

Building the Success of MSMEs through the Utilization and Suitability of Information Systems

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Abstract. This study aims to model the demographic factors of business actors, the use of information systems by business actors, the suitability of the information systems utilized, and the success of their businesses. This research uses explanatory & research methods. Data analysis was carried out descriptively & verifiably using the Structural Equations Model (SEM) method with the help of Lisrel 8.8 software. The results of this study state that small business actors have characteristics that vary based on demographics, the information system of small business actors has not been optimally utilized, and there is a need for product clustering to increase business success. This research has contributed to business actors' efforts to achieve success. Businesses that are influenced by demographic factors, information systems & product clustering.

Keywords: *Business Actors, Demographic Characteristics, Business Success Information System.*

INTRODUCTION

COVID-19 pandemic requires small business actors to rearrange business strategies and innovate to maintain business continuity [1]. Industrial revolution 4.0 is closely related to modernization, and technological progress is a moment for small businesses to move forward with various innovations to survive and not be eroded by the times [2]. Problems that often arise in small businesses, especially in West Java, include systems and organizational functions regarding

human resource competence and operational processes in converting products, finance, and marketing. Moreover, small businesses are generally constrained by the development and progress of information technology and its utilization. Not a few small business actors think that this is an easy and simple thing. However, technological developments and advances are changing rapidly, so it needs to be strengthened to succeed in maintaining business continuity to gain profit and a good image.

This study aimed to determine the demographic characteristics of small business actors based on various types of businesses in West Java, such as the utilization, suitability, and contribution of information systems at the level of small business actors. The limited use of information systems because they are considered expensive and complicated items by small businesses, of course, needs a solution so that business actors can take advantage of it and reach their progress with relative ease. The utilization of information systems can be measured through system quality, information quality, and service quality, and then the information system is adjusted, which will impact business continuity. Age, gender, occupation, education, geographic location, and social class are demographic characteristics that are likely to be important drivers for small businesses to adopt the importance of information systems [3]. Historically and culturally, the process of converting product inputs into products, the financial function, including the marketing function, is generally not optimal. It is still lagging compared to the actors in medium and large businesses. From these problems, it is expected to provide solutions to the management of small businesses by identifying, mapping, reviewing, and analyzing the factors that impact their business's success. For this purpose, through this research, the goal is to strengthen new theories, methods, or policies for scientific development.

THEORETICAL SIDE

Demography studies statistics and mathematics about population size, composition, and distribution and their changes over time. Amos et al. mention that demographics are parents' gender and work background, more specifically measured by age, gender, occupation, education, geographic location, and social class [4]. The study by Paul Christopher Weber et al. shows that demographic characteristics such as gender differences influence business success [5]. Men and women measure success based on outputs (profits) and inputs (assets and hours worked). However, men perceive success as getting recognition for achievements, whereas women perceive success as achieving what they want. In addition to the gender factor above, this study will also link other factors such as age, education, income, experience, and religion with business success. The purpose of this study was to describe the relationship between demographic characteristics including age, gender, occupation, education, religion, ethnicity, income, family type, marital status, geographic location, and social class with business success in small businesses in West Java.

Just as in large businesses, information systems have an important role in small businesses' organizational management and financing. Good financial management is essential for the survival and growth of a small business. The presence of information systems changes the way business by providing new opportunities and challenges that are different from conventional methods.

Information systems are one of the main pillars of the development of human civilization today, which must be able to provide added value to the wider community, including small businesses that are proven to have contributed to the national economy. Several studies, such as those conducted by Gallegos-Baeza, D; Father, D, show that careless and poor financial management is one of the most common causes of small business failure [6, 7]. As stated by HA, V. D's general belief implies that good management of information systems in small businesses means to control and supervision and a high chance of success [8]. To ensure the success of good financial management, business actors need to be more strategically oriented, which requires improvements in the management of information systems that can open up greater business opportunities. This finding is supported by another study, Al-Rahmi, AM, et al., who found that the use of information technology will improve the company's performance in terms of higher returns on capital and sales per employee so that business continuity is realized [9]. In line with that, Nabavi, A. et al., believe that using information systems plays an important role in the company's success [10].

As expressed by Min, WK, et al, in their study of the influence of information technology factors on the integration of electronic information systems in government organizations, they found that technological factors are very important in ensuring the integration of their use and application. [11]. It was also explained that all technological factors (information system facilities, information technology staff competence, information system integration, user support, and information system structure used in the study) significantly affected the dimensions of Information System integration. Information systems influenced the quality of information systems). Information systems terminology means using information technology in an organization to provide information to users [12]. Salvador & Ikeda state for a company, an information system is a tool that can provide the necessary information to all interested parties [13]. Furthermore, Nabavi, et. al, suggested that to produce useful information for organizational management, it is necessary to have an information system that is very important for the success of an organization [10]. Next, HA, V. D revealed that high-quality information could not be developed without a professional information system and the support of managers [8].

