The Effect of Service Quality on Perceived Trust Moderated by Digital Technology at PT. Pupuk Indonesia

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ABSTRACT

This study aims to see the effect of the interaction quality, outcome quality, and environmental quality on customer perceived value moderated by digital technology and affects consumer trust. The company's object in this research is PT Pupuk Indonesia Tbk, with the respondents being farmer groups and cooperatives who place orders for subsidized fertilizers produced by the company. The form of this research is quantitative research by distributing questionnaires. Questionnaires will be distributed with a minimum of 150 respondents spread throughout Indonesia. Data of the questionnaire will be processed using Smart PLS. The indicator validity test in this study will be tested by factor loading, while the reliability test will be tested by composite reliability. The validity test of the variables will be tested with Average Variance Extracted (AVE). The research model will also be tested with the determinant coefficients R\textsuperscript{2} and Q\textsuperscript{2}. Keywords: Interaction Quality, Outcome Quality, Environmental Quality, Customer Perceived Value, Digital Technology.

1. INTRODUCTION

Companies are required to be able to recognize and use information technology as a tool to learn and survive to compete in a tight and challenging market. Currently, information technology is also needed by government companies to improve performance, one of which is PT Pupuk Indonesia. As a state-owned company, PT Pupuk Indonesia does not only produce subsidized fertilizers but also must be able to generate profits for the state. PT Pupuk Indonesia must continuously improve and innovate the product quality and distribution system so that the product result can be fully absorbed and reach farmers effectively.

One of the systems that will be developed is the Distribution Planning Control System (DPCS). This geospatial data-based system can track the fertilizer distribution process and monitor the stock of subsidized fertilizers in real-time. This aim is to minimize fertilizer shortages and increase the accuracy of distribution planning. The continuity of the program between government institutions, in this case, PT Pupuk Indonesia and the Ministry of Agriculture, also supports the synergy of government programs to benefit farmers' welfare.

The readiness of PT Pupuk Indonesia's resources to carry out this digital transformation, both in terms of human resources and physical resources, is a challenge for the company to transform smoothly. Digital technology support is expected to strengthen customer perceptions of value for the quality of services provided by the company so the customer's trust will increase. More personal interactions and excellent product quality will shape the competitive atmosphere of the fertilizer business in Indonesia to become more transparent and minimize the shortage.

Digital technology plays an essential role in improving service quality to provide customers with a more personalized and unique experience and build positive customer relationships \cite{1, 3}. However, when a company's service system integrates digital technology can cause problems because not all...
customers have the ability and experience in the same way [4].

Therefore, digital marketing challenges companies to transform conventional service, quality models. Studies of service quality in business-to-business (B2B) are still limited [5]. B2B companies pay less personal attention to customers so that companies are less capable of involving customers to improve the quality of company services. Digital technology is seen as a driver of customer engagement [1], [6]. It serves as a communication and feedback tool and allows customers to search, compare, and select various products online [7], [8]. Research shows that digital technology can provide good service quality and build customer relationships [1]. The question of customer perceived value in the digital realm is crucial in the B2B context [5].

There is rare research on the interaction between digital technology and service quality dimensions [1] and how this interaction affects the service’s perceived value, thereby increasing customer trust in the company. Previous research on service quality has focused chiefly on physical conditions in the environment [9], [10] and markets in developing countries [11]. Research on service quality in developing countries is still limited [12], especially at this time services in these countries are increasingly equipped with digital technology [13].

This study was developed by [1] to see how customers understand the value of technology in providing digital services, especially in the context of B2B professional services. The quality of the interaction describes the interaction between the service provider and the customer. Outcome quality refers to the benefits that customers receive from the service encounter. And environmental quality represents the quality associated with the service context environment. The service quality component [14] is related to non-physical services and is also related to the provision of physical benefits.

