

Probing Small and Medium Enterprise' (SMEs) Uptake on Ecommerce in Camarines Sur, Philippines

ABSTRACT

A study was conducted to identify the extent of use of ecommerce in the product promotion of SMEs, determine the factors affecting the ecommerce uptake of SMEs and recommend strategies to enhance product promotion through ecommerce in Camarines Sur, Philippines. Ninety-six SMEs were respondents in this study from the 5 districts in Camarines Sur, Philippines. Survey-questionnaire was prepared, key informant surveys and focused group discussion were conducted to gather first-hand data from respondents. Frequency, percentages and t-test were used to analyze the data. Results of the study showed that all respondents have access to the internet but only 4 have websites for the promotion of their products. About half have no definite plans of establishing their websites. However, 67 of the SMEs are already doing online business through social networking sites. T-test result showed that there is no significant difference in terms of ecommerce adoption between men and women with $p(.43) > .05$. Barriers in the uptake of ecommerce were identified such as lack of benefits accruing from the use of ecommerce, inadequate financial resources, lack of skill and technical capabilities and fear of losing their privacy. Recommendations include provisions of training and skills development to motivate entrepreneurs, presence of enabling policies and infrastructure that will enable widespread use of internet for SMEs and proactive awareness campaign to improve the flow of information to small firms on the benefits of electronic commerce. All these are necessary to enable our SMEs to shift to the 'new' economic era and platform.

Keywords: ecommerce, SMEs, social networking, product promotion, entrepreneur

1. INTRODUCTION

Small and medium-sized enterprises (SME) have mushroomed globally because of the emerging prospects and opportunities that it offers to business owners and entrepreneurs. They play a major role in most economies, particularly in developing countries. Formal SMEs contribute up to 60% of total employment and up to 40% of national income in emerging economies [1].

The ASEAN Strategic Action Plan for SME Development 2016-2025 represents ASEAN's recognition that SMEs require additional support to take full advantage of the trade and investment opportunities that are expected to come from further economic integration, as well as to increase their competitiveness [2]. While they play critical role in the country's economy, SMEs still need assistance to boost their productivity, innovation and in terms of adoption of new technologies. This is because many SMEs are likely to be characterized by the use of traditional technologies, limited technical skills and lack of information about markets and new technologies [1, 3]. SMEs may initiate innovation activities but they find it difficult to carry them through on their own. Knowledge spill overs from other firms and universities are considered very important for the development of innovative enterprises [4].

One of the promising and innovative ways is to utilize digital platforms to reduce trade costs and increase SME involvement in trade. Access to digital technologies have considerably lowered the barriers of entry into global markets, enabling SMEs to internationalize at a fraction of the cost, and making it easier to participate in international production networks, find customers abroad and make international payments [5].

In the Philippines, SMEs are burgeoning at a fast rate. The 2017 List of Establishments of the Philippine Statistics Authority (PSA) recorded a total of 924,721 business enterprises operating in the country. Micro, small and medium enterprises (MSMEs) account for 99.56% (920,677) of the total establishments, of which 89.59% (828,436) were microenterprises, 9.56% (88,412) were small enterprises, and 0.41% (3,829) were medium enterprises. Large enterprises made up the remaining 0.44% (4,044) [6].

While there is huge number of SMEs in our country, the use of digital platforms and ecommerce uptake is still low. This is due to the internal and external factors that impedes the adoption of ecommerce such as firm size, internet infrastructure and speed, issues on security and privacy and logistical problems [7,8,9]. At the regional or local level, a study on ecommerce adoption is still wanting and the status of ecommerce uptake has yet to be determined if it agrees with the overall situation in the Philippines.

Ecommerce and digital marketing is here to stay and SMEs at the national and local level need to be challenged to make them more productive, innovative and competitive. They need to join the rising tide of ICT and ecommerce utilization to become at par with SMEs in other countries. Hence, this project aims to determine the profile of SMEs in Camarines Sur, identify the extent of use of ecommerce in the product promotion of SMEs, determine the factors affecting the ecommerce uptake of SMEs and recommend strategies to enhance product promotion through ecommerce

2. LITERATURE REVIEW

SMEs that innovate are more likely to engage in global markets than non-innovative firms. Process and organizational innovation, for example, can increase firm productivity by reducing production costs and allowing SMEs to achieve the minimum level of efficiency

required to cover the fixed costs of exporting. Through product innovation, marketing innovation and innovative branding strategies, SMEs differentiate their products from those of their competitors, which enables them to gain market shares in global markets [5].

