

# Driving Factors and Developing of the Implementation of E-Business in SMEs

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## ABSTRACT

The research explores driving factors and developing the implementation of e-business in SMEs. This paper discusses the following issues 1. The purpose of e-business implementation 2. Internal and external factors that encourage the implementation of e-business. 3. Problems that developed during e-business implementation 4. Benefits of implementing e-business. Based on the result of FGD with 18 SMEs, it can be concluded that: (1). The main aspects of the most prominent goals are the efforts of SMEs in improving the company's competitive advantage in general from aspects of the results of business implementation on line, improving the quality of service to customers, and increasing the work productivity of the service of company employees. (2). Before implementing SMEs e-commerce must pay attention to several key successes to build it, both by providing complete and clear information on goods and services, and facilitating trade activities and paying attention to problems that will arise from the e-business activities. (3). SMEs have a long-term strategic perspective regarding the implementation of e-business both from the perspective of competition and the survival of long-term SMEs.

**Keywords:** e-business adoption, SMEs, competitive advantage

## INTRODUCTION

At present, information technology, especially the internet, has developed into a new strategy that can be applied by businesses, both large companies and SMEs, to develop their business.

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E-business is one of the information technology-based strategies that can help business people to interact with customers and distribute goods and services to consumers. E-business is the use of information technology, especially the internet, to improve the performance of business processes which include the sale and purchase of products and services through the internet and other social media involving stakeholders. The meaning of stakeholders is consumers, business owners, vendors and suppliers (Raisinghani, et al., 2007).

At present, the use of e-business is not only dominated by large-scale business units, but also micro, small and medium enterprises (SMEs) that begin to utilize e-business strategies as part of a strategy that is expected to improve performance. Information technology is one instrument that is considered capable of increasing competitive advantage in fierce competition (Stale & Majors, 2010). Many SMEs in developing countries in Asia such as in Malaysia (Yee-Loong Chong, et al., 2014) and in Indonesia (Rahayu & Day, 2015) who implement e-business to support business processes and as a strategy in facing competition. The e-business implementation that is widely used by SMEs in both countries is e-commerce. E-business is able to increase the speed of the process of delivering goods, services and information to customers more quickly and effectively (Lu & Liu, 2015). SMEs are able to obtain strategic benefits such as

the integration of business processes from the internal and external sides, increasing market reach, and increasing relations and communication with consumers (Poorangi, et al., 2013).

It is expected that through the adoption of e-business strategies, SMEs will be better able to improve excellence and competitiveness in the market (Pramudiya, et al., 2015). To implement e-business, business people need to ensure that the business strategy they choose supports the application of e-business (Sudirman et al., 2015). SMEs require a framework that can support the implementation of e-business. The right E-business is able to transform the business processes of an organization, which in turn can increase the competitive advantage of the organization (Raisinghani, 2001). This paper explores through the Focus Group Discussion method related to matters relating to the implementation of e-business in SMEs in Indonesia. At present, e-business is one of them realized by developing an e-commerce web that is built on the guidance of the model proposed by Raisinghani, et al. (2007). Another form of application of e-business strategy is to maximize the use of social media. The issues discussed in the discussion with SMEs actors included several aspects including:

1. The purpose of e-business implementation
2. Internal and external factors that encourage the implementation of e-business.

3. Problems that developed during e-business implementation
4. Benefits of implementing e-business.

### Research methods

This research is an exploratory study conducted using Focus Group Discussion. Focus group discussions (FGD) were conducted to explore several aspects related to e-business adoption. There are 18 SMEs participating in this FGD. There are 3 SMEs FGD participants running their business within 1 to 5 years, 9 FGD participants have run their business within 5-10 years. Meanwhile there were 6 FGD participants who had run their business for more than ten years, one of which had even run a business for more than 15 years. From the field of business, the majority of FGD participants engaged in rattan and bamboo wood crafts (8 SMEs) as well as 8 food and beverage businesses. Only 2 SMEs are engaged in textile and clothing leather.

**Table1 Profile of FGD Participants in SMEs**

Dimension	Category	Total SMEs
Company age	a. 1-5 years	3
	b. >5-10 years	9
	c. >10-15 years	5
	d. lebih dari 15 years	1
Business fields	a. Textiles, clothing, leather	2
	b. Wood, bamboo, rattan, crafts	8
	c. Food and Beverage	8
Total participant		18 SMEs

### The purpose of Internet Business Implementation

The first issue discussed by FGD participants was the general objective of SMEs business players adopting technology. The three main aspects of the most prominent goals are the efforts of SMEs in improving the company's competitive advantage in general from aspects of the results of business implementation on line, improving the quality of service to customers, and increasing the work productivity of the service of company employees. Two other reasons for the on-line ordering system are to encourage SMEs to deliver orders to customers faster and be able to meet the demands of modern customers who are more interested in shopping online.

