

Implementation Of Pre-Order Via Request Item Sales Using Carefully Designed Pre-Sales Steps To Enhance E-Commerce Effectiveness: An Indonesian SME Case Study

Jaswadi^{1*}, Andi Kusuma Indrawan², Retnaning Ayu Dyah Sawitri³

^{1,2,3} State Polytechnic of Malang, East Java, Indonesia.

* Corresponding Author:

Email: jaswadi@polinema.ac.id

Abstract.

Fashion products, which currently dominate the online market in Indonesia as products that are frequently purchased, are in fact not yet facilitated by an e-commerce system that is capable of serving pre-order sales of fashion products at the buyer's request. Therefore, most of the ineffective activities occur in the pre-sales stage because it can lead to long interactions with customers to get the requested information, and sales quotations cannot be processed immediately. Therefore, the purpose of this study is to analyze the quality of e-commerce that was developed specifically to serve these sales through real implementation for Sakinah_id SMEs and buyers who actually want to order product requests. Based on assessments from buyers and MSME employees, the e-commerce used can cut time faster in the pre-sales stage, and delivery of sales quotations can be done immediately to buyers. The durability of shorter service and processing times is felt, especially when the number of orders coming in is large. So that it can help reduce the burden on the employee concerned through the implementation of this e-commerce.

Keywords: *Effective, E-commerce, Products by request and Pre-sales.*

I. INTRODUCTION

The proliferation of information technology that occurs in organizations coupled with the melting of the boundaries between "accounting" and "business" activities has created a world where accounting (influenced by technology) has truly become part of a technology-based business. This convergence between accounting and information systems increases the practical implications that are now being felt (Kelton & Murthy, 2023). Specifically, the presence of e-commerce as a medium or environment that facilitates buying and selling can occur in the virtual world with accounting information systems that play a role in controlling activities through data processing and transactions that occur. E-commerce is widely used by companies to expand their business to an international stage and help developing country markets maintain or increase their revenues and profitability (King et al., 2016; Kobayashi et al., 2014). In particular, e-commerce capabilities reflect a company's strategic intent to facilitate transactions and improve customer service. To some extent, this e-commerce capability should be reflected in the functionality of a company's Web site, capable of reaching customers and serving as a gateway for connecting with customers and suppliers in the internet age (Kalakota & Whinston, 1997). E-commerce is used commercially via the internet, enabling the two-way exchange of real-time information between companies and their customers (Zhu, 2004b). This reflects the power of internet technology, which is able to facilitate informational, transactional, and interactive capabilities for customers across time and space (Brown & Lockett, 2004). Within this environment, resources can be combined and integrated into unique functions that enable specific capabilities within a company (Teece et al., 1997).

Therefore, companies benefit from the internet when embedding e-commerce capabilities into business processes, i.e., through the integration of e-commerce capabilities and IT infrastructure, which can enhance the connectivity and responsiveness of enterprise IS and connect multiple databases, leading to efficiency at lower costs (Zhu, 2004a). On the other hand, e-commerce certainly also makes it easier for buyers, especially in the era of globalization, where many young people like to purchase various types of products online because it is practical and saves time. Through e-commerce websites, interactions between consumers and sellers occur through buying and selling transactions without physical contact between the two parties (Jones & Leonard, 2008; Nilashi et al., 2016). So that effectiveness and efficiency are points of

excellence that can be felt because they adapt to the lifestyle of today's people, who tend to prefer activities that are carried out in an instant way, practically including in terms of shopping. The functionality offered by e-commerce ranges from static information to online order tracking and from digital product catalogs to personalized features tailored to customer needs (Zhu, 2004a). In an e-commerce environment, it is certainly necessary to identify and implement the attributes that consumers find important for a website to be perceived as high quality (Jones & Leonard, 2008; Nilashi et al., 2016). The attributes that make up a high-quality website are seen mainly in the content and design aspects. Content is defined as all the information, types of services, and products offered by a website, and design is the form or way in which content is organized and presented to consumers (Ranganathan & Jha, 2007).

Besides that, the quality of e-commerce is also assessed based on the attributes of fulfilling special needs (Ranganathan & Jha, 2007). Thus, it is very important that e-commerce organizations strive to present an online environment that has characteristics that are considered relevant, trustworthy, and friendly by consumers so as to increase interest in shopping through websites (e-commerce). Communities tend to have a high level of consumption of apparel, so the need to provide apparel commodities is both a demand and an opportunity (Haryono et al., 2016; Permata et al., 2016). Communities tend to have a high level of consumption of apparel, so the need to provide apparel commodities is both a demand and an opportunity (Haryono et al., 2016). According to research initiated by the Indonesian E-commerce Association (idEA), Google Indonesia, and TNS (Taylor Nelson Sofres) (Erlangga, 2014), fashion products continue to dominate the online market as the most frequently purchased products. But in reality, currently only 19 percent, or around 12 million MSMEs, are digitally literate, including convection fashion MSMEs (Lukihardianti, 2021). Yulius, Deputy for Micro Business at the Ministry of Cooperatives and Small and Medium Enterprises, stated that after the COVID-19 pandemic caused global economic uncertainty, it demanded that MSMEs be able to adapt and transform (Kompas.com, 2023). One way is to access and connect with digital ecosystems, including e-commerce platforms. In 2024, the government is targeting as many as 30 million MSMEs onboarding (Kompas.com, 2023). But the problem is that the existing e-commerce is not relevant for MSME convection to use in facilitating the sale of fashion products on a pre-order basis. The unavailability of facilities for the needs of buyer orders, especially based on requests.