2. LITERATURE REVIEW

2.1. Digital Technology

Digitization refers to using virtual technology constructed on statistics and the strength of connected machines through artificial intelligence, which have the capability to boom consumer prices and influence opposition in numerous industries. Digitization can alternate an enterprise because most of its offerings are carried out by way of robots [15]. Extra information is needed approximately how virtual technology influences offerings and how provider workers create new jobs to address the capability disruption and exploitation of the usage of those technologies [16].

In a study performed with the aid of [17], its miles argued that offerings could be changed at the project stage as compared to the job stage. through incorporating new technology into services, front-line dealers can improve their performance [18], deliver offerings which can be more tailored to purchasers’ needs and growth productiveness [17]. That is especially critical in professional offerings, which depend to a large quantity on social talents and creativity [15].

Offerings built on empathetic intelligence might be more challenging for artificial intelligence and robots [15], [17]. It’s miles concept that in those services, people tend to protect and deliver emotional and relational duties while being supported by carrier robots that perform analytical tasks [15]. But empirical research on how provider transition advice from human-based totally to generation-based is enforced using the front-line workers in services that incorporate extraordinary intelligence is missing [19], [20].

2.2. Interaction Quality

Recently, there has been a tremendous increase in interaction between customers and employees with diverse cultural backgrounds. This occurs because of the increasing number of customers learning and adapting to the social and cultural environment [21]. The interaction process between customers and employees understands and adapts to different cultures and knowledge [22]. Customers and employees with diverse cultures need to overcome perceived cultural and knowledge distances from one another and learn to adapt behavior according to educational level, given the significant differences in ability, culture, language, ethnicity, physical appearance, and personal and social values and beliefs: values and behavioral norms.

Early research on customer-employee interactions focused on the challenges faced in the adjustment process at lower levels of management [23] and then on the structural impact of administration [14]. Other studies have also looked at the role that communication plays [22], [24] in cross-cultural adaptation and identified several barriers that hinder the adjustment process of effective knowledge transfer, effective communication, including psychological privileges. And ethnocentrism [22], or promoting interaction between consumers and employees [24] and willingness to communicate [22].
2.3. Outcome Quality

Outcome quality is known because of the final evaluation of purchasers with technical and valid assessment parameters of client pleasure. Results satisfactory is characterized by using [25] as one among service interactions, namely technical high-quality and valuable exceptional. The acceptable technical dimension is defined as the technical outcome of the technique due to what the client will get hold of from his interaction with the carrier provider. On the other hand, purposeful first-rate is about accessibility, the complete method of getting services from service companies, time spent waiting to receive benefits, the impact of the client and carrier provider interplay ecosystem, and plenty more. Consistent with [25], technical first-class is an entirely subjective size that cannot be evaluated as a functional goal.

In a try to similarly investigate the pleasant-of-carrier effects, [14] found that the model proposed by using [25] stated that external great is what customers understand while service is furnished. The following suggests three sub-constructs for outside satisfaction, particularly tangibles, waiting time, and extra valence, which capture attributes to control customer perceptions of awful or suitable carriers [14]. [26] has recognized one assemble of first-rate based totally at the vast literature, a construct known as outcome first-rate. This look determined that the fine of this outcome is a construct attributable to the excellent service evaluation of SERVQUAL. The results of [26] show that the pleasantness of the output is a determinant of the general provider’s satisfaction.

2.4. Environment Quality

The new product sales team uses various market information to examine market conditions where the level of uncertainty is very high for new products. The Total Interpretive Structuring Model shows that a volatile market influences salespeople in new product sales activities. In a volatile market environment, salespeople can less predict customer preferences. In an uncertain market, salespeople must be prepared to be more innovative, proactive, and take risks.

[22] emphasizes the role of digital technology to be a practical part of the circle of innovative economic business models based on product services. There are some optimistic expectations about the impact of the service on the environment. Results-oriented services are considered to increase optimization because the product can be an investment and a cost for producers [21]. There is also an exciting opportunity to apply circular economy models related to self-improvement as a life cycle extension strategy, which could be particularly relevant for products that involve significant investment by customers and technological developments [27].