E-Business is also considered to be very easy and economical when compared to conventional businesses using the internet. The internet is one of the most important factors because the internet can interact directly with customers so that the company can understand and know what the customer wants, can create and gather a community of customers who have high appreciation to the company making it easier for get more information about the products offered and at the same time save costs for promotion, can be a liaison with suppliers. The internet enables SMEs to support long-distance transactions so that it becomes more value for the company because there are no boundaries in the area to be able to transact and can increase revenue, and the last to conduct promotions to customers who are all internet users in two directions namely feedback advertise to customers.

**Table2. General Purpose of Internet Business Implementation**

General purpose	Answer Agree
Increasing the company's competitive advantage in general from the aspects of the results of business implementation on line	17
Improve the quality of service to customers	17
Increasing the work productivity of the company's employee services.	16
Meet the demands of modern customers who are more interested in shopping online.	9
Speed up order delivery capabilities	8
Increase marketing reach.	4
Increase market share	
Reducing storage and warehousing costs	5
Improve company competitiveness	4
Creating competitive prices because of efficiency in terms of labor and other operational costs	5
Improve product development orientation.	2

In addition to the above objectives there are several other objectives of the FGD tabulated in Table 3. Of the 6 FGD groups they have different interpretations according to the business experience of the FGD participant groups. The first group has the opinion that by referring to e-business, it is possible for MSEs to become business people with integrated operational and marketing systems so that they can conduct business in a healthy manner and benefit businesses, customers, employees, and the wider community. The second group argued that with the help of information technology it was possible for SMEs to expand and penetrate markets outside the minimum ASEAN countries and expand the market in the domestic market so that products were better known because Indonesian products had good quality at relatively affordable prices.

The third group suggests that implementing e-business shows that the company has the courage of the company to provide guarantees and recognition of its products because of the belief in the quality of the products produced. Furthermore, the fourth group of FGD participants have argued that e-business is a demand for SMEs today and is becoming increasingly important in efforts to keep up with changing times, build customer perceptions about the company and build corporate image. The fifth group has broader insights related to increasing corporate governance in addition to micro aspects in SMEs in an effort to increase productivity, fulfill consumer needs, expand market share. The sixth group of FGD participants inventoried another goal of implementing e-business is to become SMEs to be more technological intensive and reduce employees, enable SMEs in an effort to improve marketing capacity and improve employee work productivity especially related to product distribution and marketing. Almost in harmony with group 3 groups 6 argue that e-business also builds an image as a company that relies on information technology.

Table 3. Other objectives of e-Business Implementation according to FGD Participants Perception

Informant	Other general goals according to the perceptions of Informants in Focus Group Discussion
FGD 1	Become a business actor with an integrated operational and marketing system so that it can run a business in a healthy manner as well as benefit businesses, customers, employees and the wider community.
FGD 2	Penetrating markets outside the minimum ASEAN countries and expanding markets in the domestic market so that products are better known because Indonesian products have good quality at relatively affordable prices.
FGD 3	By implementing e-business shows that the company has the courage of the company to provide guarantees and recognition of its products because of the belief in the quality of the products produced.
FGD 4	Keep abreast of changing times. Build customer perceptions about the company. Creating a corporate image.
FGD 5	Corporate governance improvement. Increased productivity, meeting consumer needs, expanding market share.
FGD 6	Become more technology intensive and reduce employees Improve marketing capacity. Improve employee work productivity, especially related to product distribution and marketing. Build an image as a company that relies on it Information Technology.

**External and Internal Factors Driving Internet Business Adoption and Implementation**

Table 4 shows the results of the FGD's summary regarding external factors driving the adoption and implementation of Internet Business. The first group has experience that in online business orders have increased from various regions so that companies have difficulty making shipments so that without technology and the implementation of the internet business companies must increase overtime work to make efforts to increase their marketing. The second group argues that the internet is very useful in an effort to expand market share and reach global consumers as widely as possible. This simultaneously shows an increase in image in terms of the quality of the product or service offered. SMEs are required to have the ability to compete on a time-based basis, especially those that can be seen directly are the speed of service and delivery.