Most of the ineffective activities occur in the pre-sales and sales quotation stages. Because it can lead to long interactions with customers to get information (Monk & Wagner, 2013), it causes sales orders to not be processed immediately and has an impact on delaying the next stages in the sales cycle, especially the production process, which cannot be done immediately. Because product stock is not yet available, coordination with the production system is needed to adjust the buyer's request model and must consider the availability of the type and color of cloth that the buyer wants in the seller's warehouse. Like the sale of ordered products in general, range problems occur in pre-sales with incorrect pricing, excessive calls to customers for information, impact on order processing delays, missed delivery dates, and so on (Monk & Wagner, 2013). This condition is the background for the design and development of an e-commerce system that facilitates the pre-sales and sales quotation stages for buyers for pre-order by request products, making it easier for many MSMEs to go digital. The object set is Sakinah_id MSME, which is engaged in the fashion industry, namely the manufacture of clothing and muslim clothing on a pre-order by request basis. These MSMEs have similar problems with issues that are currently occurring in the pre-sales and sales quotation stages. Furthermore, an analysis is carried out based on the assessments received from buyers and employees. The considerations used as an assessment are the features, design, functions, and ease of access of e-commerce so that it can meet the needs of buyers in conveying the desired by requesting product information and easy access to information in real time for employees.

Evaluation of website content and design attributes as a basis for assessing website quality. Besides that, the ease and speed of access to information from buyers by sellers are also considered so that sales quotations or offers can be immediately followed up when potential buyers are, of course, still thinking about the offers submitted. So that the sales order is successfully carried out until it continues at the payment stage. Because it is an important factor in how customers perceive the offer, which is based on product information sources and trust from various sources (Lynch et al., 2001). In the context of consumer behavior, these two

factors refer to the concepts of exchange of information and trust (Arnott et al., 2007) and trust becomes important in e-commerce (Casalo et al., 2011; Chang & Fang, 2013). Web site usability is essential for exchanges to occur and trust to develop (Casalo et al., 2011; Safari, 2012). In other words, it is necessary to provide consumers with a platform (e.g., a website) that enhances purchasing activity (Noh et al., 2013). Therefore, the purpose of this study is to analyze the quality of e-commerce developed for selling pre-order products based on the results of the implementation and evaluation of buyers and processing employees. So that it can be seen how the use of e-commerce designed for pre-order products can help buyers in the pre-sales, order, and payment stages, and SMEs can use e-commerce to solve problems in the process of pre-ordering products that are considered ineffective. The analysis phase is visualized using business process management and notation (BPMN) tools to measure e-commerce quality based on effective business process flow, ease, and speed of access to information.

II. METHODS

This study uses a qualitative method with a case study approach to the analysis of e-commerce implementation, which is designed to overcome problems in business processes at the pre-sales stage of pre-ordering products at Sakinah_id MSME. Sakinah_id, which was chosen as a moving object in the Muslim clothing convection fashion industry. Based on the implementation of trials using e-commerce, an analysis is carried out to determine the quality of e-commerce and whether it can help overcome pre-sales problems, namely that the delivery of product request information by buyers does not take long.

So that, based on the limited trial implementation that has been carried out, further questionnaires are distributed via WhatsApp to each buyer who has used e-commerce to order products. The questionnaire contains an assessment of questions related to design, performance, and customer satisfaction as indicated by the fulfillment of pre-order special needs. The questionnaire uses a Likert scale consisting of 5 options, where for each question or task, the respondent will answer with a choice of strongly agree (SA) with a value of 5, agree (A) with a value of 4, undecided (U) with a score of 3, disagree (D) is worth 2, and strongly disagree (SD) is worth 1. The results of the answers from the respondents were then calculated for each question. The average formula used to calculate the value of each statement is as follows:

$$\text{Percentage} = \frac{S}{\text{Ideal Score}} \times 100\%$$

Information :

P = The percentage value is sought

S = The number of frequencies multiplied by the score that each answer has

Ideal Score = The highest score is multiplied by the number of samples

Besides that, it is also accompanied by three questions asking the duration of the buyer's time in the pre-sales, checkout, and payment stages. Then I conducted interviews with employees who conducted e-commerce trials by emphasizing time effectiveness and ease of access to buyer pre-order data information in real time so that sales quotations or offers can be immediately followed up while the prospective buyer is, of course, still thinking about the offer submitted so that it can continue at the sales stage order until the payment process