A research study conducted revealed that internal factors primarily determine ecommerce adoption in the Philippines, particularly firm size, availability of computers, access to the internet, and firm use of ICT in other aspects of firm operations and these are all positively correlated to ecommerce adoption [7]. External factors, such as growth of the industry in which the firm belongs and the market share of the firm (as a proxy for competition), have no statistically significant effects on ecommerce adoption. The results are essentially robust even after differentiating the firms according to their degree of ecommerce adoption.

A similar study conducted suggests that there are factors affecting ecommerce adoption in the Philippines [8]. The results of the study showed that determinants such as ease of understanding, personalization and reliability positively affected the intent to use ecommerce. It further posited that an understanding of the factors found in the study permits the firms to concentrate their resources and improve necessary strategies to motivate internet users to switch to ecommerce and to increase their market share in the future. Likewise, a study also noted that ecommerce adoption is affected by several factors which needs careful consideration [9]. In the uptake of ecommerce, issues and challenges identified were slow and expensive internet access, minimal take-up of e-payment service, consumer issues on security, privacy and trust, challenges in logistics, complicated customs processes and fragmented geography and limited understanding on how ecommerce works among prospective entrepreneurs.

ICT and electronic commerce is a welcome innovation to businesses and enterprises. Many crucial ICTs needed to sell goods abroad can be accessed cheaply, as long as a firm has access to the internet. For example, online platforms reduce the cost and speed of finding buyers of their products and services, and sellers of intermediate inputs at home and abroad, thus connecting supply and demand globally. Many of these digital platforms offer services that facilitate payments and provide warehousing and logistics services, all of which further reduce trade-related costs [5]. Taken together, this has contributed to a greater participation of SMEs in trade, as well as a rising number of small packages crossing international borders [10].

Similarly, access to online inputs contribute to SME competitiveness and help SMEs operate across distant markets to overcome trading costs. For example, cloud computing helps SMEs access IT services with little upfront investment and scale up their IT functions in response to changes in demand. Better and faster access to critical knowledge and information can also help SMEs overcome informational disadvantages, notably with respect to larger firms, and compete on a more even footing. The Internet and international data transfers help SMEs better connect, improve their ability to secure and fulfill global contracts and access global supply chains [5].

Indeed, the use of emerging technologies is very crucial to SMEs innovation strategies. It is considered as a potent force to enhance firm productivity, making it easier for them to access foreign markets and compete. However, new technologies tend to require considerable upfront costs, as well as a reorganization of the firm to adopt and effectively implement them, making the investment often too expensive for SMEs and larger firms more likely to adopt advanced technologies, including digital ones. Small firms are, for instance, less likely to adopt a range of hardware and software technologies, including servers, Enterprise Resource Planning (ERPs), database management systems, and innovation software [11].

Likewise, small and medium-sized enterprises face barriers to growth and face limitations relative to large firms. These limitations include: i) lower bargaining power; ii) fewer resources to invest in technology and people, and to ride out difficult periods; iii) higher compliance costs; iv) smaller networks; and v) limited managerial and/or technical skills. These barriers can discourage entrepreneurs from embarking on a business venture or can cause SMEs to operate well below their optimal efficiency frontier [2].

Furthermore, SMEs have considerably less knowledge-based capital and accumulated technology, making it harder for them to adopt emerging technologies [12]. In fact, certain technologies may actually favor large multinational firms, as advances in information and communication technology enable large multinationals to coordinate and profit from complex and fragmented production networks [13].

Some barriers can be resolved with the support of government and national (local) institutional support agencies for businesses in emerging economies, as it can be seen that they have the power to remove the barriers that currently impede large scale adoption of ecommerce. A study suggests that governments in emerging economies should create national technology resource and incubation centers to further educate owner-managers, new entrepreneurs and executives about the potential of new technologies, including ecommerce [14].

This is further supported by the research findings which posits that the government has a very strong role to play as state policy, specifically legislation, significantly affects adoption and growth of ecommerce [15]. One of the most important measures that can be taken and that will counter multiple barriers to ecommerce growth is the development of a supportive regulatory and legal environment.