Information Systems

According to Al-Rahmi, AM, et al, the information system can be interpreted as a collection (integration) of the smallest parts optimally related to processing transaction data [9]. An integrated information system is also said to be a combination of several systems into a single unit that supports each other to achieve a certain goal or goal. A model developed by DeLone & McLean has been used extensively in research on integrated information systems [14]. The information system success model is a research model developed to measure the success of an information system based on research conducted [14]. In the DeLone and McLean model or better known as D&M IS Success, the dimensions of success are interrelated, as illustrated in Figure 1:

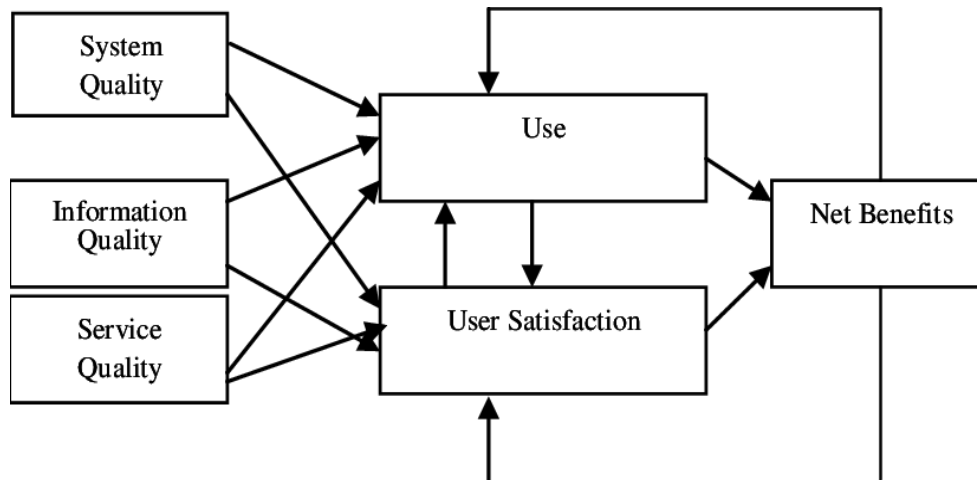


FIGURE 1. DeLone & McLean IS Success Model

Model DeLone and McLean use several dimensions to measure the success of information systems, including system quality, information quality, and service quality. The reason the researcher does not use the user intensity dimension and the net benefit dimension is that in terms of the intensity of the use of the SOP application, small businesses have used it for *entry* of goods transactions, purchase transactions, and sales and marketing transactions, so it can be ascertained that the intensity of using SOP applications is already high. In terms of net benefits from using the SOP application, it is certainly beneficial for small businesses because the SOP application has been used previously for financial activity reports [14].

According to HA, V. D, the information system is to collect and store all data regarding the company's activities in the form of existing resources within the company and all the company's business activities [8]. Information system integration is one solution that can be taken. An organization, especially a small business, needs to immediately create an information system with as few databases and applications as possible or, if possible, create *a single database* and application. Many technologies can be chosen, both *the database engine* and *the front end*. Among *the database engines* are PostgreSQL, MySQL, SQLServer, and others. The web-based *front end* is PHP, ASP, JAVA, and others. The utilization of information systems can result in efficiency and effectiveness in various aspects of information management, as indicated by the speed and timeliness of processing and the accuracy and correctness of the information produced. This relates to computer hardware, supporting application programs (*software*), communication devices, and the internet to manage information.

RESEARCH METHODOLOGY

Method Used

The method used in this research is descriptive and verification. This research is also *explanatory research* or *causal study*, where this study aims to find out which one variable causes changes in other variables [15]. This study can explain how many demographic characteristics and

factors contribute to determining the use of information systems that impact business success in small businesses. The main sources of information that will serve as a reference for this research data and information consist of primary and secondary sources. Primary sources were obtained from in-depth interviews, focused discussions, and direct observations in the field. The secondary data sources are obtained and collected from the compilation and processing of data in the form of research results, scientific articles, publications, and documents related to the object of this research.

Population and Sampling Techniques

According to Sekaran et, al, Population is defined as the whole group of people, events, or things that are interesting to study [15]. Based on this definition, the sample of the population in this study is small businesses under the guidance of the Department of Cooperatives and Small Businesses of West Java Province, as many as 120 small business units selected by *probability sampling technique* using *cluster sampling* at the same time, the unit of observation is small business actors.

Data analysis technique

The data that has been collected from the research process will then be analyzed using the method of *Structural Equation Modeling* (SEM) with Lisrel 8.8 program to test research hypotheses. The stages of the SEM procedure begin with tabulating the data from filling out the questionnaire, then analyzed by the SEM method with the stages of specification, identification, estimation, validity, reliability testing, fit test, and model re-specification.