The results of the third group FGD show that external factors of e-business adoption are changes in marketing media, increasingly complex consumer behavior, the growth of information technology / digital, the development of various new business ventures (start-ups) that change the business competition map and the millennial generation needs good understanding of marketing. While the fourth group highlights the more general external factors, namely changes

in market conditions that tend towards the development of online business, changing patterns of product demand and consumer demands for the speed of delivery. The fifth group is faced with various competitor's efforts in improving the ability of product innovation and service to customers in addition to facing the encouragement of suppliers who expect the company. SMEs also face demands for economies of scale and economic scope and SMEs are mostly still local marketing reach. The sixth group believes that there is pressure in the form of the phenomenon of the increasing role of technology in the fields of accounting, logistics and HR so that UMKS cannot possibly survive in the conventional way, and transactional marketing is increasingly being abandoned. E-Business enables the company to reorganize the marketing function and implement transformational corporate leadership in order to respond to changes in the business environment.

Table 4. External factors driving the adoption and implementation of Internet business

Informant	Faktor-Faktor Eksternal Lain Pendorong Adopsi E-Business Other External Factors Drivers of E-Business Adoption
FGD 1	The number of orders makes it difficult for companies to make shipments so that without technology and the implementation of the internet business the company must increase overtime work to make efforts to increase marketing
FGD 2	Expanding market share by trying to reach global consumers as widely as possible. Image enhancement in terms of the quality of the product or service offered The ability of companies to compete on a time-based basis, especially those that can be seen directly is the speed of service and delivery.
FGD 3	Changes in marketing media, consumer behavior that is increasingly complex, the growth of information technology / digital. The development of various new business ventures (start-ups) that change the business competition map. The millennial generation requires a good understanding of marketing.
FGD 4	Changes in market conditions Changes to product requests Consumer demands on the speed of delivery
FGD 5	Efforts to improve product innovation capabilities and services to customers by participants. Encouragement from suppliers who expect the company. Demands for economies of scale and economic scope. Most marketing ranges, especially small and medium scale are still local
FGD 6	The increasing role of technology in the fields of accounting, logistics and HR E-Business, enables the company to reorganize the marketing function and implement transformational corporate leadership in order to respond to changes in the business environment.



### Problems that Evolve During the Implementation of E-Business

As an SMEs business actor must actively seek the right opportunities to promote its business activities, through e-business or electronic commerce (Billy, et al, 2018) Before implementing SMEs e-commerce must pay attention to several key successes to build it, both by providing complete and clear information on goods and services, and facilitating trade activities and paying attention to problems that will arise from the e-business activities. One form we have to be careful of is fraud that is likely to occur, because the law that is said to be still not strong enough to develop in e-commerce.

Based on the results of discussion of the six groups that conducted FGDs of various SMEs issues faced by business people, among others, were various things tabulated in Table 5. The first group to identify with the implementation of e-business was the increase in costs due to training of employees to adapt to new technologies. Besides that e-business requires time for employees and MSME actors to be able to adjust to new technologies. Some SMEs still encounter defective products that are sent to customers because of the lack of thorough inspection before the goods are sent to customers (Permana, et al. 2017).

The second group explained that with information technology and e-business platforms the company reduced labor. In addition, the cost of implementing technology has increased with regard to training and maintenance, and the shrinking of information technology and the software applied is considered fast. The third group emphasized that e-business SMEs facing resources have not been able to adjust quickly in using technology due to lack of experience and skills. Some SMEs still recognize that information technology is not a guarantee of the company's success if it is not used optimally. SMEs must carry out the process of selecting technology, especially software and business systems that are solid (Ellitan, 2017b). It will be a challenge or danger for the company if knowledge about technology is not accompanied by experience and skills and lack of preparation of HR skills.

The results of the discussion group four have the view that Technology has a trade off with the absorption of workers, but other advantages in using digital marketing on a business or business with a very broad geographical range, make the company must make maximum use of the internet and prepare its HR capacity. The five FGD groups faced different problems in the implementation of e-business, especially in technical matters. SMEs often feel the disruption of the system, especially for computer-based technologies. Developing problems usually revolve around the operation of systems and systems that have been damaged and the occurrence of disruptions in the production process due to lack of prepared human resources and the assessment of technology as assets. In line with groups one and two, group six suggested that sophisticated new technology was not accompanied by adequate human resource skills and high costs to maintain and replace with new technology. Besides that, like the obstacles faced by group 5, group 6 suggests that software / software is relatively difficult to obtain.

