

Can ICT Reduce Poverty and Unemployment and Elevate Development Integrating Micro, Small, and Medium Enterprises in Bangladesh? – Sharing Asian Experiences

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ABSTRACT

Information and Communication Technology (ICT) can boost the performance of people and improve overall human capital for the alleviation of poverty in a society. Today, ICT is considered as one of the major sources of driving force for the overall economic development integrating with Micro, Small and Medium Enterprises (MSMEs). The e-Commerce has a great role in achieving business performance in the emerging Asian countries. However, MSMEs are experiencing more challenges that prevent them from further increasing their business. The earlier studies question to which extent MSMEs have benefited from these businesses. Therefore, the main purpose of this study is to demonstrate the importance of ICT in developing MSMEs based on the success stories of emerging Asian countries. This study based on subjective/argumentative i.e., idea generation in Information Systems (IS). The findings of the study reveal that the MSMEs utilizing ICT can alleviate poverty and unemployment. It also reveals that MSMEs with ICT and e-Commerce can enhance employment and new job creation that can contribute to the overall economic development. This study is expected to extend for further an empirical investigation broadly on the same issue to validate the research results.

Keywords-- MSMEs, ICT, e-Commerce, Job creation, Poverty alleviation, Economic development

I. INTRODUCTION

In the 21st century, MSMEs is the most important current issue for the economic development of a country that increases productivity and creates more employment opportunities for the contemporary society integrating ICT. Studies show that Bangladesh is still far behind to the development of MSMEs. This is because

of the lack of proper utilization of ICT in the decision-making process of diverse businesses, especially for not enough use of e-Commerce acceptance. Lack of ICT-oriented entrepreneurship in all aspects of businesses in Bangladesh might be another cause for this backwardness. It is expected that MSMEs can play a critical role in reducing poverty and unemployment from society allied with and utilizing ICT. It can also augment business empowerment. The definition of the SMEs differs from one country to another on the basis of understanding and acceptance of the idea. As per significance of the SMEs worldwide, its effect on the world economies, the direction of most nations to inspire SMEs project implementation.

Moreover, the SMEs have also been considered as the driving force behind economic evolution and growth of developing Asian countries. It is also recognized as the mainstay of state economies, the highest job creator, a huge potential source for export growth and improvement, particularly in the manufacturing sector. SMEs are used as a tool for prospective tool for poverty alleviation for generating self-employment opportunities and the enterprises. All these initiatives can also play a critical role for in supporting enterprises [1].

The success of MSMEs depends on some important antecedent factors which are evident from the prior studies in developed countries of the world. Even though, these success capabilities are also found in the prior studies of Asian countries, where ICT has utilized as is the leading collaborative tools.

However, Bangladesh has the huge capacity of human resources and intellectual properties that can with the integration of ICT. There was an initial dispute about whether plentiful digital power, for example, ICT is the magic which aids developing countries. Planned usage of ICT will truly donate to country-wide economic

development. On the basis of relevant other previous studies, ICT can be helpful to SMEs in developing countries (Economist's quotation as cited in [2]).

Moreover, still today, there is not a single technology invented in the history of human civilization for the overall benefit of all aspects of human life as compared to ICT. For this reason, the founder of Microsoft, Bill Gates highlights the importance of ICT tools as the 'digital nervous systems' of organizations.

In addition, ICT can upsurge effectiveness and output for SMEs in Bangladesh, as the economy of Bangladesh is weighed down with natural calamities, huge inhabitants mass and high unemployment rate [3].

ICT is essential for SMEs' development this is because ICT assists to develop the efficacy of the organizations [2].

Furthermore, the economy of Bangladesh is still lagged behind for e-Commerce, compared to other neighbouring Asian countries. Therefore, Bangladesh can also challenge its impediment and obtain its proper goal of business opportunities from the experiences of other Asian countries like Japan, South Korea, Singapore, Malaysia, Thailand, China, and Indonesia and India. Additionally, the extant literature shows that by using technology, MSMEs can be improved. Despite the fact that MSMEs are still confronting more challenges which put off them from further escalating their business and justifiable development. Therefore, ICT is today considered as the most important tools to advance diverse businesses and overall economic development.

