Guiding The Youth Of New Generation With Information Technology (IT) To Increase Smes Productivity In Indonesia

Adelia Hayundari¹, Rahmat Fauzi², Uke Prajogo, S.TP, M.M³
¹(STIE Malangkucecwara, Indonesia)
Corresponding Author; Adelia Hayundari

ABSTRACT: This case was conducted to study the impact of e-commerce on small and medium sized enterprises (SME) in Indonesia, especially in Malang, East Java. E-commerce can be called as one of the most innovative developments of the technological era. Nowadays, young generation already attached to gadget and along with the internet. It would be a waste if they just learn IT without intentional goals. There is a clear indication that SMEs are ready to embrace the new technologies to support e-commerce. Many of the small enterprises have not applied it in their business system yet because of the high competitors and extended fund. But the youth of new generation could help them learn about IT and e-commerce. They believe that e-commerce really will bring a lot of benefits to their business.

KEYWORDS - e-commerce, enterprise, information technology

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I. INTRODUCTION

Nowadays, in this millennium era, teenagers haven’t known a life without technology. It’s been an integral part of their existence, in many cases for the whole of their lives. When something is part of your environment from an early age, you’re bound to adapt to it and embrace it as a perfectly natural part of your life. That’s what the young have done with new technology; young people feel perfectly comfortable with it. Technology is a normal facet in their lives, and they’re fearless about pushing buttons and experimenting. Where older people fear they’ll either break something or change the settings beyond repair, the young understand that everything can be put back the way it was quite easily. Most of young people spend much of their free time on their computers or their mobiles. They’re essential communication and information tools for them. They’ve grown up with computers in schools, and often had mobiles since their early teens or before, so they’re almost extensions of their bodies and lives. So each new advance is just a small step forward for them, something that seems logical.

The advances in technology for consumers aren’t necessarily aimed at young people, but they tend to be the ones who embrace them first. If it’s something new and better (and affordable) they want it. For them, the whole of technology can seem like a giant playground, with its devices like toys to be explored and enjoyed. They’re enthusiastic about technology, even if they don’t realize it. It’s not greed as much as curiosity, want to see what’s out there and play with it. The young and new technology is the perfect combination. As each new generation comes along, used to more advances, that will be even more the case.

Technology has revolutionized the way companies conduct business by enabling small businesses to level the playing field with larger organizations. Small businesses use an array of tech to develop competitive advantages in the economic marketplace. Small business owners should consider implementing technology in their planning process for streamlined integration and to make room for future expansion. This allows owners to create operations using the most effective technology available. One of them that often used now is e-commerce. E-commerce has a chance to be widely adopted due to its simple applications. Thus it has a large economic impact. E-commerce provides the capability of buying and selling products and information on the internet and other on-line service. Electronic commerce or e-commerce refers to a wide range of online business activities for products and services.

1.1 E-Commerce

E-commerce is the activity of buying or selling of products on online services or over the internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. E-commerce really has a significant impact on business costs and productivity. Creating an e-commerce solution mainly involves creating and deploying an e-commerce site. The first step in the development of an e-commerce site is to identify the e-commerce model.
There is no consensus on definition of e-Commerce. Turban, Lee, King, McKay, Lee & Viehland (2008) define e-commerce as the process of buying, selling, transferring, or exchanging products, services, and/or information via computer networks, including the Internet. Turban et al., further distinguishes between Internet and non-Internet e-Commerce. The non-Internet e-Commerce includes for example buying and paying for services or product with smart card through vending machines and/or transactions undertaking via network such as Local Area networks (LAN), using intranets or even single computerised machine. Some researchers see e-commerce in terms of Internet applications, such as intranet, extranet, website and email (Drew 2003). Others view e-Commerce as combinations of business processes and Internet technologies such as interactions with customers and suppliers (Kendall, Tung, Chua, K.H., Ng, C.H.D., & Tan, S.M., 2001).

