The Impact of Customer Relationship Management Quality and Company Reputation toward the Antecedent of Customer Loyalty during COVID-19 Pandemic

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Abstract

This study objective was found the interrelationships among service evaluation, that is service quality, customer satisfaction, and customer value, with customer loyalty through mediating roles of customer relationship management (CRM) quality, and moderating roles of company reputation in the heavy equipment industry in the middle of COVID-19 pandemic. Also investigate the most critical domains of service quality, customer satisfaction and customer value considered by customers in the heavy equipment and the connection among service quality, customer value and customer satisfaction toward customer loyalty by interlinking customer relationship management (CRM) quality and moderating effect of company reputation variable. In this research, there are several variables correlated with customer loyalty, CRM Quality and Company Reputation. Data were gathered from 259 customer, had transaction unit heavy equipment and its product support in the time of COVID-19 pandemic, by using SPSS and SmartPLS. The data is processed and analyze through structural equation model (SEM). The research found service quality and customer satisfaction variables were not influenced customer loyalty and the mediating effect of CRM quality on relationship between service quality toward customer loyalty were not supported too. Although, customer satisfaction has strong correlation to customer loyalty and the mediating effect is supported in the middle of COVID-19 pandemic. In addition, this research also found moderating effect of company reputation is significance on relationship service quality, customer value, and customer satisfaction toward CRM quality, even if the correlation is reverse relationship. The research discusses important implications considering the effect of service quality, customer satisfaction and mediated by CRM quality toward customer loyalty and improving company reputation as moderated effect to strengthen customer relationship management quality.

Keywords: Customer Relationship Management; Company Reputation; Customer Loyalty; B2B; COVID 19 Pandemic.
I. INTRODUCTION

This line of research becomes especially relevant when considering the recent market changes brought on by the COVID-19 pandemic in global and national scale. On 11 March 2020, COVID-19 was designated as a pandemic condition in Indonesia, which was first reported on March 2, 2020, and a positive case continued to increase (Kementerian Kesehatan RI, 2020). The COVID-19 pandemic that has been established affects the transportation, tourism, trade, health, and other sectors. The "lock down" policy is taken by Indonesia Government to prevent further spread of COVID-19, so that economic activities are hindered and put pressure on Indonesia economic growth in the future (Susilawati et al., 2020), and brought Indonesia’s economic growth -2.07 percent on 2020 year-on-year (Kementerian Keuangan RI, 2021), recession economic condition already stated by Government on September 2020 (Kementerian Keuangan RI, 2020).

In the B2B context, customer required customization of services, products, and/or price structures because of the unique characteristics of the customer acting as organizations. The relationship between customer and supplier in B2B marketing is described as a close and long-term interaction with complexity (Cortez et al., 2017). Then, Supplier and/or service providers need to build individual relationship also with business customers (Alshurideh, 2019). The quality of the business-to-business relationship as a crucial factor in building success in the market, which can enhance the competitiveness of both partners and reducing transaction in B2B environment (Dasanayaka et al., 2020; Ganesan and Hess, 1997)

Therefore, Indonesia Heavy equipment (HE) industry, as B2B context, will be affected by the COVID-19 pandemic too with a decline in growth of -2.27 percent on 2020 (Badan Pusat Statistik, 2021). This condition has influence B2B customer loyalty, which it strengthened the statement, customer change partner just because short time advantages is rational action outcome of recession condition, strongly support (Agostini et al., 2017; Hetesi, 2014). This study will deep investigate customer loyalty on Indonesia Heavy Equipment industry, especially on PT XYZ, a market leader of heavy equipment market in Indonesia with strong company reputation. PT XYZ was suffering their revenue and profits during pandemic, their customer was cancelled and/or delayed purchase order, even business customer switch to competitors. The customer relationship management quality play as an importance role to maintain customer engagement and customer intimacy in the B2B environment. The other hand, PT XYZ has strong company reputation but brought high customer expectation on its product and/or services. Thus, customer relationship management quality and company reputation impacted to customer loyalty, a critical factor to determine company sustainable growth as a strategic goal (Siddiqi et al., 2018; Cooil et
This study were investigated during the COVID-19 pandemic, which entailed changes in the reference environment (a national lockdown where only the essential businesses were open to the public and recession condition) that may have potentially modified CRM quality and influenced by customer perception on company reputation, so this research constructs and empirically tests an integrated model that analyses the simultaneous effects of the service evaluation variables (service quality, customer satisfaction and customer value) on customer loyalty mediated by CRM quality (commitment and trust) and moderated by company reputation in the B2B context during COVID-19 pandemic in interesting ways. The rest of the study started by presenting the theoretical framework of the study, a literature review of the central build-ups and hypotheses forming. Thereafter, the research elucidates research methodology and findings. The end of research presents about theoretical discussion and managerial implication, limitations, and areas for future research.