2.5. Customer Perceived Value

The assessment of what client’s experience has acquired quite a few interests inside the advertising discipline [28] because the perceived value is the basis for all advertising activities [29]. Inside the B2B context, maximum of the ideas of purchaser perceived price emphasizes the change-off among the advantages and change-offs of those offered using producers, as perceived through decision-makers in businesses, and through thinking about alternative manufacturer services available inside the market [28].

Cost perceived by clients isn't the same as acceptable, which only captures the beneficial aspect of the usage of the product [27]. In B2B, purchaser perceived value gives predictors that complement advertising, which include patron loyalty, repurchase intention, phrase of mouth referrals, client belief, and switching expenses [30], [31]. Summarizing value differences in B2B settings, [32] advise several fundamental specifics regarding the price consciousness on client-supplier relationships rather than object-subject interactions. Studies on consumer perceived value these days recommend that cost consists of process cost, which is perceived for the duration of the carrier delivery technique, and outcome value, which is perceived at the provider’s guilt. This view is regular with the dominant carrier logic [33], which emphasizes that value for clients is created as a part of the interaction between clients and providers or service companies [25]. Consistent with the dominant provider's reasonable judgment, customers who get entry and price a fee have a crucial position within the value advent procedure. Regarding clients as individuals who co-create their experiences have a practical impact on their affective responses, increasing their acceptability and cognitive flexibility [34] and increasing their acceptable belief due to the collaborative construction of shared experiences [35].

2.6. Perceived Trust

Accepting as accurate is understood as an interplay between two parties developed for a traditional context and a physical retail keep [36]. Notwithstanding variations in scientific emphases, believe in respects seems to be conceptualized as a function of 3 elements: the depended-on parties, the machine that links them, and the belief of one
another primarily based on promises, both verbal or written statements, sources, and capabilities, integrity, credibility, openness, or action. For example, [36] described agreeing with as a psychological notion of a person's intention to accept vulnerability primarily based on positive expectations of the choices and behavior of others. However, [37] suggests that believing in a transaction management mechanism is more vital than trust in any individual. Regardless of these variations, accept as accurate with is requisite in developing and retaining practical cooperation and operating relationships between commercial enterprise partners [38] and generating dedication, therefore primary to the long-time relationship [39].

The contemporary literature has essentially added the concept of agree with from traditional settings to retail websites [40]. Accept as accurate performs a vital role in taking pictures of purchaser behavior in digital markets, which impacts attitudes [41], willingness to take part [42], and actual client purchases from online retail shops [43]. Further, believe can flip website or application traffic into consumer [44] by lowering their buying chance [45]. Further, believe can flip website or application traffic into consumer [44] by lowering their buying chance [45]. According to [46], belief is an essential element within the success of packages and electronic markets. [47] stated that consumer acceptance as accurate within boxes and sites depends on the belief of the site's capacity to bring expectancies, statistics take as precise with, and the consider it conveys.

Digital technology plays a vital role in the way customers perceive value [7]. Tracking technology enables companies to optimize customer experience by providing customers with the products/services and information they are looking for [1]. Utilizing big data can save customers time searching for information and provide the ability for customers to compare products and services across various providers. Without digital technology, companies cannot match the prices of other products in the market, and customers do not get the best price offers [48]. Without supporting digital technology, customers will not be able to make transactions on the go, and paying bills by phone or cardless payments is even impossible [49], [50]. Digital technology can provide customers with both efficiency value (saving time and money) and functional value (in terms of quality-of-service provision).

H1: The Effect of Digital Technology on Customer Perceived Value

In the B2C context, service providers' attitudes, behavior, and expertise are essential in B2B professional services. Professional services usually involve engagement that shows a high level of interaction, collaboration, and interpersonal communication between service providers and customers [51], [52]. The interaction between customers and service providers allows companies to proactively respond and act according to customer needs [53]. The quality of the interaction also facilitates the effective exchange of information about specific products and services. The interaction between the customer and the service provider affects the customer's evaluation of the service experience [54].