Electronic commerce, commonly known as e-commerce, consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The World Trade Organization defines e-commerce as, "e-commerce is the production, distribution, marketing, sales or delivery of goods and services by electronic means." The Organization for Economic Co-operation and Development (OECD) defines e-commerce as commercial transactions, involving both organizations and individuals, that are based upon the processing and transmission of digitized data, including text, sound and visuals images and that are carried out over open networks (like, the internet) or closed networks (like, AOL or Mintel) that have gateway onto an open network.

Depending on the parties involved in the transaction, e-commerce can be classified into main 4 models (Shahjee, 2016). These are as follows:

1.1.1 Business-to-Business (B2B) Model
This is said to be the fastest growing sector of e-commerce. The B2B model is predicted to become the largest value sector of the industry within a few years. The B2B model involves electronic transactions for ordering, purchasing, as well as other administrative tasks between houses. It includes trading goods, such as business subscriptions, professional services, manufacturing, and wholesale dealings. Sometimes in the B2B model, business may exist between virtual companies, neither of which may have any physical existence. In such cases, business is conducted only through the Internet. The main two advantages of the B2B model such as it can efficiently maintain the movement of the supply chain and the manufacturing and procuring processes, and it can automate corporate processes to deliver the right products and services quickly and cost-effectively.

1.1.2 Business-to-Consumer (B2C) Model
The B2C model involves transactions between business organizations and consumers. It applies to any business organization that sells its products or services to consumers over the internet. These sites display product information in an online catalog and store it in a database. The B2C model also includes services online banking, travel services, and health information. The B2C model of e-commerce is more prone to the security threats because individual consumers provide their credit card and personal information the site of a business organization. In addition, the consumer might doubt that his information is secured and used effectively by the business organization. This is the main reason why the B2C model is not very widely accepted. Therefore, it becomes very essential for the business organizations to provide security mechanisms that can guarantee a consumer for securing business information.

1.1.3 Consumer-to-Consumer (C2C) Model
The C2C model involves transaction between consumers. Here, a consumer sells direct to another consumer. Online auction websites that provide a consumer to advertise and sell their products online to another consumer. However, it is essential that both the seller and the buyer must register with the auction site. While the seller needs to pay a fixed fee to the online auction house to sell their products, the buyer can bid without paying any fee. The site brings the buyer and seller together to conduct deals. Any buyer can now browse the site of www.ebay.com to search for the product he interested in. If the buyer comes across such a product, places an order for the same on the website of eBay. eBay now purchase the product from the seller and then, sells it to the buyer. In this way, though the transaction is between two customers, an organization acts as an interface between the two organizations.

1.1.4 Consumer-to-Business (C2B) Model
The C2B model involves a transaction that is conducted between a consumer and a business organization. It is similar to the B2C model, however, the difference is that in this case the consumer is the seller and the business organization is the buyer. In this kind of a transaction, the consumers decide the price of a particular product rather than the supplier. This category includes individuals who sell products and services to organizations. In addition to the models discussed so far, five new models are being worked on that involves transactions between the government and other entities, such as consumer, business organizations, and other governments. All these transactions that involve government as one entity are called e-governance.
E-commerce simply means trading or facilitating the trading of products or services using the Internet. Over the past few years, e-commerce, in Indonesia, has grown by leaps and bounds and is envisaged to advance exponentially. E-Commerce provides a simpler way to evaluate the effectiveness of any campaign, introduced by an SME, with the objective of boosting sales. It assists in appraising the success of marketing campaigns, customer engagement programs, pilot projects and more. It also helps in decoding the spending patterns of customers easily; this assists in understanding the customer needs and offering them suitable products every time they visit. E-commerce is an extremely potent tool to attract and retain customers.

