



## E Commerce Implementation in Improving Competitiveness of SMEs of Coffee Product in Ciwidey, West Java

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### Abstract

Coffee is a product with a large interest in the world. One of coffee producing countries and coffee exporters is Indonesia. Indonesia ranks 4th as the world's coffee producer and exporter. One of some area known have the best coffee quality is Ciwidey in West Java Province. However, Ciwidey Coffee SMEs still have problems in marketing their products, resulting in a meaningless increase in terms of prosperity. Some coffee SMEs still sell coffee to collectors at a relatively low prices. This is due to a lack of information on prices competition and a lack of farmers' ability to use e-commerce to increase their competitiveness.

This study aims to find out how far e-commerce is implemented in the coffee business in Ciwidey and what are the important factors in e-commerce utilization to increase the competitiveness of coffee farmers. This study uses a descriptive research method with a qualitative approach. Data collection techniques are carried out through focus group discussion (FGD), interviews, and questionnaires. The results show that e commerce has been used by coffee farmers in marketing their products but is still very limited. The most important factors in implementation are managerial and technical factors

**Keywords:** E commerce, Small business, Coffee

### I. Introduction

Coffee is a commodity that is needed all the time from the past to the present. Coffee as a product whose have a large interest in the world. Indonesia as coffee producer and 4th coffee exporter in the world [1]. One of the provinces known to have the best coffee quality is West Java. In 2017 coffee production in West Java is still not optimal compared to the amount of land used. Based on the results of the West Java coffee symposium and workshop in 2017, West Java Province plans to develop 200,000 hectares of coffee plants. The target of developing coffee plants is Bandung Districts.

Bandung Districts is the largest coffee producer in West Java and has been known by world coffee lovers. Bandung Districts as the best world-class coffee producer and as the main center of coffee production in West Java up to 61%. Based on this, in 2018 the Bandung Districts Government increase its attention to the coffee industry by expanding coffee plantation land and improve the welfare of farmers in Bandung Districts. There are several areas which are coffee plantation areas, namely Banjaran, Ciwidey, Rancabali, Pasirjambu, Kertasari, Cimenyan, and Cilengkrang [3]. The best world-class



coffee producers from Bandung Districts include Pangalengan (Malabar), Ciwidey, Pasirjambu, Cimaung, Ibum and Cilengkrang [4].

In 2016, Coffee Farmers carried out initial exports to Morocco, North Africa, namely Arabica and Robusta coffee types. The group of SMEs managed to export Arabica Java Preanger as a typical coffee from Mount Halu to Malaysia, Singapore, Thailand, Hong Kong, China, Morocco, Korea and Germany since 2012 [6]. Coffee originating from Pangalengan has successfully penetrated coffee exports to Japan and the United States since 2012 [7].

Recently, the log production of Bandung Districts reaches 21,000 tons per year and has been exported to Japan, Australia, Spain and France [9]. The success of each coffee-producing region has not been evenly distributed. The success of Bandung Districts in the field of coffee has not been felt by all farmers and coffee business people [4]. One of the coffee producing areas that still needs to be developed is Ciwidey. There are SMEs groups that still have obstacles so it is difficult to help its members improve their welfare. This is due to a lack of information on price competition and a lack of understanding of the entrepreneur about the importance of cooperatives. Some entrepreneur do not understand the benefit of e-commerce to improve the competitiveness of the coffee business [10].

The development of the internet causes every individual to have the opportunity and ability to interact with other individuals. The business sector is the sector most affected by the development of information technology and telecommunications. Through e-commerce SMEs can have the better opportunities to be able to compete. The competitiveness of the coffee business will be higher if Coffee SMEs is able to develop the use of e-commerce for the business processes [11].

Thorp (1998) believes that the successful implementation of ICT (Information and Communication Technologies) offers the prospect of competitive advantage for both large companies and SMEs, at the local and global level [12]. SMEs that have used the internet grew 46% faster than their counterparts who did not use the Internet [13]. Other studies have also found positive signs that SMEs can take advantage of e-commerce, as a special type of ICT, in helping to grow their business [14] and the potential to be a source of competitive advantage [15]. E-commerce has offered a variety of potential benefits for both SMEs and large companies. The benefits of e-commerce are summarized in the following points [16]: reduction in advertising and promotion costs, speed of communication between buyers and sellers, companies can shorten their traditional supply chains, reduce transportation barriers, and reduce shipping costs.