In a research study conducted among 16 SMEs in Saudi Arabia relative to their adoption of ecommerce, findings revealed several perceived challenges that relate to culture, technical and business issues and also points out the possible boosters for the adoption of ecommerce by SMEs include educational and awareness programs, support from the government, various trustworthy online payment options that are secure, development of strong IT infrastructural networks, and the provision of a trial ecommerce software [16].

The government's role is a significant component to enhance the sustainable MSME business performance in the context of policymaking particularly, in the progress of these businesses by enhancing the impact of ecommerce adoption [17]. The MSME business owners are able to identify and map clients well by adopting ecommerce and entrepreneurship orientation to further develop their business performance. Researchers further argued that their research findings can be used by academics and practitioners to improve marketing strategy management especially in the field of MSME.

Furthermore, ecommerce adoption is largely affected by the degree of support from the government, technological advances, and the COVID-19 pandemic [18]. They are inextricably linked to one another. SMEs have been driving the emergence of ecommerce due to ongoing technological advances. It also suggested that ecommerce is not a threat to traditional brick-and-mortar businesses as individuals still prefer going to stores as a result of the prolonged lockdown in the country. Ecommerce will not threaten the existence of traditional businesses because the effect of COVID-19 has resulted in some digital businesses building physical stores to broaden their reach to target customers. In this context, merging ecommerce and traditional brick-and-mortar businesses will give a more competitive advantage over possible competitors.

In another note, ecommerce adoption is also measured along three factors or themes as it relates to trustworthiness which are competence, benevolence and integrity [19]. Online business is trustworthy if the business possesses proper system in requesting payments and reasonable prices of the products being offered. Also, customers ground the trustworthiness of electronic commerce in terms of its delivery system. Furthermore, a trustworthy electronic commerce must always respond to their customers and address their concerns towards the product or business itself. Additionally, the satisfaction and fulfillment brought by the products of online business make the business trustworthy. Finally, the trustworthiness of the online businesses mainly revolves around the information used in the transaction. The customers can usually tell if the business is trustworthy or not if it utilizes the personal information of the customers in an ethical manner and if the business itself provides adequate information about its firm, its products, and its price levels.

At the global level, a study in ASEAN member countries revealed that policy makers should acknowledge that ecommerce platforms are still not fully exploited by all, but instead by a rather specific type of customer: younger, more educated, and wealthier [20]. To a certain extent, this profile sends a signal that the trend only favors people in more developed countries where the education system is better and disposable income is higher. This should be an alarming call for ASEAN committees to continuously and aggressively narrow the development gaps across the country members. Also, the initiatives at the macro-level to promote ecommerce adoption should not neglect the important aspect of socio-cultural values. Although national culture is not visibly changed in the short or medium term, local government should strive to nurture favorable values in society such as trust and risk tolerance.

3. METHODOLOGY

This research study is an explanatory type of investigation. Respondents were identified based on the list of SMEs from the Department of Trade and Industry (DTI), Bicol region, Philippines. Respondents were selected from the province of Camarines Sur using purposive sampling technique. Survey-questionnaire was prepared and used to gather data from the field. Pre-testing was done prior to the distribution of the questionnaire to determine if all questions have been included and well-understood by potential respondents. The questionnaire was personally administered by the researcher with the assistance of a research aide. A total of 96 respondents who are SMEs and business owners of small, medium-sized enterprises in the five (5) districts consisting of eighteen (18) municipalities of Camarines Sur served as respondents. During the conduct of survey, informal interview was also done to gather more data and delve deeper into the thoughts and ideas of the respondents relative to ecommerce adoption.

Secondary data were also gathered from other agencies such as the Metro Naga Chamber of Commerce and Industry, Camarines Sur Chamber of Commerce and Industry, Department of Agriculture and other agencies/institutions which may have relevant data for the project. Likewise, data were gathered from publications of various government offices, private institutions, previous researches/thesis/dissertations, journals and articles. Key informant survey was likewise conducted. These data were gathered to substantiate the information and responses gathered from the respondents. T-test was also done to compare the differences in terms of ecommerce adoption by gender.

4. RESULTS AND DISCUSSION

4.1 Respondent's Profile

A total of ninety-six (96) SMEs served as respondents in this study coming from the 5 districts covering eighteen (18) municipalities in the province of Camarines Sur, Philippines. Of the 5 districts, more than half (58%) of them came from District 3 from 5 municipalities of Calabanga, Canaman, Pili, Ocampo and Camaligan and from Naga City. This was followed by District 5 with 22% of the respondents and District 1 with the lowest (2%) number of respondents (Table 1).