### 1.2 Advantages of E-Commerce for SMEs

There is a significant increase in the number of online stores being launched by both large and small enterprises that choose to expand their businesses to the web to gain access to wider markets. The test for internet-based business is not the size or infrastructure surrounding a business, but the ability of the business to deliver quality products, quickly and efficiently to the four corners of the world. It is the perception that the internet can boost sales substantially. There are several reasons entrepreneurs look to the internet to expand their businesses. It offers comparatively low-cost communication with existing customers, promotes the business to countless potential customers and extends business networks across geographical borders. Just as noteworthy is that smaller companies are positioned on an equal footing with larger companies. Add these advantages to more tangible benefits and it makes the internet an even stronger case for small businesses.

- The perception that the internet provides a competitive advantage over others selling similar products but not trading on the internet.
- Savings on communications, traditional advertising and marketing costs
- The creation of a flow of short-term revenue.
- The opportunity to operate nationally and internationally, breaking the automatic limitation of sales imposed on a traditional retail outlet.

Although the benefits to be derived from e-commerce seem to make the medium a must-have for small businesses, there are several challenges that must be overcome. These include:

- Ensuring that you have a professional website that is not only visually appealing but also contains high quality content that is well-written and covers your product offerings as comprehensively as possible.
- Realizing that most search engines use key words and phrases to drive customers to your site, if any of these are missing, hits on your site could be reduced.
- Having a contact system that enables you to communicate with people browsing on your site. Most people will only part with personal information to enable a channel to be created if you offer value-added information for free on your site.
- Closing sales means constantly monitoring your site and answering queries as quickly as possible. There are thousands of small businesses on the internet. Being slow to respond to queries means that potential customers will simply move on to other sites to get what they want.
- Having a secure payment system that minimizes the risk of customers’ personal information being obtained by hackers. A secure server and firewalls to block cyber-intruders should therefore protect your site.
- You will incur ongoing costs for website administration and registration of a domain name.

In many cases, entrepreneurs will not have the technical skills to meet some of these challenges themselves. Getting professional help is a necessity. There is also no guarantee that having a professionally designed and developed site will translate into sales. That’s why, we need the youth of the new generation would likely to help small enterprises to applying e-commerce. So, they can increase their productivity and sells. E-commerce is a way of conducting business over the Internet. Though it is relatively new concept, it has the potential to alter the traditional form of economic activities. Already it affects such large sectors as communications, service, finance, retail trade and holds promises in areas such as education, health, transport and government. The largest effects may be associated not with many of the impacts that command the most attention but with less visible, but potentially more effects on routine business activities. E-commerce presents opportunities to accelerate business processes, reduce costs, reach new customers and develop new business models and markets in the business organization.

### II. METHODOLOGY

For the said present research study is based on the secondary data. Such secondary data is collected from various reference books on E-Commerce, E-Business, Marketing Management, Marketing Research, Mobile Commerce, Internet Marketing, Electronic Advertising, Economics, Commerce, Management, Banking etc. For the said research study the secondary data is also collected from the various National and International Research Books and Journals which are related to E-Commerce, Internet, Commerce, Banking, Management and Information Technology.

The present research study the data pertaining to the following objectives was collected by the review of the literature on the subject concerned. The literature was thus collected by visiting libraries and various
The following is the implementation method (Soewandhi, 2010) which is used to support the realization of this research.

1. **Community Education**
   Providing education to the public in the form of socialization about the introduction of technology and e-commerce can educate partners to be able to understand how technology is applied in the current era of digitalization.

2. **Consultation**
   Discuss about all the problems that are being experienced by partners, ranging from sales, production, limited access and media promotion, but to find the best solution together, which means inviting partners to be active in finding the right solution so that we are able to create and implement the application BY SAM is effective and effective.

3. **Diffusion of Science and Technology**
   Creating an e-commerce system in the form of an android-based application BY-BY SAM as the best solution for partners, which is connected to a 24-hour internet network operated by the admin that has been assisted to be capable and responsive in absorbing and using digital economic technology aimed at advancing partners in power competitiveness.