III. RESULT AND DISCUSSION

Developed Pre Order via Request Product Sales E-Commerce System

Based on the problem of pre-order by request sales, it often occurs in the ineffective pre-sales stage, where the interaction of buyers and sellers at that stage takes a long time because the buyer, of course, still provides detailed information on the model of the clothing product according to the request. This condition is not too influential if transactions occur in small quantities, but it will appear ineffective if in a day many buyers queue to order products by request, causing problems, namely that not all sellers can respond because of insufficient time, so they can provide an unfavorable domino effect in later stages. This includes sales

quotations that cannot be made immediately. So an e-commerce system was created with an electronic form feature that facilitated the pre-sales stage and submission of sales quotations to buyers for pre-order by request. The following is a display of the electronic form features presented in Figure 1.

The screenshot shows a web form titled 'Kategori : Perempuan (Anak-anak)' and 'Form per category'. It includes several interactive elements:

- Fabric colors available:** A grid of color swatches for selection.
- Choice of accessories:** A grid of small images representing different accessories.
- Examples of images of suitable Arab-style shirt models:** A section showing various shirt designs.
- Textbox to write the color of the fabric and accessories:** A text input field for specifying colors.
- Size options available:** A dropdown menu for selecting sizes.
- The selected quantity textbox:** A text input field for entering the quantity.
- Textbox for writing detailed descriptions of models that can be ordered:** A larger text area for providing details.
- Upload a picture of the Arab-style shirt model:** A file upload button labeled 'Choose File'.

Fig 1. Product Model Forms

Based on these features, buyers can fill in the requested clothing model data. The form is designed to facilitate and accommodate all requested product information, with the availability of features that facilitate the delivery of information so that the pre-sales stage is more effective. So that excessive calls to buyers to get product information can be minimized by the presence of a form in the e-commerce system. Submission of sales quotations (price offers) can be done immediately. Besides that, the design and form features are designed to suit the needs of buyers who want to order products uniformly or individually based on each age category. Consisting of age categories for children (girls) and adults (both boys and girls). As digital technology has improved significantly over the last decade (Mehta & Hamke, 2019), contemporary digital sales channels provide a substantially expanded functional scope compared to earlier applications. One of them can be seen in the development of e-commerce, which has a broader function, namely facilitating features that facilitate pre-order by request sales. Furthermore, in Figure 1 of the form for each category, facilities are provided to support product ordering, including the type and color of the fabric and accessories to choose from, as well as facilitated textboxes that make it easy for buyers to write down. Then there is a size selection feature that can be selected.

The form is designed in such a way that buyers will not be confused when using the features available in e-commerce. Chau (2000) explains that the mode of presenting information, or the user interface, is important in online shopping. Because ordering pre-order products, which are more complex buyer requests, certainly requires features that suit their needs and don't confuse buyers. Because problems related to confusing content in website design and technicality are common problems that are often encountered (Mou et al., 2019). Buyers with complex needs certainly demand that orders be adjusted individually so that they require consultative sales and special sales media (Bongers et al., 2021). After the form has been completely filled in according to the buyer's needs, it can be automatically sent to the product design email. This form is specifically designed to be directly connected with the authorized department, namely the designer, so that a sales quotation can be immediately calculated and submitted to the buyer. The hope is that the process carried out can be more effective.

Sales quotations that have been uploaded by designers to the e-commerce system are, of course, designed taking into account the limited access rights arrangements for the buyer concerned. So that the sales quotation link and access password are sent to the buyer via WhatsApp. Based on Figure 3, the initial view of access is seen as providing security and protection functions for the interests of the buyer concerned so as to avoid being accessed and the checkout process by other buyers. Content features designed must be personalized, easy to operate, and secure (Lin et al., 2021). So that only the buyer concerned can access

using the password provided in order to maintain the buyer's privacy and trust. In addition to online vendor interfaces, customer trust also plays a key role in decision-making at various stages of the buying process (Chau et al., 2007). Because it is very important now and in the future, the quality of services and systems must be consistent in business, including e-commerce, to maintain buyer trust (Mou et al., 2019).