Table5. Problems that Evolve During the Implementation of E-Business

Informant	Masalah yang dihadapi Problems encountered
FGD 1	Costs increase because it requires training employees to adapt to new technologies It takes time to adjust to new technology. Defective products are still being sent to customers because of the lack of thorough inspection before the goods are sent to customers.
FGD 2	With information technology and e-business platforms the company reduces labor The cost of implementing technology is increasing related to training and maintenance Depreciation of information technology and the software applied is considered fast.
FGD 3	Resources have not been able to adjust quickly in using technology because of lack of experience and skills. Not a guarantee of the company's success if it is not used optimally The process of selecting technology must be done, especially software and business systems that are solid It becomes a danger to the company if knowledge about technology is not accompanied by experience and skills Lack of preparation of HR skills.
FGD 4	Technology has a trade off with the absorption of workers Another advantage in using digital marketing on a business or business with a very wide geographical range, makes the company must maximize the use of the internet and prepare its HR capacity.
FGD 5	Frequent disruption of the system, especially for computer-based technology. Developing problems are usually around the operation of damaged systems and systems. Disruption in the production process due to lack of human resources and technology assessment as assets.
FGD 6	Sophisticated new technology is not accompanied by adequate human resource skills High costs to maintain and replace with new technology Software is hard to find.

Furthermore, the SMEs group in the FGD identified problem problems that were used as the basis for implementing e-Business. The first group identified that competing SMEs have implemented more sophisticated online business systems. The production process, limited supply, and competition in meeting all consumer needs require companies to use e-business systems to obtain and expand supply networks. The second group argues that the development of information technology, the internet and various software is fast so that competition in the industry is also getting tougher and the perception of customers towards companies with underdeveloped technology has low product quality. The third group stated the results of the reflection by

suggesting that HR in SMEs did not fully understand the usefulness and use of technology. The high cost of implementing technology, the accuracy of software and systems, for example the period of routine inspection / maintenance is also a problem for SMEs. Expert resources in operating and maintaining technology are relatively difficult for SMEs to obtain (Ellitan, 2017a).

Another thing stated by the fourth group in this FGD is that SMEs must do R & D must be carried out consistently, strive to inhibit imitation by other companies, conduct new technology trials even though this still requires time, and maintain the balance of HR empowerment and information technology implementation his business. The fifth and sixth groups are more thinking about the technical problems faced related to efforts to improve quality, efforts to maintain hardware and software and efforts to deal with competition, meet consumer demand, increase productivity and work efficiency. Some SMEs have not met production and sales targets and face a tradeoff between the application of advanced and conventional technologies that have long been implemented.

Table 6. Problems Used as the Basis for Implementing E-Business

Informant	Problems Used as the Basis for Implementing E-Business
FGD 1	Competing companies have implemented more sophisticated on line business systems Limited production and supply processes to meet all consumer needs require companies to use e-business systems to obtain and expand supply networks.
FGD 2	Unprepared company HR The rapid development of information technology, the internet and various software so that competition in the industry is also getting tougher The roast perception of companies with underdeveloped technology has low product quality.
FGD 3	HR does not really understand the uses and methods of using technology. The high cost of implementing technology, the accuracy of software and systems, for example the period of routine inspection / maintenance. Expert resources in operating and maintaining technology are relatively difficult to obtain
FGD 4	R & D must be done consistently Inhibiting imitation by other companies Technology testing still requires time. Maintaining the balance of HR empowerment and technology mplementation
FGD 5	Quality improvement efforts Maintenance of hardware and software Competitors, consumer demand, productivity and work efficiency
FGD 6	Not meeting production targets There is a tradeoff between the application of advanced and conventional technologies that have long been applied Inadequate technology, especially computer-based ones

### Benefits of Adoption and Implementation of E Business

In general, e-Business has various benefits for the company, for consumers, and for the wider community. Generally SMEs provide e-business benefits including: (1). Extending the market to include national markets and global markets, so that companies can reach more customers, choose the best suppliers, and establish relationships with business partners who are considered the most suitable. (2). Suppresses the cost of compiling, processing, distributing, storing, and accessing paper-based information. (3). Enables companies to realize highly specialized businesses. (4). Pressing inventory costs and overhead by facilitating management of the "pull" type chain, whose process starts from customer orders and uses just-intime manufacturing (JIT). (5). Enables companies to implement mass customization of their products and services. (6). Pressing the time between payment and receipt of products / services. (7). Increase employee productivity through business process reengineering. (8). Pressing telecommunication costs. Other benefits, such as better image, better customer service, simpler processes, new business partners, shorter cycle times and deliveries, wider access to information, cheaper transportation costs, and flexibility higher. The internetworking phenomenon forces companies to cooperate with various business partners to be able to offer products or services competitively, so that quality control, price, and speed of the creation of a vehicle or service are often very much determined by external factors that are not within the company's control