Thus, the main aim and purpose of this study are to reveal the importance of ICT in developing MSMEs based on the previous success stories of Asian countries. The methodology of this paper is subjective/argumentative research i.e., idea generation for information systems research. This study is expected that integrating ICT, MSMEs can play a better role in economic development utilizing e-Commerce and it

might better explain to establish a model role for the development of Bangladesh.

This paper is divided into six sections. (1) Introduction—describing the importance shortly and general impression of the significant of ICT and e-Commerce in MSMEs and SMEs; (2) Literature review of past studies for MSMEs utilizing SMEs, ICT and e-Commerce in Asian countries (3) Research objectives and methodology of the study; (4) Discussion of the findings and recommendations (5).

II. LITERATURE REVIEW

Bangladesh as one of the least developed Asian countries; dynamic efforts need to speed up of SMEs to achieve the goals set by the United Nations (UN) in the MDGs to mitigate poverty. It is encouraging noting that Bangladesh has made inspiring development towards the achievement of MDGs' by the year 2015 [3].

Many scholars of economics have suggested that SMEs are the critical issues for the development of economies of the world [4]. The SMEs share of total employment in Indonesia 97.20%, Republic of Korea 87.50%, Thailand 77.90%, Vietnam 77% and Japan 70.20%, While SME contribution to GDP in Indonesia 57.80%, Srilanka 52%, Japan 50%, Republic of Korea 49.40%, Vietnam 40% and Thailand 38.70%. Moreover, SME's share of total exports in Japan 53.8%, India 40%, the Republic of Korea 30.90%, Thailand 29.50%, and Pakistan 25% and 20% in the Philippines, Vietnam and Srilanka respectively which are in the leading positions. Whereas at the same time in Bangladesh SMEs' share of total employment is 40%, SME contribution to GDP is 22.5%, and SME's share of total exports is only 11.30% which is comparatively the lowest position than painted all other countries. The detailed scenario of SME's contribution to economic development of Asian countries is shown below in the report of ADB [5].

2.1 SMEs' contribution to economic activities in Asian countries

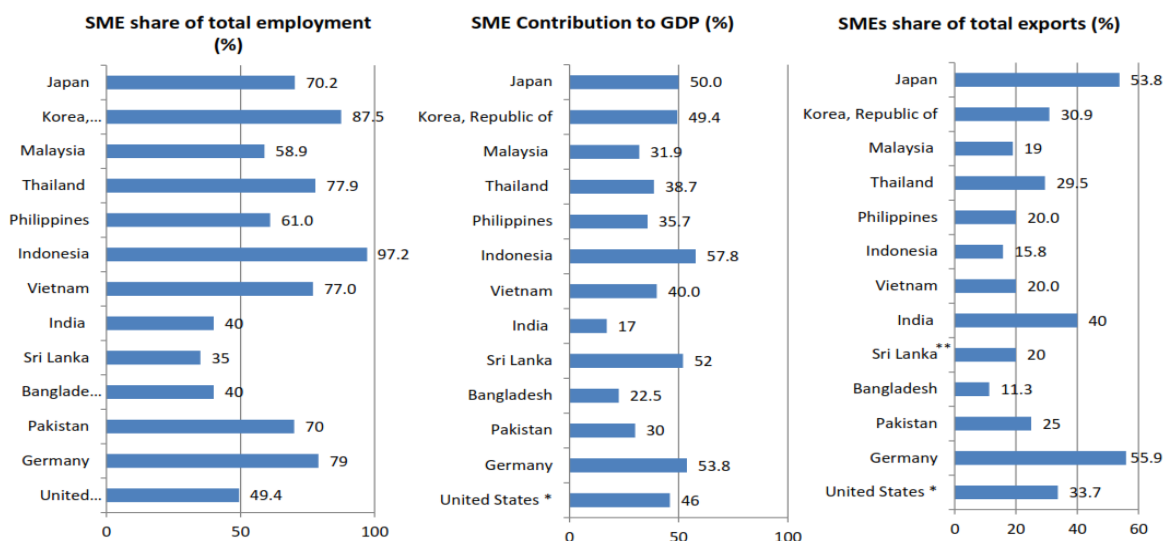


Figure-1: (Source: Report of the ADB Institute on SME's Internalization and Finance in Asia, 2015, extracted)