International Trade Centre (2016) referred to the Organization for Economic Co-operation and Development (OECD), which describes e-commerce as covering the sale and purchase of both goods and services over computer networks. OECD defines e-commerce as the sale or purchase of goods or services, conducted over computer networks by methods designed for receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. To be included are orders made over the web, extranet or electronic data interchange. The type is defined by the method of placing the order. To be excluded are orders made by telephone calls, facsimile or manually typed e-mail.



According to [31], ecommerce implementation must consider an environmental analysis. It's an examines the external environment and internal resources of an organization. External environment consists of social factors, legal and ethical factors, economic factors, political factors, and technological factors. Internal resources involve resource analysis, portfolio analysis, SWOT analysis, demand analysis, and competitor analysis. Specifically, resource analysis is the inspection of the technological, financial, and human resources of an organization and their usage in business processes. Demand analysis is the examination of customer demand for e-commerce services. Furthermore, [18] developed a conceptual model with four factors included in the model, namely, organizational factors (such as user involvement, customer interaction); managerial factors (top management support, IT Manager/Owner knowledge); environmental factors (external pressure, industry competition, external support); and technical factors (technical compatibility, IS expertise, security, cost-benefit, benefits).

Based on [32], there are three core actors in implementation of e-commerce, i.e. businesses, individual consumers and governments, those are: *Business to Business (B2B)* essentially refers to business that is transacted between companies. *Business to Consumer (B2C)* refers to businesses involving businesses and consumers in which the business sells directly to the consumer. The platform for this type of Ecommerce could be for transaction purposes or relationship and brand building. *Consumer to Business* is sometimes known as Customer to Business. This e commerce model involves individual customers offering to sell products and services to companies who are prepared to purchase them. Consumer-to-business (C2B) transactions involve reverse auctions, which empower the consumer to drive transactions. *Consumer to Consumer (CtoC)* is a business model that facilitates an environment where customers can trade with each other (Rayport, 2007). Two implementations of *CtoC* markets are auctions and classifieds a form of advertising which is particularly common in newspapers, online and other periodicals which may be sold or distributed free of charge). Its marketing has soared in popularity with the arrival of the internet, as such Bukalapak, Tokopedia, Shopee and other sites have fostered greater interaction between customers. The social networking sites like facebook, twitter, and whatsapp and other sites. There is also business to government (B2G) activity that refers to the growth in supply of goods and services for online government procurement. Finally, SMEs should not ignore the B2G market.

Although it can obtain attractive benefits for SMEs by adopting e-commerce in their business, SMEs have significant problems in identifying appropriate e-commerce adoption applications and strategies due to lack of knowledge and ICT planning. Therefore, it is not surprising that most SME owners / managers eventually develop their ICT strategies through 'trial-and-error' methods. Most SMEs implement e-commerce by chance, not as a consequence of systematic consideration and planning [[33].

A study on the application of e-commerce by SMEs found that SMEs in developing countries were slower to implement e-commerce compared to developed countries [15, 20]. One of the causes of the lack of speed of the implementation of e-commerce in SMEs in Indonesia because they are more concerned with organizational and managerial barriers [21, 22, 23], other factors that are also significant obstacles to the implementation of e-commerce in SMEs are infrastructure factors and technical [18, 19, 24], environmental factors [18, 25] and technological innovation factors [26]. Besides the problem of the lack of human resources, the range of marketing and media promotion is still limited. HR has not mastered



the use of e-commerce to improve business effectiveness. According to [15] SMEs do not implement e-commerce at the same speed as larger companies because of the various obstacles associated with the unique characteristics of SMEs. Based on the description of the background as described above, the purpose of this research is:

1. Identifying how far e commerce is implemented in Coffee SMEs
2. Identify what factors are important for the implementation of e-commerce at Coffee SMEs

## II. Methodology

The type of research method used is descriptive research with a qualitative approach. The research phase consists of the preparation phase, the data collection stage, the data checking stage, the data analysis stage, and the conclusion stage. Data collection techniques used are interviews and FGD (focus group discussion). Respondents in this study were found with the snowball sampling method [27] which means that the researcher must determine the key respondent first, with the hope that the information flow will increase. Respondents in this study were the owner of coffee SMEs, farmer group administrators, representatives of coffee processors, representatives of observers, coffee product users, and representatives from associations with a total of 15 people.