E-Business customers allow consumers to shop or make other transactions at any time (24 hours a day) and from almost all locations and provide more choices of products and suppliers to customers. E-Business also allows consumers to get cheaper products and services , because consumers can shop in many places and make comparisons quickly. In some cases in the UMKM shows that products that are digitalized in e-business greatly enable faster and real-time product delivery. However, e-business makes business more competitive because internat and social media allow customers to interact with other customers in electronic communities and exchange ideas and experiences. The internet also facilitates competition that leads to substantial discounts for customers. For the e-business community creates opportunities for more people to work at home and travel less frequently, so that congestion and air pollution can be reduced. Some types of goods are sold at low prices, so they can be affordable for the poor. Not only in Indonesia, in other developing countries people can enjoy relatively rare products and services in their homes, including distance learning through euniversity. E-Business has succeeded in creating ease of delivery of public services, such as health services, education, and distribution of government social services in a cheaper and / or quality manner.

The FGD results show that SMEs have a long-term strategic perspective regarding the implementation of e-business both from the perspective of competition and the survival of long-term SMEs.

Table 7. Benefits of E Business Adoption

Informant	Manfaat-manfaat lain adopsi E Business Bidang Usaha Other benefits of adopting Business E-Business
FGD 1	Sustainability and existence in competition. Information dissemination using Internet media is quite fast and wide. Because of that, marketing using digital media can directly provide a fairly fast effect in the spread of business or business products even in realtime.
FGD 2	Speed up the development of new products Increase work productivity Speed up technology development itself because of the competition. The geographical range is very broad, even almost the whole world can find out information about the business, products and services offered.
FGD 3	Improve service capacity and improve job security. Building partnerships and business networks Using online media, the results of marketing activities that can be immediately known, such as how long the product is watched by potential customers, how many times the product advertised is seen by internet users who are looking for information about the product, and what percentage of sales conversions are carried out. and various other things. Makes it easier for companies to get data in knowing feedback on the quality of company products, services and advertisements.
FGD 4	New innovations, especially machines, make more efficient fuel and energy Speed up process time and process efficiency Speed up new product development Speed up service repair services Through the website, companies can provide complete information to customers about product and service details, addresses, telephone numbers, promo info, and others.
FGD 5	Technology utilization is good Utilization of product quality Improving the quality of labor Repair and maintain machines
FGD 6	Companies can continue to connect with customers without any time limit. The information provided on the website can be accessed by customers whenever internet users visit the company's webpage. To improve service, the company makes it possible to make additional features such as live chat, question and answer pages, and others. Reduces turn over Increase HR specialization Helps increase production standards

## CONCLUSION

This research is aimed at SMEs in Indonesia. Government agencies related to these SMEs should continue to provide support and encouragement for the advancement of SMEs. Especially regarding understanding and training for SMEs to use E-Commerce itself. It is expected that other SME interests, especially the family business, will be even greater for the use of E-Commerce. Providing training and seminars on the use and utilization of E-Commerce for SMEs can be one way to increase understanding and use of E-Commerce. Training and appeals need to be accompanied by providing information about the benefits that will be obtained so that SMEs will be aware of the benefits of E-Commerce in their businesses. Infrastructure support such as faster internet access and can be accessed at any time. besides that training for managers, owners and employees is considered necessary because of these factors besides of course the internet influences the use of E-Commerce in SMEs. Assistance in the form of funds or subsidies for infrastructure related to supporting devices and other things is one of the suggestions from researchers to increase the use of E-Commerce for SMEs. This fund can also be used for E-Commerce development needs themselves. the lack of international trade seems to be related to the development of E-Commerce carried out by SMEs. Where in the development phase one of them is international trade which can be done using online payment methods if the E-Commerce system supports it. The assistance aims to provide opportunities for other SMEs that have not previously used E-Commerce but have products or services with their own potential to be able to penetrate the international market. if this can be maximized the opportunities for Indonesian products from SMEs will become better known in the international market. For SMEs Actors continue to strive to develop and create to develop their businesses. The use of E-Commerce with various benefits that can be obtained will be the right choice for SMEs to be able to develop their business. The allocation of funds, personnel and attention will certainly be proportional to the potential of the results that can be obtained in using E-Commerce. The allocation of funds for development is expected to bring benefits from the use of E-Commerce. With the right development such as payment facilities for the international market, of course, it is expected to be the beginning of Go International's SMEs products.

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