Konten ini dilindungi dengan sandi. Masukkan sandi Anda di sini untuk menampilkannya:

Sandi:

Fig 2. Initial Display of Sales Quotation Requires Password to Access



Fig 3. Sales Quotations View

Besides that, Figure 3 shows a sales quotation display that was successfully accessed by the buyer, which provides down payment information that must be paid as well as an explanation of the description of the product data that the buyer has input on the previous product's electronic form. At this stage, the buyer can consider the offers given on the e-commerce display that is accessed. Buyers who agree can immediately proceed to the product checkout stage, such as the ready-stock product procedure, and payments can be made immediately. Furthermore, the buyer's data is automatically entered into the sales administration system so that the sales administration staff can immediately change the "processing" status of the product. Besides that, the design department can also access data on changes to the order status in the system. Based on the change in status, it will inform the buyer if the sales quotation submitted by the designer is approved by the buyer and indicate that the production process can be carried out immediately. If the buyer does not agree to the sales quotation and wants to cancel, then there is no need to continue the checkout stage. The following is the flow of business processes from e-commerce that was developed by depicting them using Business Process Modeling and Notation presented in Figure 4.

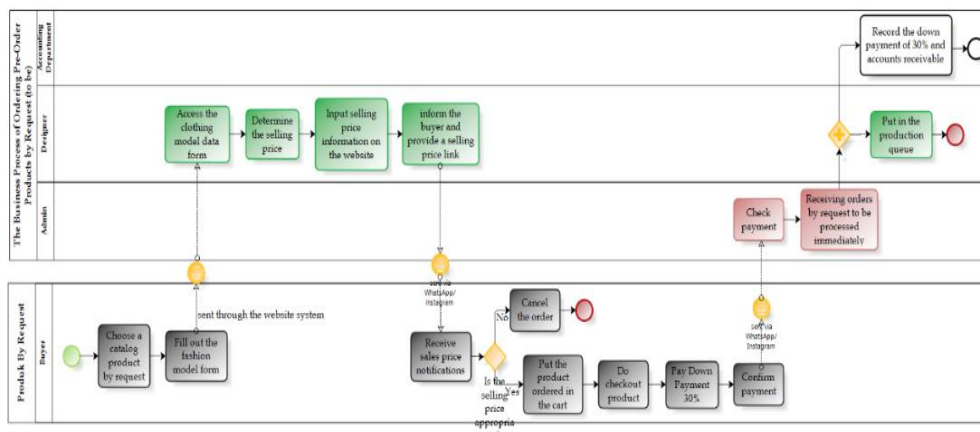


Fig 4. Business Process Design for Ordering Products Pre Order By Request in E-Commerce

The presence of e-commerce greatly supports the competitiveness of companies and gradually becomes a mechanism to replace many economic activities carried out within the company, and its functions in processing effective information are becoming increasingly clear (Skare et al., 2023). Specifically, the development of this e-commerce model in order to achieve effective time at the pre-sales stage by providing an electronic product model form feature that can accommodate information input by the buyer, which will be linked to the design section's email. Submission of information directly to interested parties is an important point in effective time because it can be accessed immediately and immediately followed up by the next process. In accordance with the statement of Mou et al., (2019) well-designed e-commerce can certainly convey information more effectively, increase organizational efficiency, and facilitate indirect activities from organizational routines. Considering the well-known theory of IS (Information System) effectiveness, the IS success model proposed by DeLone & McLean (2003), includes information quality, system quality, and service quality as the three main dimensions that determine user satisfaction, intention to use, and benefits.

Therefore, developed e-commerce is slightly different from e-commerce in general because it includes the design part of granting access rights. The aim is to simplify the flow of business processes by conveying information directly to the authorities so that the selling price calculation can be done immediately. Because organizations that want to focus on service orientation must face change, and importantly, when business services are adapted due to changing business needs, business processes must also be adapted (Plugge et al., 2020). In accordance with the statement of Zwass (2003) which highlights the importance of e-commerce in organizational innovation, for example, business process transformation, The model designed is important to highlight the resources offered on their website to help users get the information they want (Daries et al., 2021). The adoption of e-commerce in terms of the use of business activities provides convenience in exchanging business information, purchasing and selling products, services, or information, and delivery and marketing through Internet applications (Daniel & Wilson, 2016; Lertwongsatien, Wongpinunwatana, 2017; Rao, Metts, & Mora, 2014; Raymond, 2015).

Buyer's Assessment of the Implementation of By Request Product Purchases through E-Commerce

Based on the limited trial implementation that has been carried out, 50 questionnaires have been filled out by buyers who have purchased pre-ordered or requested products through e-commerce as a form of assessment that is felt during the purchasing process. Data from the buyer's questionnaire as an acceptance test were analyzed based on existing indicators and scales.