Table 1. Number of Respondents by District, Camarines Sur, Philippines

District Number	Municipality	Number	%
1 st District	Lupi	1	2
	Sipocot	1	
2 nd District		7	8
	Gainza	1	
	Libmanan	5	
	San Fernando	1	
3 rd District		56	58
	Calabanga	3	
	Canaman	4	
	Pili	13	
	Naga	29	
	Ocampo	3	
	Camaligan	4	
4 th District		10	10
	Goa	3	
	Tinambac	1	
	Tigaon	6	
5 th District		21	22
	Bula	1	
	Buhi	5	
	Baao	5	
	Iriga	10	
Total		96	100

In terms of gender, 78% of the SME owners are females and only 22% are managed by males (Table 2). Most of the respondents' age cluster within the range of 45 to 68 years old and a small percentage (18%) belong to the age range between 61 to 76 years old. Similarly, 20% of the respondents belong to the age range of 29 years old and below.

Table 2. Demographic Profile of Respondents

	Number	%
Gender		
Male	21	22
Female	75	78
Total	96	100
Age		
69 – 76	1	1
61 – 68	16	17
53 – 60	28	29
45 – 52	19	19
37 – 44	13	14
29 – 36	12	13
20 – 28	7	7
Total	96	100

T-test statistical analysis was done to determine if there is significant difference in terms of ecommerce adoption between men and women (Table 3). Result of the study showed that there is no significant difference in ecommerce adoption between men and women with p-value (.43) > .05.

Table 3. t-Test on Ecommerce Adoption between Men and Women Entrepreneurs

	<i>Male</i>	<i>Female</i>
Mean	1.047619048	1.093333333
Variance	0.447619048	1.274954955
Observations	21	75
Pooled Variance	1.098926039	
Hypothesized Mean Difference	0	
Df	94	
t Stat	-0.176633213	
P(T<=t) one-tail	0.430088257	
t Critical one-tail	1.661225855	
P(T<=t) two-tail	0.860176513	
t Critical two-tail	1.985523442	

While there is no significant difference in ecommerce adoption between gender, it can be noted that there are more women entrepreneurs than men in Camarines Sur. This is so because women entrepreneurs are known to multitask in a lot of roles that incorporate their daily lives, such as procreators, home managers and lastly entrepreneurs running their own ventures [21]. Nowadays, women tend to be inclined to technology. Women entrepreneurs

gear themselves to exploit the potential of ecommerce, and thus be a part of the global production system [22]. This is however, in stark contrast to the findings that compared to men, female entrepreneurs had a lower propensity towards investments, innovation, development and growth. Women are significantly less oriented toward innovation/development strategies than men are [23].

Table 4 shows the utilization of the internet of SMEs. It can be gleaned that all of the entrepreneurs have access to internet especially when they use the internet for communication purposes. They use the internet for the purpose of obtaining information and communicating with friends, family and relatives. Just about 33 of the respondents make use of the internet for buying and selling and a minor number (4) of respondents make use of the internet for banking and financial transactions. This result corroborates with the previous study which suggested that the use of the internet follows specific phases and steps. The first step involves using the Internet as a tool for communicating and obtaining information. In a second phase, SMEs consider basic electronic commerce activities such as buying and selling. Finally, SMEs start conducting banking and financial transactions [24, 25].

Table 4. Nature of Utilization of the Internet

Nature of Use	Number
Communication and obtaining information	96
Buying and Selling	33
Banking and Financial Transactions	4

4.3 Probing SMEs Uptake on Ecommerce

4.3.1 Use of Social Networking Sites (SNS)

With the advent of ecommerce and digital marketing, respondents were asked relative to the utilization of promotional media. Table 5 shows that only 4 SMEs have their own websites. For other SMEs, when probed further if they have plans of setting up their own websites, almost half answered that they have no definite plans, 25% plan to set it up within the next 2 to 5 years, and the remaining entrepreneurs have no plans at all of establishing their websites. Some of the reasons provided for not establishing their websites are: financial constraints, technical capability of entrepreneurs, not a priority and slow internet connectivity. The adamant attitude for internet uptake in business is therefore, apparent. A previous study noted that the internet is not yet a universally accessible resource in developing countries in general. For instance, in Nigeria, the inadequate investment in skills and the relative high initial costs in setting up ecommerce strategies all form solid bedrock that hinders adoption of ecommerce [26]. Likewise, SMEs reveal limited understanding of the full range of benefits of electronic commerce. Information on electronic commerce, *i.e.* dissemination of information on best practices, success stories and opportunities and obstacles related to the use of the Internet and electronic commerce, is one crucial area for policy action [24].