II. LITERATURE REVIEW

In the previous study investigated the moderated mediating effect customer relationship management (CRM) quality and brand image on the relationship between service evaluation (service quality, customer value, and customer satisfaction) with customer loyalty in the B2C context on automotive industry (Nyadzayo and Khajehzadeh, 2016), showed CRM quality took mediating roles and brand image capable to provide moderating effect on several high brand image. The relationship between service evaluation and customer loyalty in the B2B context has distinguished which is involve a whole organization creating the customer's trust and commitment (Zhang et al., 2019; Rauryuen et al., 2007). In more specific terms, both trust and commitment factors that the customers might have with the employees do not play a significant in enhancing their loyalty to the supplier. Although, the COVID-19 pandemic is bringing different circumstance on the link of service evaluation and loyalty, particularly in the B2B context, which it strengthened the statement, customer change partner just because short time advantages were rational action outcome of recession condition, strongly support (Rizomyliotis et al., 2017; Heteesi, 2014).

During normal economic condition, prior research supports the positive direct effect of service quality on loyalty (Izogo et al., 2017; Iacobucci, 2006; Zeithaml et al., 1996), several research tried to combine service evaluations and customer relationship management (Kandampully et al., 2018; Kasiri, 2017; Fullerton, 2005) to argue that CRM quality comprising of commitment and trust is a vital in develop and manage long-term engagements and reinforce loyalty (Huma et al., 2019). Company reputation is positively related to customer loyalty and perceived value of service. However, it also capable to provide mediation effect on the perceived value of services and loyalty (Özkan et al., 2019). Overall, the relationship between the three
service evaluation variables, CRM quality, company reputation, and outcome measures such as customer loyalty are still ambiguous (Özkan et al., 2019; de Matos and Rossi, 2008).

Therefore, we realized the direct effect of the service evaluation variables on loyalty in the B2B context during economic recession, particularly impacted to COVID-19 pandemic. Although, to investigate the effectiveness of these variables on customer loyalty our conceptual model describes that (i) CRM quality take roles a mediating effect on these relationships and (ii) the mediated links between each of the three service evaluation variables and loyalty via CRM quality is moderated by company reputation. Thus, we indicated a moderated mediation relationship construct in this research model (see Fig.1). The proposed hypotheses are explicated in the following sections.

2.1. Customer loyalty

Customer loyalty in the progressive competitive market is understood as the core attribute in winning market share compared to competitor and generating economic growing on company for long-term (Cortez, 2018). Companies can carry out competitive advantage via customer loyalty, and it is the process to select the loyal customers and finally maintaining customers (Nobar et al., 2018). Accordingly, Gorlier and Michel (2020) emphasized that serving loyal customers are 5 (five) or 6 (six) times effort less than an ordinary-common customer. The literature of customer loyalty often viewed as a numerous construct with the 3 (three) indicators, namely the attitudinal loyalty, the behavioural loyalty, and the cognitive loyalty (Kaunas, 2013). First, attitudinal loyalty was defined by Fournire and Yao (1994) as a distinguish perceive value and experience which create an ordinary attribute toward product and service, all of company relation. Second, behavioural loyalty was illustrated as the customer behavior type like continuous or repeat buying activities from the same vendor and/or the recommendation activities (Yi, 1990; Kaunas, 2013). Behavioural loyalty was the first and frequently adopted loyalty dimension in mostly related loyalty research. Third, cognitive loyalty as the first customer choice among the first brand and alternative ones, supplier, or store which influenced and penetrated customer mind and perception when they took procurement decisions (Ostrowski, O’Brien & Gordon, 1993 in Kaunas, 2013)

Likewise, loyalty of customer in line with Grace, Ross, and King (2018), the customer loyalty falls into 3 (three) indicators as follow as customer repeat procurement (customer loyalty towards procurement service or product), reference (the total corporate existence), and customer retention (resistance to the negative company effect). Singh et al. (2017) comprehended loyalty as an attitude attributes and behavior attributes. Thus, this study is expecting CRM quality, service quality, customer satisfaction, and customer value affects customer loyalty positively.