2.2 ICT for poverty alleviation

The ICT have a great role in developing economic growth by utilizing its big data. The world needs open knowledge repository where people can access to information quickly and very easily at the time of requirement. Because ICT has the problem-solving capability and it enhances overall productivity for socio-economic development. For instance, forecasters, relevant to and work with big data, calculate real GDP based on start-up monthly estimates of quarterly GDP. It is a statistic which is often considerably studied as more data become accessible. Consequently, forecasts drop behind realism. Real-time economic data is most important for economic growth. It can give real information whenever it is required. For example, when people get their business reports of up and down compared to the past year, providing insight into the business market. It can be examined how workers are behaving in their job searches point out their awareness of the labour market's growth with effect for economic development. More specifically, data on employment searches and employment posting can be used to predict job for the subsequent month. This is just one example of prospective sources of real-time economic data. A project for billion prices at MIT measures price increases using real-time data on online purchases from hundreds of retailers worldwide. The Google price index arranges for related information and Google tendencies offer intuitions from internet search data, new data that have been used properly, have the potential to develop economic forecasts [6].

In his opinion [6] quoted "Economist, policy-makers, and business leaders need better data on which to base their forecasts. Fortunately, new sources of information on the economy have recently emerged; the vast collections of private data collected by search engines and other internet companies".

Consistent with the above perception, [5] predicts ICT and quotes that "By 2030, we would be living healthier, more prosperous lives on a greener, cleaner planet helped by robust policies to combat climate change and use precious resources, like water, wisely. That is if world leaders live up to the promise to ambitious development goals to end poverty and hunger, and promote a more sustainable way of life, over the next 15 years".

Moreover, to attain Sustainable Development Goals (SDG) at UN, there must be a push for better data to allow progress to be tracked and leaders to be held to account [5]. Data are most important for business prosperity. Wrong data can help make wrong policy which is dangerous and a great barrier the then business community. The most up to date report of the World Bank says that the 896 million people lived on less than USD 1.90 a day which is compared with 1.95 billion in 1990, and also 1.99 billion in 1981 [3].

Furthermore, ICT can boost economic development and alleviate poverty. In line with this same notion, the World Bank report quotes as "ICT use can become a powerful force in attacking poverty and

helping societies shift to sustainable and consumption patterns. To realize this potential, governments and their development partners, including aid agencies, local business, and civil society, must make ICT a key part of broader and smarter strategies to eradicate poverty and promote equitable and sustainable development" [7].

In addition, a study is conducted by Food and Agricultural Organization (FAO), has presented that women who are intricate in significant ICT schemes, they products outcomes for better economic and social welfare in the community. ICT can provide women with skills, training and market information for their small-scale enterprises. For instance, their knowledge on reproductive health can contribute to women's economic activities by better health and decrease the number of children. In that way, ICT increases their income-earning capability. ICT owns the perspective to recover the lives of people and to pay to social advancement in developing countries. The use of ICT has proved useful in health care delivery, distance education, increasing rural production through right to use to market information, and right to use to finance, encouraging empowerment and contribution in national and international policy developments, enlightening service delivery by governments, enlightening environmental nursing and response systems and easing ecological involvement [8].

Besides, ICT is expected to resolve a diversity of problems ranging from good governance to poverty alleviation from urban to distance rural areas. ICT plays a much more critical role in increasing the actions of the poor people and enhancing their production in the attention of non-stop poverty alleviation. It has been done through boosting their right to use to market information or lowering the transaction costs of poor farmers and dealers. Poor persons usually lack essential resources e.g., good productive resource and capital. Their job status is uncertain and level of income is periodic and inadequate. Poor people live in distant, unhealthy and resource-poor areas i.e., in distance villages and in unspeakable slums. Their poverty outcomes from lack of incomes, poor health and lack of education, lack of social safety-nets and discrimination. The key problems are generally government assistance may not reach the poor people because of suffering from poor government services and corruption, non-existence of political will, poor governance and corruption, unsuitable public rules and programmes [9].