This study noted however, that 67 of the SMEs are already doing online selling through the use of social networking sites (SNS) such as Facebook, Twitter and Instagram and 9 are

making use of emails for business correspondence. As mentioned earlier, women entrepreneurs are using social networking sites to conduct their business. The reason for using these websites as a business possibility is its ease of use like signing up, creating and maintaining personal and business profile and a large number of global users who can easily access your page [22]. Previous study showed that both formal and informal women owned ventures have been observed to adopt social media platforms to grow their communities as a medium for keeping in touch and getting current and ground feedback on products or services from existing or prospective clients [21].

4.3.2 Social Networking Sites (SNS) vs Traditional Media

The increased use of the internet for business purposes has resulted to the dwindling utilization of traditional media such as television, radio, newspapers and magazines. These traditional media is in the form of print, broadcast, support media and trade fair participation. Print media is in the form of flyers, brochures and calling cards while broadcast is the utilization of television or radio for product promotion. Support media on the other hand, utilizes poster, cinema and video advertising.

Comparing the various traditional media available for product promotion, participation to trade fairs showed the highest number and is still a very good avenue for making their products known to the public followed by print media (Table 5).

Table 5. Promotional Media Utilization

Type of Media	Number
1. Internet	
1.1 Website	4
1.2 Social Networking Site (SNS)	67
1.2.1 Facebook	60
1.2.2 Twitter	2
1.2.3 Instagram	5
1.3 Email	9
2. Print Media	
2.1 Flyers	14
2.2 Brochures	11
2.3 Calling Card	5
3. Broadcast Media	
3.1 Radio	8
3.2 Television	2
4. Support Media	
4.1 Poster	22
4.2 Cinema & Video Advertising	1
5. Trade Fair	52

Respondents were also asked about the various activities being conducted using the internet. The major activities were identified and the frequency of use of the internet was given quantitative and equivalent qualitative ratings as well. A rating scale was used to explain the value/average in terms of qualitative rating. Mean values from 4.2 to 5.0 are given an equivalent rating of "Very often", which means that they use the internet for conducting this activity most of the time or very often; 3.4 to 4.1 mean values have an equivalent qualitative rating of "Often"; the range of 2.6 to 3.3 and 1.8 to 2.5 correspond to

“Sometimes” and “Rarely”, respectively and a numerical range of 1.0 to 1.7 correspond to a qualitative rating of “Never”.

Table 6 shows that most of the respondents turn to digital platform/online service for marketing their products and receiving orders, with a qualitative rating of “Often”. However, respondents only gave a rating of “sometimes” for activities such as information search which is business-related, competitor analysis, financial transactions, ordering of goods and services and electronic payment. They also rarely use the internet for dealing with public authorities and after-sales service and never use the internet for recruitment of personnel, receiving and selling digital products and accessing databases.

Table 6. Frequency of internet use for online business

Activity	Average	Qualitative Rating
Marketing via homepages (Facebook)	3.6	Often
Receiving orders	3.9	Often
Information Search (business-related)	2.9	Sometimes
Competitor analysis	2.8	Sometimes
Financial transactions	3.3	Sometimes
Ordering goods and services	2.7	Sometimes
Electronic payment	2.8	Sometimes
Receiving electronic payments	2.6	Sometimes
Dealing with public authorities	2.0	Rarely
After sales	2.5	Rarely
Recruitment of personnel	1.1	Never
Receiving digital products	1.2	Never
Accessing databases	1.1	Never
Sale of digital products	1.5	Never

4.4 Inhibitors to Ecommerce Uptake

Various issues were raised by respondents relative to ecommerce application to their businesses. With the onset of information technology, firms and enterprises face internal and external pressures to adopt a digital presence in social media platforms [27]. Some of the internal and external factors identified were the following:

4.4.1 Internal Factors:

1. SMEs still lack awareness on the potential benefits of ecommerce. During the conduct of interview, most of the respondents are still not convinced of the positive effect of ecommerce (Table 7). In the questionnaire, respondents were asked to rank the possible internal as well as external factors which they think affect the adoption of ecommerce. Results showed that of the internal factors, respondents

identified lack of skill and time to investigate and implement ecommerce as the foremost factor which affect ecommerce adoption of mSMEs. This is in support to the findings that SMEs are not yet optimizing the use of the internet and there are obstacles preventing the adoption of electronic commerce like indifference and disinterest [24]. There seems to be low awareness of the importance of electronic commerce as evidenced by the findings of this study.