2.2. Service quality

The Impact of Customer...
Service quality as “the totality of features and characteristics of service that bears on its ability to satisfy stated or implied needs.” Service quality able to determines how well a service is delivered and how it compared to customer expectations about product and service (Murfield, 2017). According to Zeithaml et al. (2006), the specific dimensions that influence perceived service quality include: (i) reliability: providing customers with accurate service the first time round; (ii) responsiveness: the employees’ willingness and readiness to help the customer, quickly respond to their requests and inform them when the service will be rendered; (iii) assurance: the employees’ courteous behavior and knowledge of the service firm's products and services; (iv) empathy: the employees’ understanding of the customer's problems and attempt to execute activities with the customer's best interests in mind; and (v) tangibles: the physical cues such as facilities, equipment used and the employees’ appearance. In addition, major company both B2C and B2B constantly improve their service quality, then impacted to customer loyalty increasing. On other hand, several items of efficiency, profit, and price war has influence B2B loyalty during recession, belong to the variable service quality, price rationalization and rationality (Agostini et al., 2017; Hetesi, 2014). Then, customer loyalty in the B2B context is maintained during recession if the customer gains service quality that has an impact on their adequate profitability through efficiency and/or price war. Thus, we hypothesize that:

Hypothesis #1: Service quality is positively effect on customer loyalty during COVID-19 pandemic

2.3. Customer satisfaction

The foundation for true loyalty lies on customer satisfaction. Marchand (2017) states that customer loyalty is conditional item on definite variables such as competitors’ strategies, recommending that satisfaction is implausible to be the loyalty parameter exclusively. Customer loyalty in B2B context satisfaction is “a positive emotional state resulting from the evaluation of all aspects of a cooperative relationship with another enterprise” (Othman et al., 2020). However, satisfaction and loyalty should not be considered agents of each other. The following discussion introduces some, if not all, of the various perspectives that tie satisfaction and loyalty in the context of a supply chain. For example, a study conducted by Mpinganjira et al. (2017) looked at the relationship between the retail industry and sales companies. The relationship between customer satisfaction and customer loyalty has already been clear from previous research it is predicted about satisfaction-loyalty relationship (Nyadzayo and Khajehzadeh, 2016). However, in the recession condition, the indicator of uncertainty is composed of elements like defenselessness, severe conditions, unpredictability influence the customer satisfaction (Agostini et al., 2017; Hetesi, 2014). Then, customer loyalty in the B2B context is maintained during recession, if customer satisfaction perception still high, in the middle of defenselessness, severe condition, and unpredictability situation through flexible partnership with long-term business oriented. Thus, we hypothesize that:
Hypothesis #2: Customer satisfaction is positively effect on customer loyalty during COVID-19 pandemic.

2.4. Customer value

Within the marketing discipline, the fundamental component, make effective company in keeping up its client, is innovations approximately evaluate client prevalent. Customer perspective approximately customer value is what we get (points of interest) relative to what we need to — give up (costs or penances) (Zeithaml et al., 2016). When evaluating factors that influence customer loyalty, it is important to consider the value of the customer. Value creation is a central concept in management and organizational literature at both the micro level (individual, group) and macro level (organizational theory, strategic management) (Hernandez and Haddud, 2018; Lepak et al., 2007). Until now, in the B2B context, research on building the theory of customer value has included definition of concepts (Payne, Frow and Eggert, 2017), measurement of precedents (Sayil et al., 2019), value navigation as a process (Gerke, Woratschek and Dickson, 2020). The cost of value (or expectation) and satisfaction loyalty to better understand the case of a company that able to experience high customer loyalty in the absence of satisfaction and customer value. The future research is recommended that can solve complex interactions with. For example, a customer's unwillingness to find a new supplier is a dangerous scenario for a company to consider. Future research will be able to investigate this in more detail. Also, previous studies recommend that contained customer value includes positive and indirect benefits of intent to purchase behavior (Tuan et al., 2019). Therefore, in this study, it is expected that customer value will have a positive impact on the quality of CRM (Customer Relationship Management), which is strongly supported.