2.3 Importance of internet for business and socio-economic development

As said earlier, ICT has the problem-solving ability for making the proper decision at the appropriate time when needed. The Internet is a great contribution of ICT technology. The Internet is the most wonderful and critical tool for the development of the socio-economic condition of a country which is directly linked to the business community. Every citizen of a country can change his own fate by the utilization of internet appropriately. We can utilize the internet as a successful weapon, in every work of life. It is said that if you have

the internet, the world is in your hand to solve any problem. People can solve problems through the internet and with diverse programming software. Anybody can have any news and information from the internet at any time from every corner of the world. Anybody can make an online survey worldwide within a few minutes. Anybody can take help from an online doctor for his physical illness. Besides, to develop human capital for the new globalized world to challenge 21st century's demand, the internet can be more beneficial for them

who desire to be improved and technically elevated. Thus, the internet can advance the overall quality of life and much more. The Internet is the blessing of ICT that can help people boost business activities. Let's have a look that is the top ten countries of the world and how many people have used the internet in South Asian region until June 30, 2015.

2.4 Statistics of Asian top 10 internet user's countries (Estimate June 30, 2015)

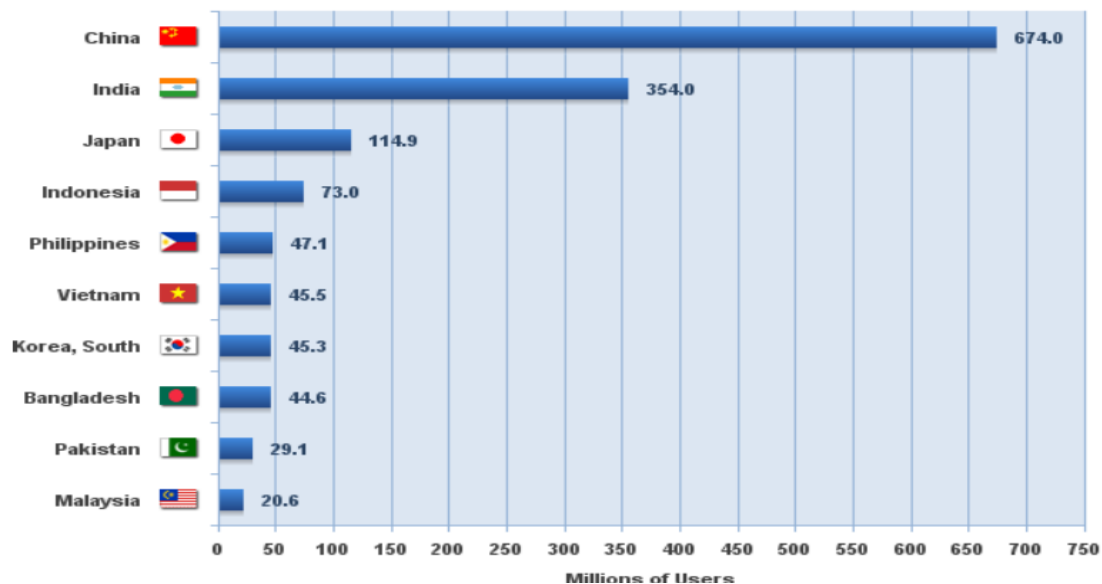


Figure-2: (Source: Internet World Stats-www.internetworldstats.com) /stats3.htm, extracted).