2. While respondents see the opportunity that their businesses may grow with the use of IT, the main obstacle identified is the inadequate financial resources that goes with digitalization. Financial limitation is a serious consideration. This corroborates with the findings that cost is a crucial issue and the initial investment for the adoption of a new technology may be proportionally heavier for small than for large firms [24].
3. Lack of skill and technical capabilities in running the business via online is considered threatening for entrepreneurs. Some are not technologically ready and IT literate which is crucial to having an online business.
4. Some entrepreneurs have heightened fear of losing the privacy of their personal and business profiles once they venture into ecommerce. There is fear of putting personal and private information at risk over the internet. Ensuring the security of payments and privacy of personal data may also be a serious concern for SMEs, because of their limited capacity to deal with disruption. The costs associated with establishing trust and reducing risk tend to be more important for an SME than for a large firm that enjoys strong brand identification [24].

In a similar report, it was found out that barriers to the acceptance of ecommerce is indeed present. Lack of awareness and knowledge of ecommerce, lack of skill and time to investigate and implement ecommerce, technology 'phobia' amongst proprietors, cost of implementation and lack of realization of the benefits associated with the implementation of ecommerce, concerns with security and privacy were previously reported [28].

4.4.2 External Factors:

In addition to the internal factors, a number of external barriers also inhibit the implementation of ecommerce by SMEs. Some of these are:

1. Lack of technical support and assistance from the government to successfully shift from traditional physical and mortar business to an online one.
2. Internet connectivity, bandwidth capacity and infrastructure are issues that need to be seriously considered to ensure successful implementation of digital commerce.
3. Hackers, spam emails and electronic authentication issues are adversely affecting online transactions. Safety nets must be ensured for the benefit of the business owners and customers.

The result of the survey revealed that the problem on bandwidth capacity and infrastructure issues is the topmost reason that affects ecommerce adoption.

The result of this study concurs with previous studies that had identified various internal and external factors in the Philippines. One study revealed that internal factors such as firm size,

availability of computers, access to the internet, and firm use of ICT in other aspects of firm operations and external factors, such as growth of the industry in which the firm belongs and the market share of the firm (as a proxy for competition) primarily determine ecommerce adoption [7]. In addition, ease of understanding, personalization and reliability positively affected the intent to use ecommerce [8]. Moreover, factors such as slow and expensive internet access, minimal take-up of e-payment service, consumer issues on security, privacy and trust, challenges in logistics, complicated customs processes and fragmented geography and limited understanding on how ecommerce works were also noted [9]. Ecommerce adoption in the Philippine landscape is largely affected by the degree of support from the government, technological advances, and the COVID-19 pandemic [18].

Table 7. Factors affecting Ecommerce Adoption

Internal Factors	Rank
Lack of awareness and knowledge of ecommerce;	3
Lack of skill and time to investigate and implement ecommerce;	1
Technology 'phobia' amongst proprietors;	6
Cost of implementation and lack of realization of the benefits associated with the implementation of ecommerce;	2
Concerns with security and privacy;	5
Poor business management generally, as evidenced by a lack of strategic direction or perspective	4
High failure rate of new SMEs	7
External Factors	Rank
Lack of suitable software standards;	3
Lack of easily accessible, independent and inexpensive advice and assistance to SMEs;	2
Electronic authentication issues;	4
Bandwidth capacity and infrastructure issues	1

While there is a strong push for SMEs to adopt ecommerce and online platform for their businesses, there are still identified reasons why majority are constrained to do so. These barriers and constraints need to be carefully considered especially by the government to ensure increased awareness on ecommerce and the benefits accruing to it.