H2: Effect of Interaction Quality on Customer Perceived Value

In the B2B context, there is a high degree of dependence, uncertainty, and information asymmetry between providers and customers [55], [56]. Similarly, in the context of professional services, there is a high level of information asymmetry between service providers and customers [57]. Thus, the quality of the output affects the customer's evaluation of the service experience. The higher the output quality, the more likely it is for the customer to feel that they are getting value from providing the service. Indeed, [53] found that project outcomes affect interpersonal relationships between customers and advertising agencies. This suggests that service provision results, such as efficient and effective damage management responses, are essential in determining customers' perceived value from service encounters.

H3: Effect of Outcome Quality on Customer Perceived Value

In the digital world, the environment includes digital social ambiance that can affect the customer experience [7]. For example, in some studies, digital cues, such as posts, comments, and reviews, can influence customer behavior when they use technology in a busy online environment [58]. Digital technology also provides a platform environment where customers can interact in the digital realm [59]. This can be done through digital interfaces, design functionality, and social effects such as community and privacy. In addition, environmental quality also concerns accessibility and convenience, for example, the ease with which customers can request a quote or submit a claim. Thus, the environment creates an atmosphere where customers feel that they can interact with the service provider and make them think that they can find information at their fingertips at any time of the day.

H4: Effect of Environment Quality on Customer Perceived Value

In a digital environment, technology enables customers to gain access to information and
knowledge. At the same time, digital technology allows employees to be more effective and efficient in terms of their service provision to deal with specific workflows or customer problems [60]. In this regard, the skills of service employees to build positive relationships with customers are as meaningful as the utilization of digital technology [1]. When technology and service interactions are perceived to be high quality, this enhances the customer's perception of value.

H5: Effect of Interaction Quality on Customer Perceived Value moderated by Digital Technology

The use of digital technology has significantly changed the way services are delivered to satisfy customers [1], [61]. [62] found that digital technology enables customer-centric outcomes and financial success. Such output quality is realized when digital technology assists clients in achieving the core outcomes of services in a better and more efficient manner [60] For example; a hotel booking application helps customers achieve the desired result, namely booking a hotel room, more effectively and efficiently. In an industrial context, digital technologies can enable automated workflows, automated quoting systems, and more efficient payment systems, improving output quality and facilitating higher customer perceived value.

H6: Effect of Outcome Quality on Customer Perceived Value moderated by Digital Technology

[59] illustrates that digital technology supporting content marketing activities can generate more sales opportunities. Digital activities like webinars allow companies to interact with their customers, providing chat rooms, surveys, and file-sharing capabilities, to engage customers. In the service industry, digital technology can also create more interactive and easy-to-use systems for building customer experiences. For example, digital technology can provide a secure, integrated, and connected platform online. The environment can also make information accessible and available to help customers conduct due diligence on products that can best meet customer needs. In line with research by [1], [60], [63], customer perceived value becomes positive and more vital for services supported by digital technology because the technology enhances the digital atmosphere for customers.

H7: Effect of Environment Quality on Customer Perceived Value moderated by Digital Technology

The online buying literature shows opposing views on customer price perceptions and consumer beliefs. In step with [40], acceptance as accurate within the company creates client cost perceptions of relational blessings and coffee exchange fee uncertainty. Another study [64] found that trust in online auctions results in the perception of purchaser value in collectivist cultures. Believe that ends in the belief of consumer value is likewise located with the aid of [65], who tested customers who bought journey programs from journey websites. In assessment, [66] argues that purchaser judgments are regularly based on incomplete or confined relevant data to be had in packages. Since the software is the client's touch with the organization online, the quality represents the acceptance as accurate within the agency inside the application. [67] observed that application best greatly influences patron trust inside the business enterprise. Likewise, [68] determined that the perceived fee obtained through purchasers for an application was considerably related to the utility's agreement. [69] and [70] also stated comparable results.