Table 1. User Test Results by Buyers

Test Type						
Application view						
Number	Statement	SA score 1	A score 2	U score 3	D score 4	SD score 5
1	Attractive e-commerce display and design					50
2	Menus or features available in e-commerce are easy to understand					50
Application performance						
3	The existence of e-commerce makes it easier to access the product information needed					50
4	The application that is run is easy to use (user friendly), especially with the facility of a clothing model form				2	48
Testing user satisfaction with the application						
5	The application already supports the purchase of goods				1	49
6	The use of the system is effective and easy to run starting from the stage of filling out the clothing model form, checkout to paying for pre-order products				9	41
7	Then intend to buy Sakinah_Id clothes using this application				16	34

Rating on the type of display, namely 100% of buyers said they strongly agreed for an attractive design statement and available features that were easy to understand. The electronic form of the product model is designed in such a way as to make it more attractive to buyers. Where design and appearance will influence consumer shopping behavior so that it raises the intention to shop. Because when buying and selling transactions occur through e-commerce, buyers cannot see the physical appearance of the product, they cannot make an assessment, so instead of being offered, buyers can only evaluate the features and design of the e-commerce. In their research, Ranganathan & Jha (2007) show that consumers pay attention to the important attributes of websites, especially in relation to the attributes of quality, design, and content, as evidenced in a study by (Jones & Leonard, 2008). So that the appearance of the design and features is one of the prerequisites considered by the buyer. Assessment of application performance for point 3: 100% of buyers said they strongly agreed to the statement that the existence of e-commerce makes it easier to access the required product information. That is, the sub-menus on the electronic form are, of course, accompanied by information or explanations that make it easier for the buyer to determine which option to choose. This information is particularly relevant because of the inability to physically evaluate and touch products as purchases are made online, and in this way it fulfills the information needs of online purchasing consumers (Fiore et al., 2005).

The product area usually contains visual and textual information (Chocarro et al., 2022). It can be seen if this application meets the quality of information needed by the buyer so that the buyer is able to convey the requested product model information. Then point 4, namely 99.2% of buyers, said they strongly agreed with an application statement that was easy to use (user-friendly), especially with the clothing model form facility. Ease of access to the information needed as well as the existence of facilities that support activities or transactions and ease of use are important things that are sought after and needed by today's buyers, who want everything practical, fast, and as expected. According to Thongpapanl & Ashraf (2011), Wang et al (2015) it is very important that e-commerce organizations strive to present an online environment that has characteristics that consumers consider relevant and friendly so as to increase interest in continuing to explore the website so that it can influence purchase intentions and decisions. Rating on user satisfaction with the application for point 5, namely 99.6% of buyers said they strongly agreed that the application had supported the purchase of goods. Where the application has been facilitated by features that facilitate the pre-sales stage, the stages of submitting sales quotations, the product checkout menu and payment, accompanied by a description of information that makes it easy for each stage. Then point 6, namely 96.4% of buyers said the use of the system was effective and easy to run starting from the stage of filling out the clothing model form, checkout to paying for pre-order products.

Because the e-commerce system is designed to overcome problems in the pre-sales stage and include designers in the e-commerce system to adjust the business processes of selling products by request. In ideal conditions, effective communication is very important in organizational collaboration, where selling by request requires interaction with the production department so that it involves the designer. The effect of information sharing, which is used to increase competitive advantage in the context of commercial firms (Fowler & Pryke, 2003). Then point 7, namely 93.6% of buyers said they strongly agreed to the next statement intending to buy Sakinah_Id clothes using this application. It can be seen that based on an attractive design, features that can meet needs and are user friendly are very important in providing satisfaction for buyers and it can be seen that after buyers make purchases on e-commerce, 93.6% of 100% answered intending to buy clothes by request at Sakinah_Id because of the available electronic form features. So that buyers can save their time without having to do a lot of interactions in delivering product data information to sellers via chat because they have been able to fill in the features that have been provided. Therefore, for businesses to operate in an online environment, we need to identify and implement attributes that consumers think are important for a website to be perceived as high quality (Nilashi et al., 2016).

Besides that, based on the short answer questions from the questionnaire, most of the respondents answered that the time needed to fill out the clothing model form ranged from 10 minutes to 15 minutes.

This designed e-commerce system is able to streamline the pre-sales stage and does not require a lot of interaction between the buyer and the designer in conveying the requested clothing model information because it has facilitated the needs of the buyer. Then the waiting time required to receive information on the selling price (sales quotation) of the product based on the submitted clothing model form data ranges from 15 to 20 minutes. So it seems that it doesn't take long for buyers to wait for a sales quotation for the selling price offered; most likely, the buyer will certainly consider and accept the selling price offered. Then it will proceed to ordering products by checking out products and making payments. Then the time required from checkout to payment transfer takes 5-7 minutes. With the implementation of e-commerce, it assists buyers in conveying information on the design of the desired clothing model, namely by providing electronic form features so that the pre-sales stage will run more effectively and efficiently.

