted interventions to bridge skill gaps and improve digital inclusivity. As Malaysia moves forward with its digital economy agenda under the Malaysia Digital Economy Blueprint (MyDIGITAL), addressing these challenges is essential to ensuring that the B40 community in the urban area is not left behind. Government agencies, industry players, and educational institutions should collaborate to provide affordable and accessible training programs tailored to the needs of lower-income entrepreneurs. Strengthening digital skills and knowledge will not only enhance e-commerce adoption but also contribute to broader economic empowerment, aligning with Malaysia's goal of having 875,000 MSMEs participate in e-commerce in 2025.

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