Before publishing the results of the study, researchers must first look at the validity of the data by checking the data through testing the validity which includes validity and reliability tests. In testing the validity of the data, qualitative research methods use internal validity (credibility) on aspects of the truth, and reliability (dependability) on aspects of consistency. The credibility test (internal validity) is carried out by extending observations, increasing perseverance in research, triangulation, discussion with colleagues, negative case analysis, and member checks. Furthermore, to find out the whole series of studies it is also necessary to test dependability. Dependability of research will not be doubted if researchers can be responsible and systematically describe the entire series of studies that have been carried out [28].

## III. Result and Discussion

Based on the results of the study, several common problems in SMEs are generally experienced by coffee SMEs. Besides the issue of competence, other problems experienced were Coffee SMEs who used technology both in purchasing raw materials, processing, and selling coffee to end users who were not maximized. Even if the problem can be dealt with, then Coffee SMEs can get greater added value by serving the final buyer segment (for example by making a coffee shop or cafe). Most Coffee SMEs have not managed, administered and recorded good accountants. The following are the categories of sales made by coffee SMEs:

Table 1. Area of Sales by Coffee SMEs

No	Marketing and Sales Area	Frequency
1	B to C	60%

2	B to B	80%
3	C to C	60%
4	B to G	0%

Based on the table above, it can be seen that coffee SMEs in Ciwidey make fewer sales to end consumers than sales to companies. The owner of Coffee SMEs have an average high school education and have been actively using e commerce, which is less than 5 years. The use of e commerce mostly still uses Whatsapp, Instagram and Facebook sites. Therefore, the management is still done alone or with the family. The benefits of e commerce felt by coffee SMEs, namely:

Table 2. Type of Benefit from E-Commerce

No	Type of benefit	Frequency
1	Promotion is easier and broader	42%
2	Promotions are cheaper and faster	20%
3	Add relationships or networks	08%
4	Promotions can be anytime	30%
	Total	100%

From the table above it can be seen that coffee SMEs realize the many benefits of implementing e commerce. Based on Duncombe, et al (2006); Victoria (2014) The need for SMEs to consider adopting e-commerce is driven by global, national and regional business trends. Some other drivers are:

1. Cost competition and the need to compete more effectively in both local and exported sectors.
2. Increased customer expectations and consumer power – buyers expecting to be able to access webbased information about products and services, for example.
3. Greater role for information in business and the need to access, process and communicate it efficiently and effectively.
4. Government deregulation and liberalisation – lowering costs of access.

some of the factors mentioned above have encouraged SMEs to utilize e commerce in improving their business performance. However, SME entrepreneurs also felt a number of significant obstacles, as below:

Table 3. The Obstacles that affect the implementation of e commerce

Aspect	Indicator	Description
Organizational	Customer interaction	The market is uncertain / not loyal
Environmental	External	Product legality and certification

Aspect	Indicator	Description
	pressure	
	Competition in industry	1. Similar competitors from the same area 2. Price competition 3. Coffee from abroad is cheaper 4. Tight competition and there are many brands of coffee products
	External support (government)	1. Price of packaging and labels are expensive 2. Lack of training and coaching from government.
Technical	Technical compatibility	Promotions that are less effective
	IS Expertise	1. IT social media lacks mastery 2. Lack of mastering effective marketing techniques 3. Less understanding of the online sales model
Resources	Bean, resources, etc	1. Limited production capacity 2. Production inconsistency 3. Non-standardized products
	Capital	1. Transportation budget 2. Maintenance and fertilizing costs, etc.
	Distribution	1. Expensive transportation costs 2. Distribution path and market path

Based on Table 3 above, in coffee SMEs Ciwidey, the implementation of e commerce has not been maximized and carried out by all SMEs. There are several obstacles so that an important aspect to note (18) includes: Organizational, Environmental, Technical, and Resources. Therefore, the four factors above are important to note so that the implementation of e commerce can maximize the development of coffee business in coffee entrepreneurs in ciwidey.

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