5. SUMMARY, CONCLUSION and RECOMMENDATIONS

A total of 96 SMEs from the province of Camarines Sur served as respondents in this study. All have access to the internet but only 4 have websites for the promotion of their products. T-test analysis showed that there is no significant difference in ecommerce adoption between men and women. About half have no definite plans of establishing their websites within the next 2 to 5 years. However, 67 of the SMEs are already doing online business through the use of social networking sites such as Facebook, Twitter and Instagram. Traditional media is still a popular way of promoting their products especially through their

participation in trade fairs. Internal and external factors were identified as barriers in the uptake of ecommerce such as lack of benefits accruing from the use of ecommerce, inadequate financial resources, lack of skill and technical capabilities and the fear of losing their privacy in the light of using digital media for their business. SMEs are still adamant to use ecommerce as a potent tool for increasing their business presence and are still comfortable with the utilization of traditional promotional media such as participation to trade fairs. However, they are starting to show interest with the use of social networking sites which provide a good medium for product promotion with minimum cost on the part of the entrepreneurs.

SMEs are now facing internal and external pressures to adopt a digital presence in social media platforms. As such, it is crucial that SMEs be provided with training and skills development since this will motivate them further to tread into a new digital business platform. This further supports previous findings that emphasizes the importance of training and skills formation on human resource development services in order to stimulate the SME uptake of electronic commerce [24]. Likewise, provision of policies and infrastructure that will enable widespread use of internet for SMEs. As such, a detailed political/legal framework with high level of government support will ensure the increased adoption of electronic commerce by most SMEs [14,15,16,17,21]. To motivate further the SMEs, awards programs to recognize the achievement of business innovators must be done and rewards be given to innovative business practices. Government and non-government institutions must also intensify awareness campaigns to improve the flow of information to small firms on the benefits of electronic commerce. Their role in educating and emphasizing the importance of electronic commerce to various SMEs will ultimately result to the increased ecommerce adoption [16,26].

All these are necessary to enable our SMEs to shift to the 'new' economic era and platform. The coordinated effort of all stakeholders is crucial in order to make the transition of businesses from traditional to a digital one be effective and successful.

Consent

As per international standard or university standard, **respondents' written** consent has been collected and preserved by the author(s).

6. REFERENCES

1. Small and medium Finances Enterprises (SMES). Improving SMEs Access to Finance and Finding Innovative Solutions to Unlock Sources of Capital. The World Bank. IBRD-IDA, 2015. Retrieved from <https://www.worldbank.org/en/topic/sme/finance>.
2. OECD/ERIA, SME Policy Index: ASEAN 2018: Boosting Competitiveness and Inclusive Growth, OECD Publishing, Paris. Economic Research Institute for ASEAN and East Asia. 2018. Retrieved from <https://doi.org/10.1787/9789264305328-en>
3. Enterprises in Asia: Fostering Dynamism in SMEs Key Indicators for Asia and the Pacific Special Chapter. 2009. Retrieved from <https://www.adb.org/sites/default/files/publication/27727/ki2009-special-chapter.pdf>