DISCUSSION

Facts on the ground show that the level of cosmopolitan business actors is quite high, namely actively seeking information, especially using information system facilities through cellular channels or other means, which will increase their ability to sustain information system business. With a sufficiently high level of cosmopolitanism, one will have information and a wider network of partners. Empirical data in the field shows the intensity of business actors in contacting parties outside their community, and the network of business partners is growing. As for the level of motivation of business actors in the use of information systems, it has a direct and real influence on business success, meaning that if the motivation of business actors is high enough to use information system facilities, it is followed by a higher level of business sustainability, but not all respondents experience this. This is based on observations in the field. The motivation of business actors to use information systems is quite high. The more the network of business partners, the easier the intensity of business transactions.

The demographic characteristics of small business actors in utilizing information systems in West Java show that, on average, they have the highest percentage of productive age, namely 26-45 years. The average level of formal education of business actors is up to high school level, while business actors who live in urban areas study up to university, but non-formal education is still in the low category. This is due to the frequency of participation of small business actors

in training activities and the implementation of training in the rare category, which is less than five times a year. The number of owners of information system facilities among small business actors in the low category has average ownership of fewer than five units of information system facilities. The level of motivation and cosmopolitanism of small business actors in urban areas is higher than in districts and the cosmopolitan level of small business actors in urban areas. This is due to the availability of adequate access, consumer behavior of small business actors in urban areas that encourage the behavior of small business actors, and the perception of small business actors in urban areas to be more active in information systems. The demographic characteristics of business actors are improving, and the personal skills and academic abilities will increase the ability of business actors to expand social networks, either through information and communication or technology. This will have a better impact on the aspects of the social dimension as a sub-supporter of a successful effort. Therefore, a well-structured partnership pattern will contribute to the business's success. On the other hand, on the profile of business actors, the level of education, age, gender, occupation, geographical location, and social class that is getting higher will increase the ability to establish better cooperation and partnerships and good communication with the environment, one of which is recruiting employees from local residents. Business actors who live in urban areas show that they have higher education, business actors find it easier to communicate business well, and form associations of business actors and communities to strengthen business networks.

Using information systems for business actors directly has a significant positive effect on business success. The test results show a direct effect that the higher the utilization of information systems, the higher the business's success. The higher the utilization of information systems for business actors in each of their business activities directly, the success of their business will increase. The intensity of the use of information systems will directly affect the business's success. This means that business success is higher if the use of information systems directly influences it. The utilization of information systems is measured by the frequency level of the intensity of the use of information systems and the level of information management of business actors using information system hardware and software with moderate, frequent, and infrequent categories. Facts on the ground show that business actors, namely food processing, convection, and handicrafts in West Java, have the highest utilization intensity on hardware in the form of cellular channel devices, namely cellphones. The intensity of its use is widely used for communication with customers and business partners, searching or browsing information through searching/browsing, managing information, namely downloading images and uploading images, and disseminating information related to their business activities, namely sending information to customers and partners and communities with their business, as well as transacting sales and ordering of goods. This has an impact on increasing income levels and business growth. This is in line with research (HA, V. D; Min, WK, Ku, JH, & Kim, N. J) which shows the use of information systems for e-business portals is widely used for the benefit of marketing activities, business services, especially marketing activities to increase sales [8, 11]. Similarly, the results of Paul Christopher & Geneste 's research also revealed that the use of information system technology in the form of the internet combined with human resources would improve the performance of small businesses, and small businesses in the service sector

will help business actors to get business opportunities to increase product innovation, and improve organizational performance [5]. With the optimal use of information systems, not only in terms of improving the improvement of economic and environmental problems but also social problems, namely the existence of business partnership patterns can also be established and formed through social communication skills by utilizing information systems, one of which is through the use of social media and the internet. Application of technology communication networks between small business actors, the communication network between the business community, customers, and suppliers can run well.

CONCLUSION

The demographic characteristics of small business actors are factors that impact business success through information systems. Business actors at a relatively young age respond more to the usefulness of information systems, and the level of business motivation in urban areas is higher than in districts with adequate support for information systems in urban areas. The success rate of small business actors in West Java is average. Factors that directly influence the level of business success are the profile of small business actors, perceptions of small business actors, and the intensity of utilization of information system facilities. Because from the aspect of the profile, small business actors have a cosmopolitan level, the intensity of business actors in making contact with parties outside the community is quite good, and the partner network is growing. This encourages the intensity of business transactions also to be higher from the perspective of business actors, namely a high understanding of the important role of the use of information systems, especially the use of cellular facilities, the suitability, and ease of use that encourage business actors to use them more intensively. This has an impact on increasing business income, business growth, quality, and competitiveness. As for the condition of the business environment, which is an important aspect of business success, it is still in the low category because small business actors have not prioritized the impact of business waste on pollution in the business environment.

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