4. **Training**
   Providing training to partners includes the use of technology in e-commerce systems, assistance that includes courier zones with teaching about the shipping system according to the zone by utilizing STIE Malangkucecwara students as couriers and smartphone / PC usage related to running the application, by utilizing the younger generation of owners centers of souvenirs that have better technology absorption, so as to be able to channel technology habits well, for business owners who lack understanding of technology.

5. **Mediation**
   Become a mediator for partners with other small gift entrepreneurs in order to simplify the sales process as well as to increase the industrial income of typical Malang souvenirs. Starting from tempe chips that provoke the possibility of cooperation with other providers of typical Malang souvenirs, such as fruit chips, fruit juice drinks, and other souvenirs.

6. **Science and Technology Simulation**
   Applying the OLEH-OLEH SAM officially to partners. After that, accompanied by intense mentoring for partners in managing applications until partners are truly able to run a digital economy, so that these activities run optimally. Our application is not limited to the understanding of partners, but up to handling maintenance so that partners are able to be independent in operating the technology.

7. **Accompaniment**
   Providing assistance to partners to be consistent in running applications properly.

## III. ANALYSIS OF RESULTS

E-commerce is conducted using a variety of applications, such as email, online catalogs and shopping carts, EDI, the File Transfer Protocol, web services, and mobile devices. This includes business-to-business activities and outreach, such as using email for unsolicited ads -- usually viewed as spam to consumers and other business prospects, as well as sending out e-newsletters to subscribers and SMS (short message service) texts to mobile devices. More companies now try to entice consumers directly online, using tools such as digital coupons, social media marketing and targeted advertisements.

The benefits of e-commerce include its around-the-clock availability, the speed of access, the wide availability of goods and services for the consumer, easy accessibility, and international reach. Its perceived downsides include sometimes limited customer service, consumers not being able to see or touch a product prior to purchase, and the wait time for product shipping. The rise of e-commerce has forced IT personnel to move beyond infrastructure design and maintenance to consider numerous customer-facing aspects, such as consumer data privacy and security. But we can guide the young generation to be innovative and help the small enterprises to use e-commerce. Indonesia’s Small and Medium Enterprises (SMEs) sector is currently grappling to overcome a host of tough new challenges. This is most notably in the form of rapid technological development and regional economic integration which have loomed over them for many years but has come into sharp focus with the start of the ASEAN Economic Community (AEC). However, with the Indonesian government now more determined than ever to push the growth of SMEs, the sector could be in a position to turn these challenges into exciting opportunities. SMEs are crucial to the economy in terms of sustainable growth and employment. They now face a new reality of being challenged on their home turf through the AEC and thus the requirement to be more competitive and innovative in order to survive.
Indonesia’s SMEs are crucial to the economy in terms of sustainable growth and employment. They now face a new reality of being challenged on their home turf through the AEC and thus the requirement to be more competitive and innovative in order to survive. This new paradigm is an opportunity for international investors to take advantage of and start looking to partner with smaller-sized companies to access sectors reserved for this form of cooperation. In addition, the tide of digitalization will bring about opportunities to work with SMEs for the development of new platforms as well as consulting in areas such as branding and advertising.

Online transactions in the travel and tourism industry are continuously increasing despite tough economic problems in this arena and fewer travelers overall. This industry is the leading application in the B2C (business-to-consumer) arena. Where other industries are displaying a stronger hold to traditional processes, the tourism industry is witnessing an acceptance of e-commerce to the extent that the entire industry structure is changing. The Web is used not only for information gathering, but also for ordering services. A new type of user is emerging, one who acts as his or her own travel agent and builds a personalized travel package. Tourism is an information-based industry it is one of the natural leading industries on the Internet). It is anticipated that most, if not all, sectors in the travel and tourism industry throughout the world will have sites on the Internet; showing the suitable marriage of two of the world’s fastest growing industries: information technology and tourism. E-travel is the leading and fastest growing category of e-commerce. In order to exploit these opportunities in the market environment, tourism businesses have developed and implemented several business models.