H8: Influence of Customer Perceived Value on Perceived Trust

3. RESEARCH METHODS

This research is included in quantitative analysis using the non-probability sampling technique. Questionnaires were distributed to 200 companies that became distributors of PT Pupuk Indonesia. The following is a profile of the respondents who have been collected.

Table 1. Respondent Profile

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Age</td>
<td>&lt; 1 year</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>1 year – 3 year</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>4 year – 6 year</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>7 year – 9 year</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>10 year – 12 year</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>&gt;12 year</td>
<td>26</td>
</tr>
<tr>
<td>Company Location</td>
<td>Jawa &amp; Bali</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Sumatera</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Kalimantan</td>
<td>22</td>
</tr>
</tbody>
</table>
The following are the test results of the influence between variables that occurred in this study by looking at the path coefficient.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sulawesi and Maluku</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Papua</td>
<td>2</td>
</tr>
<tr>
<td>Order per month</td>
<td>&lt; 30 tons</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>30 – 50 tons</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>50 – 70 tons</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>&gt;70 tons</td>
<td>31</td>
</tr>
<tr>
<td>Booking frequency</td>
<td>Once a month</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>2 times a month</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>3 times a month</td>
<td>54</td>
</tr>
</tbody>
</table>

The following are the test results of the influence between variables that occurred in this study by looking at the path coefficient.

<table>
<thead>
<tr>
<th>hypothesis</th>
<th>Original Sample (O)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Technology -&gt; Customer Perceived Value</td>
<td>0.086</td>
<td>1.311</td>
<td>0.190</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Interaction Quality -&gt; Customer Perceived Value</td>
<td>0.113</td>
<td>0.983</td>
<td>0.326</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Outcome Quality -&gt; Customer Perceived Value</td>
<td>0.371</td>
<td>3.262</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>Environment Quality -&gt; Customer Perceived Value</td>
<td>0.374</td>
<td>4.143</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>Moderating Effect 1 -&gt; Customer Perceived Value</td>
<td>0.089</td>
<td>0.857</td>
<td>0.392</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Moderating Effect 2 -&gt; Customer Perceived Value</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Moderating Effect 3 -&gt; Customer Perceived Value</td>
<td>-0.047</td>
<td>0.476</td>
<td>0.634</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Customer Perceived Value -&gt; Perceived Trust</td>
<td>0.890</td>
<td>48.331</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

The following are the test results of the influence between variables that occurred in this study by looking at the path coefficient.

4. RESULTS AND DISCUSSION

From the table above, H1 is not supported. This shows the unpreparedness of the fertilizer distributor.
company in carrying out the digital transformation process planned by PT Pupuk Indonesia. Likewise, with H2, whose results are not supported. The quality of interaction expected by the attributor company is still in the form of service interactions that can be seen and met directly. It is impossible to achieve a good quality of interaction through digital interaction. This is supported by H3, where this hypothesis is supported. The quality of the output produced is still in the form of a product delivered in good condition and received on time. There are no digital factors included in consideration of distributor companies. The quality of the output is still an essential factor. If the production quality is not by consumer expectations, then other factors can be considered unimportant. On H4, it is known that the results are supported. This hypothesis also supports the hypothesis, which states that the interaction felt by distributor companies still relies on interactions and physical facilities that can affect the value felt directly by consumers. For hypotheses H5, H6, and H7, the results are not supported, respectively, as the unsupported digital technology factor impacts customer perceived value. The presence of digital technology has not had the impact of strengthening or weakening the relationship between existing variables H2, H3, and H4. While H8 shows that the value felt by the distributor company can form a sense of trust in PT Pupuk Indonesia. This needs to be a note for Pt Pupuk Indonesia to always pay attention to the value perceived by consumers and other supporting factors so that the digital transformation plan launched by the company can run well in the future.

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