The above estimate of June 2015 of the figure shows that there are China, India, Japan, Indonesia, Philippines, Vietnam, South Korea, Bangladesh, Pakistan and Malaysia are the top 10 internet user countries in Asia. China is ranked 1st(674.0), India is 2nd (354.0), Japan is 3rd (114.9), Indonesia 4th (73.0), Philippine 5th (47.1), Vietnam 6th (45.5), South Korea 7th (45.3), Bangladesh is 8thposition (44.6), Pakistan 9th (29.1) and Malaysia is ranked at 10th in the list. Bangladesh is a better position in using the internet compared to Pakistan and Malaysia [8]

2.5 E-Commerce for economic development and poverty alleviation

Electronic commerce or e-Commerce denotes to a widespread choice of online business activities for products and services. It also relates to "any form of business deal in which the parties interrelate electronically rather than by physical interactions or direct physical contact." e-Commerce enables organization networks, wherein micro, small and medium enterprises depend on business dealing companies for supplies and product delivery to address customer demands more efficiently [3].

E-Commerce plays an important role in economic development for achieving total GDP and poverty alleviation of a country which directly assist to national income involving retail businesses by

MSMEs. The countries of emerging economies in Asia deal with this e-Commerce business and improve their economies. E-Commerce helps the nation to alleviate poverty and boost employment opportunities. In developing countries like Asia, many countries are taking this advantage by selling their home-made diverse manufacturing goods for their overall economic development. E-Commerce is very popular to the customer as a customer can buy their desired goods by using the internet sitting home or office anywhere in the world. Bangladesh is still lagged behind achieving this advantage of e-Commerce for economic development as compared to other Asian countries. However, studies show that presently Bangladesh is very poor for dealing e-Commerce business, although it uses the internet immensely for social media to communicate to others, for example, the Face book, Twitter, Instagram and so forth.

2.6 E-Commerce augments Business efficiency to communicate people without middleman

ICT can be used to enhance efficiency, competitiveness, and market access for the businesses of developing countries. Many global famous business organizations have established an e-Commerce programmes permitting local skilled worker in developing countries to avoid middlemen and to market their products in a straight line to first global customers.

Its success is based on the business development applications that were dealt with in local language and pertinent content (UTI's Net Technologies for Rural Applications, as cited in [9]).

As quoted by [10] "Although China has taken much of the APAC spotlight when it comes to exponentially growing its e-Commerce in recent years, there's plenty to be said on the emergence of South-East Asia's rapidly evolving online space and the myriad opportunities that swift e-Commerce adoption is starting to foster. When one compares it to China or India, South-East Asia's e-commerce landscape may appear to be the poorer cousin, but there are strong signs that give us more than a hint of impending spectacular growth that's waiting just around the corner."

2.7 E-Commerce for business success in Japan, South Korea, China, Malaysia, Thailand, Indonesia, Vietnam, and India

In the Southeast Asian region, China and India are the leading points of e-Commerce business. Asia is expected to be home to over half of the global population by the year 2020 and approximately one-third of the global customer spends. Thus, it's not tough to see the prospective development in e-Commerce over the next few years. This huge and different global mass scopes, a big number of countries. There is north Asia that comprises China, Japan, and Korea with its fast evolving ASEAN economies; and obviously, we cannot omit India along with Pakistan and Bangladesh. South-East Asia region is presently home to approximately 9% of the global population, 7% of the global internet users, 9% of the global social media users, and 10% of the global mobile contributions [10]. Singapore, Malaysia, and Thailand have greater GDP per capita than China, Indonesia, Philippines and Vietnam as catch up with fast (The World Bank, as cited in the website [11]). As [10] explains that –

Per capita payout by Indonesians online is estimated to be US\$239 and rising. Indonesians paid out over \$1 billion online in 2012;

- 1) Online retail sales in Malaysia in 2013 was value US\$250 million, and is anticipated to double over the next 5 years;
- 2) Thailand's e-Commerce market size is estimated at US\$1 billion. It is valued to reach \$6 billion between 2020 and 2025; and
- 3) The Vietnam e-Commerce and Information Technology Agency, states that Vietnam's e-Commerce sales hit \$700 million (\$354 million of that registered officially on VECITA) at the end of 2012.

Even though, the evolution of e-Commerce in the Southeast Asian countries is dropping behind in compared to other developed countries, with more than half of online brands currently is not being able to offer their online products in local currency. At present, 97% of online brands do not have free returns and 91% do not have exchange currencies.