E-commerce going to changing as M-Commerce, because mobile is undoubtedly becoming a new way people shopping and mobile banking activities. It may increase strongly without doubt with lot of technological changes. Most of the industries can benefit from technology changes by being in the right place at the right time. Molla and Licker (2005)[7] claim that e-commerce facilitates the growth and expansion of firms in developing countries due to the ability of the Internet and IT to reduce cost of transactions, to eliminate intermediaries and facilitating linkages to the global supply chains.

The expansion and growth can be possible if SMEs in less developed countries can take advantage of Internet technologies to make substantial savings on communication, production process, and delivery of goods and services. One of SMEs in Malang, especially in Sanan really need help to survive in this local competition.

In Indonesia, there is a tradition of giving souvenirs for friends or family after traveling to a place, whether a tourist place or a new place that has never been visited. Own souvenirs can be in the form of goods or food / drinks. As one of the most visited place in East Java, Malang has so many favorite destinations. Malang is well-known as a good producer of tempe and tempe chips sales center. The biggest tempe chips center in Malang is Sanan Village in Belimbing District.

However, unfortunately, the tempe chips industry is increasingly decreasing due to lack of competitiveness. Competitors have high capital, win branding and are in a strategic location. The existence of capitalism also makes it difficult for small industries to have difficulty breathing. The competition becomes tighter because of the many gifted products the artist claims to be authentic Malang souvenirs.

Access to the sales location in Sanan is very difficult due to the narrow road. Consumers must guide the motorcycle into the alley and the car cannot enter. In addition, there is no e-commerce media that supports partners in the sales and marketing process, and there is no direct delivery service to consumers. Seeing the limited conditions, the tempe and souvenir makers of tempe chips became restless. Knowing this, we also made an approach to help partners deal with the problem, and after intensive discussions with partners, it was agreed to work together to advance the gift of tempe chips. Our partners really hope for the right, accurate and easy technology assistance to improve the sales process due to limited economic conditions that they cannot fulfill independently.

Therefore, we raised a solution OLEH-OLEH SAM. Where applied technology we have more advantages than other e-commerce methods and will carry two important aspects, namely online sales applications and courier zone methods that minimize shipping costs and streamline the time of arrival of goods to consumers and also help partners in e- 24 hours of superior commerce in order to be able to compete in the souvenir market in the city of Malang and it is expected that in the future, all kinds of souvenirs can be marketed well by partners and can also help all the centers of Malang’s typical souvenirs.

Gift is something that can not be separated from traveling. Tempe chips are one of the famous souvenirs in Malang which is centered in Kampung Sanan, Kec. Guiding. Almost all residents of Sanan have tempe production businesses, ranging from suppliers, slicer to tempeh chip wrappers. However, with the number of food souvenir businessmen in Malang, the tempe chips gift industry cannot develop well especially if it is only sold traditionally.

Along with the rapid growth of the tourism industry in the Greater Malang area, the gift industry also increased significant sales. However, the level of competition is also high. Partner SMEs are in an alley and do not have current sales outlets. Lose branding, standard productivity, sales and low competitiveness. SME Keripik Tempe Sanan is one of the SMEs that need to be saved. These four aspects really must be overcome.
Based on the facts and discussions with partners, we raised an e-commerce solution OLEH-OLEH SAM in the form of an android-based application that has several advantages as follows:
1. Online sales application. With the help of the application, partners can sell chips via online (24 hours).
2. Courier zone method. This method makes it easier for partners to carry out services between orders for chips directly to consumers.

Creating SAM E-Commerce by SAM for Partners

The expected outcome implementation of the PKM-T is the creation of an android-based application, OLEH-OLEH SAM, which can be applied to the SME Sanan Malang. Where the application, has several benefits that can be enjoyed by partners. By implementing this application, partners are facilitated in making sales transactions because they are done online, a system for calculating the amount of direct sales, and shipping goods orders by courier zone method that works 24 hours.