4. Audretsch, D. Sustaining innovation and growth: Public policy support for entrepreneurship, *Industry and Innovation*, Vol. 11/3, pp. 167-191, 2004. Retrieved from <https://doi.org/10.1080/1366271042000265366>.
5. Fostering greater SME participation in a globally integrated economy. Plenary session 3. OECD SME Ministerial Conference. 2018.
6. SMSE Statistics. Philippine Statistics Authority. 2017. Retrieved from <https://www.dti.gov.ph/dti/index.php/2014-04-02-03-40-26/news-room/179-workshop-on-market-access-for-MSMe-set>
7. Quimba, F. and Calizo, S. Determinants of Ecommerce Adoption of Philippine Businesses. Philippine Institute for Development Studies. 2019. Retrieved from <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1924.pdf>
8. Lim, E. Adoption of Ecommerce in Manila. De La Salle University. Presented at the DLSU Research Congress. De La Salle University, Manila, Philippines. 2014.
9. Prado, S. and Regañon, M. Competition and Ecommerce in the Philippines. Philippine Competition Commission. Singapore Symposium on Ecommerce, ASEAN Economic Integration, and Competition Policy and Law. ISEAS Yusof Ishak Institute and Competition Commission Singapore. 2017.
10. Lopez-Gonzalez, J., and Jouanjean, M. Digital Trade: Developing a Framework for Analysis, *OECD Trade Policy Papers*, No. 205, OECD Publishing, Paris, 2017. Retrieved from <http://dx.doi.org/10.1787/524c8c83-en>
11. De Stefano, T., and Moussiegt, L. Determinants of digital technology use by companies, *OECD Science, Technology and Industry Policy Papers*, No. 40, OECD Publishing, Paris. 2017.
12. Gibbs, J. and Kraemer, K. A Cross-Country Investigation of the Determinants of Scope of ECommerce Use: An Institutional Approach, *Electronic Markets*, 14(2): pp 124–37. 2004.
13. OECD-WB. Inclusive Global Value Chains: Policy options in trade and complementary areas for GVC Integration by small and medium sized enterprises and low income developing countries. OECD and World Bank Group. Report prepared for submission to G20 Trade Ministers Meeting. Istanbul, Turkey. 2015.
14. Nazir, M., Azam, M. Barriers to Adopting Electronic Commerce for Small and Medium-sized Enterprises in Emerging Economies. Volume 10 No 2. ISSN 2158-8708 (online). 2020.
15. Alyoubi, A. Ecommerce in Developing Countries and How to Develop Them During the Introduction of Modern Systems. *Procedia Computer Science* 65. pp 479 – 483. 2015.
16. Saud, A., et al. Challenges and Obstacles Facing SMEs in the Adoption of Ecommerce in Developing Countries: A Case of Saudi Arabia. *Estudios de Economia Aplicada*. Volume 39-4. ISSN: 133-3197. 2021.

17. Syahmardi Y. et.al. The importance of Ecommerce adoption and entrepreneurship orientation for sustainable micro, small, and medium enterprises in Indonesia, *Development Studies Research*, 8:1, pp 244-252. 2021.
18. Salazar, J. Factors Affecting the Demand for Ecommerce in the Philippines and its Impact on Traditional Brick and Mortar Businesses. *Global Scientific Journal*. Volume 9, Issue 11. ISSN 2320-9186. 2021.
19. Uy, J. et.al. Customers' Perception on the Trustworthiness of Electronic Commerce: A Qualitative Study. 2019.
20. Ayob, A. Ecommerce adoption in ASEAN: who and where? *Future Business Journal* 7:4. 2021. Retrieved from <https://doi.org/10.1186/s43093-020-00051-8>
21. Ukpere, C., Slabbert, A., Ukpere, W. Rising Trend in Social Media Usage by Women Entrepreneurs across the Globe to Unlock Their Potentials for Business Success. ISSN 2039-2117 (online). ISSN 2039-9340 (print). *Mediterranean Journal of Social Sciences*. MCSER Publishing, Rome-Italy. Vol 5 No 10. 2014.
22. Syed, S., and Erum, F. Social Networking Websites; Conduit for Women Entrepreneurs in Pakistan. *International Journal of Computing and Corporate Research*. ISSN 2249054X-V2I5M2-09 2012. Volume 2 Issue 5. 2012.
23. Cesaroni, F. and Sentuti, A. Which strategies to face the economic crisis? A comparison between Italian men and women micro-entrepreneurs. 2014. Retrieved from <https://ora.uniurb.it/handle/11576/2602593#.XoCisvkzblU>.
24. Enhancing the Competitiveness of SMEs in the Global Economy: Strategies and Policies. Workshop 3. Realizing the Potential of Electronic Commerce for SMEs in the Global Economy. Organization for Economic Co-operation and Development. Conference for Ministers Responsible for SMEs and Industry Ministers. Bologna, Italy, 2000.
25. Mack, E., Pierre, L. and Redican, K. Entrepreneurs' use of internet and social media applications. *Telecommunications Policy*. Volume 41, Issue 2. pp 120-139. 2017. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0308596116302555>.
26. Agwu M. Edwin, M., J. Peter. Drivers and Inhibitors to Ecommerce Adoption among SMEs in Nigeria. *Journal of Emerging Trends in Computing and Information Sciences*. Vol. 5, No.3. ISSN 2079-8407. 2014.
27. Pinheiro, M., Tiagoa, M. and Veríssimo, J. Digital marketing and social media: Why bother? *Business Horizons* Volume 57, Issue 6, Pages 703-708. 2014. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0007681314000949>
28. Pease, W., Rowe M. Ecommerce and Small and Medium Enterprises (SMEs) in Regional Communities. University of Southern Queensland. 2015.