Today, it is not surprising that is earned from advertising, or what can be defined as word-of-mouth

references from family and friends, continues to be the most influential source of advertising among Southeast Asian consumers as per the latest research. There is also a better sense of trust in online advertising. More than half of customers in Indonesia (57%), Philippines (57%), Thailand (56%) and Malaysia (52%) trust ads in search engine results compared to the global average of 48%. Also, online video ads are trusted by about half of customers in Indonesia (52%), the Philippines (51%), Thailand (51%) and Malaysia (50%). Southeast Asian customers even trust owned advertising, taking the form of content and messaging found on brand websites. This trust has increased since 2007 and, exclusive of Singapore, all markets score well exceeding the current global average of 69%. In addition to the Philippines, it is the place for the uppermost level of trust in owned advertising, with more than 4 in 5 (82%) trusting brand websites to be trustworthy (up 11 points since 2007), followed by Thai customers (up 21 points to 76%), Indonesia (up seven points to 75%), Vietnam (up three points to 75%) and Malaysia (up seven points to 72%) [10].

III. RESEARCH OBJECTIVES AND METHODOLOGY

A research approach is designed including IS research strategy, articles documents searching processes, and identification of relevant articles for searching documents on ICT, e-Commerce, MSMEs, and SMEs according to the purpose of the study. The recent pertinent articles seek out by searching in Google and Google Scholar. This study is designed to conduct based on the exploratory research from secondary data collect from previous studies and reports published by the government, the World Bank, the ADB, private, and numerous international organizations for socio-economic developments.

The main purpose of this study is to demonstrate the importance of ICT in developing MSMEs and e-Commerce based on the success stories of emerging Asian countries that can contribute to the state's poverty mitigation and address unemployment in developing country like Bangladesh. This study based on subjective/argumentative i.e., idea generation in Information Systems (IS). The study is expected to extend with a further empirical investigation to validate the research results based on primary data collects from entrepreneurs for diverse business areas in emerging Asian countries.

IV. DISCUSSION OF THE FINDINGS AND RECOMMENDATIONS

This paper discusses elaborately with special reference to other recent pertinent studies on MSMEs, SMEs, important and benefit of ICT for corporations that also uses for business purposes with e-Commerce utilization in various national productivity activities. The

strength of this paper is that it has explored out the real scenario of business progress with the usage of ICT for MSMEs and SMEs and e-Commerce for the economic advancement of neighbouring Asian countries. This study has mostly coped with the research data of the countries like Japan, South Korea, China, Malaysia, Thailand, Indonesia, Vietnam, Philippines, India, Sri Lanka, Pakistan, and Bangladesh.

The findings based on the purposes of this study have revealed passable idea generation in IS research that has seen the sights from recent studies on experiences of promoting MSMEs and SMEs utilizing ICT and e-Commerce in Asian countries; the role of ICT for business success and decreasing poverty, and their contribution to national economic development.

The study reveals that SMEs sector is the major contributing area of business success in the Asian region, where Indonesia is the leading position and Japan, South Korea, Thailand, Vietnam and Philippines are also substantially in the growing level. The author [3] demonstrates that Bangladesh is least developed country and has gained sufficient level of SMEs activities for economic development. This claim, after passing long seven years, is no more acceptable, because of a very recent report of the ADB states that the achievement of Bangladesh in SME's sector is much lower position among other top 8 neighbouring Asian countries. It is noteworthy that Bangladesh is no more least developed country. Rather now Bangladesh is an emerging country in the developing Asia [12]. However, the report demonstrates that SME's share of overall employment of Bangladesh is 40% which is higher than that of Sri Lanka 35%, SME contribution to GDP is 22.2% which is higher than that of India 17%, and SME's share to overall export is 11.3% that is lowest than all other top 10 Asian countries.