At this time, e-commerce is needed to support partners in order to survive the tight competition in the typical Malang souvenir industry. Of course, the surrounding community does not want the gift products that claim to be Malang's special souvenirs to become increasingly famous and iconic, even covering the authentic Malang souvenir products. This renewable technology can revive the small industry of Malang's typical souvenirs, which every year is decreasing and unstable.

Even more, online sales applications that are already on the market are common buying and selling sites, in other words traders can sell various items freely and randomly. Unlike the OLEH-OLEH SAM which was created to focus on the typical souvenirs of Malang City, especially in Sanan. This is intended so that the partner's sales process can become more efficient and effective so that the partner's income becomes higher than before. In addition, this special application is also expected to help partners to have high competitiveness.

OLEH-OLEH SAM is very helpful for consumers who need Malang City's special souvenirs, namely Sanan Tempe chips. Without visiting the Sanan area, consumers can place an order through the OLEH-OLEH SAM application and can choose the desired method of payment and shipping. Not only that, reservations can also be made outside working hours in general. This feature is a form of anticipation for consumers who have high activity and do not have time to buy directly. It is intended that consumers really feel satisfied and feel helped when using this application.

Judging from the implementation of E-commerce OLEH-OLEH SAM, here are some important points as plans for the next stage:
1. Evaluation of equipment reliability. Ensure that the equipment is running properly and correctly according to each function. This is done so that the performance of the OLEH-OLEH SAM application runs optimally and can fully support partners.
2. Partner Assistance. Ensure that partners understand well about how to operate the application OLEH-OLEH SAM, so there will be no obstacles. So, partners can maximize the purpose of the application.
Benefits for Partners

Partner SMEs whose initial productivity is low are now increasing after the implementation of OLEH-OLEH SAM, with increase productivity, more sales and can automatically increase the profit value for partner. Partner SMEs also have a very high commitment in participating in a number of trainings. In this case our partner's position is as a participant in the implementation of training activities.

IV. CONCLUSION

E-commerce has received much publicity in Asia. The increase in the publicity is due the potential benefits that e-Commerce applications impact can on business operations. Several studies have shown tremendous benefits that SMEs can derive from e-Commerce usage. The main e-commerce application use by the SMEs is the use of email or social media for communication with customers and suppliers. The main use of websites presence by the SMEs is to advertise their product or services.

E-commerce adoption to include: lack of developed legal and regulatory system, initial investment required for e-commerce is very high, e-commerce security, insufficient knowledge about e-commerce technology, lack of interest by management, lack of right technical skills, resistance by people and culture and Internet security concerns. And some of the main reasons for adopting e-commerce are for expansion and growth, the need to keep up with existing competitors and the ability of e-commerce to improve customer service and help find new customers for the SMEs.

After e-commerce has applied on SMEs business system we can conclude that it really brings benefits to them. Firstly, it makes SMEs productivity keep increasing. With this application, they will earn more profit from higher selling. Second, they can finally gain their brand back to win the high competition, then become a survivor. Third, with the courier zone method, they can deliver their products to the consumers directly. This application makes them easier to do marketing and expanding market.

After implementing this program, the Technology Student Creativity Program team concluded that OLEH-OLEH SAM is an e-commerce that can help partner SMEs whose initial productivity is low are now increasing after the implementation of PKM-T, with increased productivity making sales increasingly increasing, and can automatically increase the profit value for partners.

OLEH-OLEH SAM where our technology is applied we have more advantages than other e-commerce methods and will carry two important aspects, namely online sales applications and courier zone methods that minimize shipping costs and streamline the time of arrival of goods to consumers and also will assist partners in doing e-commerce for 24 hours which is superior to be able to compete in the souvenir market in Malang city and it is expected that in the future, all kinds of souvenirs can be marketed well by partners and can also help all centers of typical Malang souvenirs there is.

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