Designer and Sales Administration Staff Assessment of the Implementation of By-Request Product Purchases through E-Commerce

Then the data from the assessment results that have been collected through interviews with sales administration staff and designers as parties who directly process pre-order products through e-commerce can be concluded:

1. Eliminate duplication

In the analysis of system implementation, the new business process is proven to be able to eliminate duplication of information delivery in the pre-sales stage. Here are excerpts from the statements from the administration staff and the design departments:

"Yes, I feel that having an e-commerce system like this helps when the buyer submits the requested clothing model. In the past, I still informed the designer about the model the buyer wanted. through my intermediary to convey to the buyer. Then my position as an intermediary connecting buyers and designers will continue until a selling price is decided." If there is a form feature, it makes it easier because the information goes directly to the designer's email, so it doesn't take long for the submission of this information. If the buyer feels that they are suitable, they can immediately checkout and pay the down payment." (sales administration staff)

"So having this e-commerce system makes it easier for me to quickly find out what kind of clothes the buyer requests so that I can quickly determine prices without going through a sales administration staff. The previous system needed a long time to wait for product model data because the pre-sales interaction between the sales administration staff and the buyer was carried out via WhatsApp or Instagram direct messages. So there are several steps that must be followed when calculating the selling price because initially the information was received by the sales administration staff first and then forwarded to me. So it's not effective, especially since there are still consulting services if the buyer is confused about the model and material." (designer)

It can be seen from the excerpt from the statement of the sales administration staff and the designer section that previously the buyer conveyed information on the clothing model requested via WhatsApp or Instagram direct message to the sales administration. Furthermore, the sales administration staff forwards the buyer's information to the design section, where the design section will provide recommendations on several types and colors of fabric that are recommended to the sales administration staff to be conveyed to the buyer. Then the type and color that the buyer has decided to inform the sales administration staff. Furthermore, the sales administration staff will forward this information to the designer to calculate the selling price and submit a sales quotation. However, with the availability of an electronic form feature, buyers can directly fill in the desired clothing model data and connect to the designer's email without going through sales administration staff intermediaries. The duplication of submitting buyer information can be eliminated so that the sales quotation process can be made immediately and sent to the buyer. Sales administration staff and the designer department agree with the elimination of duplication of information delivery in this pre-sales stage.

2. Simplification

In the analysis of system implementation, based on the administrator's statement and the design section explaining that e-commerce can simplify several stages of activity, Here are excerpts from the statements from the administration and the design departments:

"Yes, because this system helps eliminate duplication in conveying information in the pre-sales stage, of course it also automatically helps simplify the stages to make them more concise because there are parts that are removed and to the point of conveying information on clothing models to designers, so I just check the proof of the transaction that was sent without creating a form manually for the model the buyer wants to submit to the design department." (sales administration staff)

"I agree that in the process that was tested yesterday, there is a process of simplification while at the same time eliminating repeated delivery of buyer information, so electronic forms, besides eliminating duplication, also simplify the pre-sales stage." (designer)

This simplification of pre-order products includes reducing the activity of conveying information that should be directed directly to interested parties and also simplifying sales administration staff activities, namely the need to make clothing model forms to be submitted to designers. Besides that, it also removes product order interaction activities between buyers and sales administration staff because e-commerce has facilitated these orders.

3. Large scale repair

In the analysis of system implementation, based on the sales administration's statement and the design section explained that e-commerce can improve MSME business processes on a large scale.

"Because previously the process was carried out on a manual basis in processing buyer orders for pre-orders, and sales were still via WhatsApp or Instagram direct messages, there was no menu feature that accelerated the process or special templates, resulting in an unorganized, ineffective, and time-consuming process. Then switching to e-commerce-based, it feels like if the process flow has been structured, the pre-order sales process flow has also changed to be more effective and can cut the time to not be too long." (sales administration staff)

"For pre-order products, it is clear that there are many improvements. I see there is a simplification of the process when the buyer conveys the desired model information; that is, it is no longer through the sales administration staff but directly to me by filling out the form provided, and I also don't need to send data on the type and color of the fabric because buyers can already choose through the website. So I only calculate the selling price and inform the buyer. So the process has been carried out more effectively and quickly." (designer)

With the change from business processes that were carried out manually to system-based, of course, there were large-scale improvements, namely the elimination of activities that caused duplicate information to be eliminated, the simplification of stages by eliminating unnecessary stages, several changes to the stages of business processes, and reducing cycle times. It can be seen that there has been a large-scale improvement, namely a change in the pre-order product business process, which has become more effective by simplifying the pre-sales section. The Following is a Trial of the E-Commerce Application by Sakinah_Id Employees, Presented In Figure 5.



Fig 5. Trial of the E-Commerce Application by Employeess

IV. CONCLUSION

This research contributes to the development of web services designed to solve problems in the pre-sales stage, which are often ineffective in selling pre-ordered products at the buyer's request. So a pre-order by request feature is needed in e-commerce that facilitates the delivery of buyer information at the pre-sales stage because most e-commerce sites in Indonesia do not yet provide this feature. Based on the assessment of the questionnaire received from the buyer, it was found that the electronic form feature provided was able to facilitate the delivery of the desired product model information and, according to the needs of each buyer, there were features that were designed in such a way and supported it. Broader benefits will be felt by MSMEs, namely the durability of service time and shorter processing times, especially when the number of orders coming in is large. So that it can help reduce the workload of sales administration staff and designers through the implementation of this e-commerce.