Furthermore, the findings of this study have evidenced that ICT can solve the problems of every aspect of human life for organizational and diverse business activities. ICT also help business leaders for policy-making and keeping information for business big data for future forecast. It has also established that ICT is the best business tools that can deal with MSMEs with skilled labour force by e-Commerce. The Internet has a strong role in facilitating business performance. China is the leading rank and India is the second rank for using the internet among top 10 Asian countries and performs better in e-Commerce. However, e-Commerce can lead business without the help of middleman. The study also reveals that utilizing ICT in various sectors along with e-Commerce, it can create new employment and reduce poverty and amplify socio-economic development.

Additionally, the Asian emerging tiger economies countries e.g., Japan, South Korea, Singapore, and Malaysia have developed their overall economies dealing with ICT and e-Commerce for MSMEs and have helped alleviate poverty. However, the findings of this study have presented that Bangladesh is ranked better for using the internet than Pakistan and

Malaysia. Yet, the rank of these two countries for SMEs' contribution to economic activities in Asian countries is better than Bangladesh. Because Bangladesh is ranked better than Pakistan and Malaysia in the usage of internet. Nevertheless, Bangladesh could not achieve sufficient development for the utilization e-Commerce from the benefit of internet usage. Instead, the citizens of Bangladesh use internet for Face book and other social media immensely. This has established that for lack of proper utilization of ICT in businesses, Bangladesh is still not reached the level of acceptance for development from the benefit of ICT for MSMEs. Whereas, there is a great opportunity to achieve business goals with the help of e-Commerce in Bangladesh. Prior researchers expect Bangladesh is a country of the great prospect of e-Commerce and new job creation and increase development alleviating poverty. In the future, an empirical explanatory study will be conducted to validate the present findings of the study. It is hoped that the further study will increase the understanding of MSMEs utilizing ICT in Asian countries and Bangladesh will be benefited hugely. This study on the basis of findings recommends as the followings actions:

(i) It is recommended that the pertinent government departments and agencies should work together with emerging Asian countries (G2G) for the exchange of views and acquire appropriate knowledge with proper initiatives for achieving the goals for utilizing ICT involving e-Commerce in MSMEs. (ii) It is recommended that the government departments with responsibilities for MSMEs should be engaged with top industry, professional and employer bodies to improve a shared understanding of the potential of utilizing ICT involving e-Commerce in MSMEs practices to coherent business performance and employability skills. (iii) It is recommended that government policy should be recognized MSMEs practice as a state strategy to build an integrated relationship between SMEs and ICT – e-Commerce in order to support the business industries and augment the potential for state's overall economic development. (iv) It is recommended that the SMEs sector's stakeholders should be continued to develop the collaborative relationship with partners for research and development due to ensure that features of ICT and e-Commerce taking more initiatives need to improve and implement strategically. (v) It is recommended that the international standards for e-Commerce practices in MSMEs should be adopted as a SME's framework due to facilitate the exchange of information across businesses. (vi) It is recommended that ICT policy for e-Commerce in SMEs' business sector should be recognized the value of MSMEs practice as an antecedent of diverse knowledge that increase the quality of SMEs across the enterprises.

V. CONCLUSION

While ICT helps diverse businesses, increase employment opportunities and elevate development integrating with MSMEs and SMEs in Bangladesh, –

Sharing Asian experiences is an extensive study. It is believed that the data collection activities from previous studies and reports published by the government, the World Bank, the ADB, private, and numerous international organizations for socio-economic developments have effectively captured the views and experiences of the diverse Asian emerging countries. It was engaged in the practice of development of MSMEs issues focus on SMEs, utilization of ICT and e-Commerce to lift up employment and business success. It is acknowledged that the tables and figures presented, represents a snapshot in time and that the interest in MSMEs is developing. The specific range of research methodology was selected in order to ensure the study was as extensive and possible. The strength of these research findings has revealed that there is high level of interest for the ICT and e-Commerce acceptance in MSMEs in the context of SMEs. It is expected that the policy-makers, researchers, scholars and academics of the pertinent areas will be benefited from this study if they take initiatives gaining experiences from the emerging Asian countries. This study might be extended to a further empirical investigation on quantitative analysis.

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