REFERENCES

- [1] Arnott, D. C., Mukherjee, A., & Nath, P. (2007). Role of electronic trust in online retailing. *European Journal of Marketing*, 41(9/10), 1173–1202.
- [2] Bongers, F. M., Schumann, J. H., & Schmitz, C. (2021). How the introduction of digital sales channels affects salespeople in business-to-business contexts: a qualitative inquiry. *Journal of Personal Selling and Sales Management*, 41(2), 150–166.
- [3] Brown, D. H., & Lockett, N. (2004). Potential of critical e-applications for engaging SMEs in e-business: a provider perspective. *European Journal of Information Systems*, 13(1), 21–34.
- [4] Casalo, L. V., Flavian, C., & Guinaliu, M. (2011). The generation of trust in the online services and product distribution: The case of Spanish electronic commerce. *Journal of Electronic Commerce Research*, 12(3).
- [5] Chang, Y. S., & Fang, S. R. (2013). Antecedents and distinctions between online trust and distrust: Predicting high and low-risk Internet behaviors. *Journal of Electronic Commerce Research*, 14(2).
- [6] Chau, P. Y. K. (2000). Impact of information presentation modes on online shopping: an empirical evaluation of a broadband interactive shopping service. *Journal of Organizational Computing and Electronic Commerce*, 10(1), 1–21.
- [7] Chau, P. Y. K., Hu, P. J. H., Lee, B. L. P., & Au, A. K. K. (2007). Examining customers' trust in online vendors and their dropout decisions: An empirical study. *Electronic Commerce Research and Applications*, 6(2), 171–182.
- [8] Chocarro, R., Cortiñas, M., & Villanueva, A. (2022). Attention To Product Images in an Online Retailing Store: an Eye-Tracking Study Considering Consumer Goals and Type of Product. *Journal of Electronic Commerce Research*, 23(4), 257–281.
- [9] Daniel, E., & Wilson, H. (2002). Adoption intentions and benefits realised: a study of e-commerce in UK SMEs. *Journal of Small Business and Enterprise Development*, 9(4), 331–348.
- [10] Daries, N., Cristobal-Fransi, E., & Ferrer-Rosell, B. (2021). Implementation of website marketing strategies in sports tourism: Analysis of the online presence and E-commerce of golf courses. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(3), 542–561.

- [11] DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19(4), 9–30.
- [12] Erlangga, M. (2014). *idEA: Nilai Pasar E-commerce Indonesia Diprediksi Capai \$25 Miliar di Tahun 2016*. Retrieved from <https://dailysocial.net/post/idea-e-commerceindonesia->
- [13] Fiore, A. M., Hyun- Jeong, J., & Jihyun, K. (2005). For fun and profit: Hedonic value from image interactivity and responses toward an online store. *Psychology & Marketing*, 22(8), 669–694.
- [14] Fowler, A., & Pryke, J. (2003). Knowledge management in public service provision: The Child Support Agency. *International Journal of Service Industry Management*, 14(3), 254–283.
- [15] Haryono, T., Handayani, R., Khoiriyah, S., & Sugiarti, R. (2016). Akselerasi Bisnis Konveksi Batik Melalui Manajemen Industri Kreatif Di Surakarta. *Cakra Wisata*, 17(1), 1–19.
- [16] Intan, R. P., & Daga, R. (2021). Analisis Bisnis Model Kanvas Produk Hijab Online Shop (Studi Kasus @Needhijab.Mks). *Jurnal Manajemen Perbankan Keuangan Nitro*, 4(2), 71–86.
- [17] Jones, K., & Leonard, L. N. K. (2008). Trust in consumer-to-consumer electronic commerce. *Information & Management*, 45(2), 88–95. <https://doi.org/10.1016/j.im.2007.12.002>
- [18] Kalakota, R., & Whinston, A. B. (1997). *Electronic Commerce: A Manager's Guide*. Reading, MA: Addison-Wesley.
- [19] Kelton, A. S., & Murthy, U. S. (2023). Reimagining design science and behavioral science AIS research through a business activity lens. *International Journal of Accounting Information Systems*, 50, 100623. <https://doi.org/10.1016/j.accinf.2023.100623>
- [20] King, R. C., Schilhavy, R. A. M., Chowa, C., & Chin, W. W. (2016). Do Customers Identify with Our Website? The Effects of Website Identification on Repeat Purchase Intention. *International Journal of Electronic Commerce*, 20(3), 319–354.
- [21] Kobayashi, T. (2013). How Can Electronic Commerce In Developing Countries Attract Users From Developed Countries? A Comparative Study Of Thailand And Japan. *International Journal of Electronic Commerce Studies*, 4(2), 159–184.
- [22] Kompas.com. (2023). *Bantu Digitalisasi, Ini Upaya KemenKopUKM Berdayakan UMKM Dari Hulu Ke Hilir*. diakses melalui <https://kemenkopukm.go.id/read/bantu-digitalisasi-ini-upaya-kemenkopukm-berdayakan-umkm-dari-hulu-ke-hilir>
- [23] Lertwongsatien, C., & Wongpinunwatana, N. (2003). E-Commerce Adoption in Thailand: An Empirical Study of Small and Medium Enterprises (SMEs). *Journal of Global Information Technology Management*, 6(3), 67–83.
- [24] Leuthold, S., Schmutz, P., Bargas-Avila, J. A., Tuch, A. N., & Opwis, K. (2011). Vertical versus dynamic menus on the world wide web: Eye tracking study measuring the influence of menu design and task complexity on user performance and subjective preference. *Computers in Human Behavior*, 27(1), 459–472.
- [25] Lin, P. Y., Liang, T. P., Huang, H. C., & Li, Y. W. (2021). Design Quality, Relationship Intimacy and Continuance Intention of Mobile Apps: an Extension To the Is Success Model. *Journal of Electronic Commerce Research*, 22(4), 266–284.
- [26] Lukihardianti, A. (2021). *Pandemi Dorong Pengusaha Lokal Go Digital*. <https://sindikasi.republika.co.id/berita/qudlpw396/pandemi-dorong-pengusaha-lokal-go-digital>
- [27] Lynch, P. D., Kent, R. J., & Srinivasan, S. S. (2001). The Global Internet Shopper: Evidence from Shopping Tasks in Twelve Countries. *Journal of Advertising Research*, 41(3), 15–23.
- [28] Mehta, D., & Hamke, A.-K. (2019). *In-Depth: B2B ECommerce 2019*. Statista.
- [29] Monk, E. F., & Wagner, B. J. (2013). *Concepts In Enterprise Resource Planning* (Fourth Edi). Course Technology Cengage Learning.
- [30] Mou, J., Cui, Y., & Kurcz, K. (2019). Bibliometric and visualized analysis of research on major e-commerce journals using citespace. *Journal of Electronic Commerce Research*, 20(4), 219–237.
- [31] Nilashi, M., Jannach, D., Ibrahim, O. b., Esfahani, M. D., & Ahmadi, H. (2016). Recommendation quality, transparency, and website quality for trust-building in recommendation agents. *Electronic Commerce Research and Applications*, 19, 70–84.
- [32] Noh, M., Lee, K., Kim, S., & Garrison, G. (2013). Effects of collectivism on actual s-commerce use and the moderating effect of price consciousness. *Journal of Electronic Commerce Research*, 14(3), 244–260.
- [33] Plugge, A., Nikou, S., & Bouwman, H. (2020). The revitalization of service orientation: a business services model. *Business Process Management Journal*, 27(8), 1–24.
- [34] Ranganathan, C., & Jha, S. (2007). Examining Online Purchase Intentions in B2C E-Commerce. *Information Resources Management Journal*, 20(4), 48–64.
- [35] Raymond, L. (2015). Determinants of Web site implementation in small businesses. *Internet Research*, 11(5), 411–422.

- [36] Safari, A. (2012). Customers' international online trustinsights from focus group interviews. *Journal of Theoretical and Applied Electronic Commerce*, 7(2), 13–72.
- [37] Skare, M., Gavurova, B., & Rigelsky, M. (2023). Innovation activity and the outcomes of B2C, B2B, and B2G E-Commerce in EU countries. *Journal of Business Research*, 163, 113874.
- [38] Subba Rao, S., Metts, G., & Mora Monge, C. A. (2014). Electronic commerce development in small and medium sized enterprises: A stage model and its implications. *Business Process Management Journal*, 9(1), 11–32.
- [39] Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- [40] Thongpapanl, N., & Ashraf, A. R. (2011). Enhancing online performance through website content and personalization. *Journal of Computer Information Systems*, 52(1), 3–13.
- [41] Wang, L., Law, R., Guillet, B. D., Hung, K., & Fong, D. K. C. (2015). Impact of hotel website quality on online booking intentions: e-Trust as a mediator booking intentions: e-Trust as a mediator. *International Journal of Hospitality Management*, 47, 108–115.
- [42] Wang, Q., Yang, Y., Wang, Q., & Ma, Q. (2014). The effect of human image in B2C website design: An eye-tracking study. *Enterprise Information Systems*, 8(5), 582–605.
- [43] Zhu,K.(2004a).The complementarity of information technology infrastructure and E-commerce capability:A Resource-based assessment of their business value.*Journal of Management Information Systems*,21,167–202.
- [44] Zhu, K. (2004b). Information Transparency of Business-to-Business Electronic Markets: A Game-Theoretic Analysis. *Management Science*, 50(5), 670–685.
- [45] Zwass, V. (2003). Electronic Commerce and Organizational Innovation: Aspects and Opportunities. *International Journal of Electronic Commerce*, 7(3), 7–37.