2.5. Customer relationship management (CRM) quality

There are converging views that service evaluation variables including service quality, customer value and customer satisfaction are the key customer assessment on their perception that influence behavioural intentions (Sultan and Wong, 2019; Garbarino and Johnson, 1999; Zeithaml et al., 1996). Several prior journals research have merged service evaluations and relationship marketing insights (Van Tonder and Petzer, 2018; Fullerton, 2005; Morgan and Hunt, 1994) to posit that the quality of CRM is comprising of trust and commitment which is crucial in building and maintaining long-term relationships and strengthening customer loyalty (Alhathal et al., 2019). Overall, the relation among the three of service evaluation variables, CRM quality, company reputation and outcome measures that customer loyalty were still unclear (Lebdougui et al., 2020; Levin et al., 2019; Van Tonder and Petzer, 2018; Lai et al., 2009; de Matos and Rossi, 2008).

Customers are unlikely to return or recommend a service firm that falls short of their expectations of service quality (Zeithaml et al., 1996). Then, suggesting service quality as a
crucial driver of customer loyalty. Furthermore, major companies are expected to benefit by offering greater customer value, as they can promote trust and commitment that eventually develop more loyal customers. Hänninen and Karjaluoto (2017) argued that by driving CRM performance. Also, research suggests that perceived customer value has a positive, indirect impact on behavioral intentions. About customer satisfaction, prior studies suggest that although both product and service satisfaction positively drive customers’ intentions to repurchase the brand, the impact of service satisfaction is lower than that of product satisfaction (Cao et al., 2018). Therefore, it is expected that by offering greater service evaluation variable (service quality, customer value, and customer satisfaction), companies can promote trust and commitment that eventually develop more customers who are loyal. Hänninen and Karjaluoto (2017) confirmed that by driving CRM performance.

According to Agostini et al. (2017), the indicator of loyalty is composed of items like fairness, trust, and co-operation each with high values during recession. Based on previous research that trust and co-operation, as importance attribute of CRM quality, still influences customer loyalty during recession on B2B context (Hetesı, 2014). Therefore, service quality, customer value, and customer satisfaction might be positively affected customer loyalty through the mediating role of CRM quality during recession. Thus, we hypothesize that:

Hypothesis #3: CRM quality is positively effect on customer loyalty during COVID-19 pandemic.
Hypothesis #4a: CRM quality mediates the effect of service quality on customer loyalty during COVID-19 pandemic
Hypothesis #4b: CRM quality mediates the effect of customer value on customer loyalty during COVID-19 pandemic
Hypothesis #4c: CRM quality mediates the effect of customer satisfaction on customer loyalty during COVID-19 pandemic

2.6. The moderating role of company reputation

According to Veh, Gobel and Vogel (2019) in the previous research claimed that the corporate reputation is a corporate prestige accumulation or aggregation that both makes and sustains long-time period relationships with customers as well as provide the company a distinctive competitive advantage on the industry or market competition. In addition, a good-favorable corporate reputation may be utilized to increment the impression and treatment of the company by the media (Childs et al., 2019), allow the company to commit higher prices for its services and/or products (Kim, 2017; Shapiro, 1983). A good-favorable reputation is an important relational tool for any company’s CRM arsenal since reputation credibility impacts customer behavior (Sawmong, 2018; Kumar, 2008). Furthermore, in the B2B context, the management of reputation could be related to manage what occurs inside a company to effect external awareness and perception which is a customer consciousness and intimacy (Cortez et al., 2020).
There are many studies in the literature to prove a positive relationship between loyalty and image and reputation. Szwajca’s (2016) showed a weak relationship between reputation and loyalty (Aramburu et al., 2019). A good reputation for high quality means more customers, fewer dissatisfied customers, and profitability increases, which was led to a good company performance in the long term, include customer loyalty (Cortez, 2020). Prior research shows that CRM practices leverage on a cross-functional integration of resources such as marketing capabilities (Bergkvist, and Zhou, 2019), suggesting that the effectiveness of CRM practices depends on other pre-existing marketing variables such as company reputation. A positive company reputation is therefore expected to strengthen the effects of service quality, satisfaction, and value on customer loyalty via CRM quality even recession economy caused by COVID-19 pandemic. Therefore, we advance the following hypotheses:

Hypothesis #5a: Company reputation strengthens the effect of service quality on CRM quality during COVID-19 pandemic

Hypothesis #5b: Company reputation strengthens the effect of customer value on CRM quality during COVID-19 pandemic

Hypothesis #5c: Company reputation strengthens the effect of customer satisfaction on CRM quality during COVID-19 pandemic

Figure 1. Research Framework on Decision Making under VUCA Condition.

III. RESEARCH METHODS

This research uses quantitative analysis to examine the mediating effect of Customer Relationship Management (CRM) quality and the moderating effect of company reputation in PT XYZ toward the antecedent customer loyalty. There are 6 (six) variables involved in this research framework. The independent variables are service evaluation (service quality, customer satisfaction and customer value). The intervening variable, which would provide mediating effect, is the Customer Relationship Management and the moderating variables is Company Reputation. The dependent variable of this research model is the customer loyalty.

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3.1 Data Collection and Sample

Our research respondents are the consumers who bought and consumed PT XYZ product (unit, parts, and service) with all of brands in Indonesia territory during COVID-19 pandemic, estimated in April 2020 till end of 2020, that the time of the research, and here the researcher does not limit or restrict the respondent form certain district or province, the data collected for one week, from 24-28 May 2021, via Google form. In total, 662 questionnaires were distributed from 863 number of samples determined and the respondents were selected using a simple random sampling technique using Excel. Of the 259 questionnaires returned, 48 questionnaires were deemed unusable due to large amounts of missing data and respondents claimed zero impact of COVID-19 Pandemic, retaining 211 questionnaires as usable for data analysis. This resulted in a response rate of approximately 24.4%. About 81.19% of the respondents were males and most (30.7%) were in the 20-29 age group; 28.4% were in the 30-39 age group; the respondent's previous education is bachelor's degree program, which 61.9% (135 respondents). On other hand, working experience of respondent dominant on 5-10 years (26.2%) and less than 5 years (24.9%). 57.9% of the total 211 respondents, total 126 persons has Operational Level, such as, Site Operation Member, Staff, Supervisor, Team Leader. The majority of respondent as many as 64 persons (29.36%) worked at a big-size company (with >1000 employees). Then, 51 respondents (23.39%) worked at a middle-up-size company (with 501–1000 employees). The data collected shows that among 211 respondents, most of them (90.83% or 212 respondents) affected negatively during COVID-19 pandemic, consist of 61.01% answered strongly agreed that their company suffered by COVID-19 pandemic, 17.43% answered agreed and 12.39% slightly agreed about COVID-19 pandemic brought bad impact.

3.2. Measures

This research using the two-dimensional construct for operationalized CRM quality, consist of trust and commitment, which is adopted from Morgan and Hunt (1994) (Giovanis and Athanasopoulou, 2018; Nyadzayo and Khajehzadeh, 2016). To measure company reputation, we applied the measurement indicator from Özkan et al., (2019) and Walsh et. al (2009). Customer loyalty towards the distributorship company was examined using the items from Zeithaml et.al (1996). Then, we adopted the dimensional measurement of service evaluation (service quality, customer satisfaction, and customer value) scale used by Nyadzayo and Khajehzadeh (2016). Service quality was measured using the five-dimensional indicator proposed by Zeithaml et. al (1996). That is, we applied measurement of service quality as a multi-dimensional setup consisting of five dimensions, such as: reliability, assurance, tangibility, empathy, and responsiveness. Customer satisfaction measured by indicator item from Mpinganjira et al. 2017 and Cronin and Taylor (1992). Finally, customer value was operationalized using the indicators adopted from Payne, Frow and Eggert (2017) and Wang et. al (2004). This research also understood commitment as an attitudinal dimension (Kuiken et al., 2020; Gustafsson et al., 2005).
and loyalty as a conceptual building that represents both behavioral and attitudinal aspects of customer's responses (Gorlier and Michel, 2020; Evanschitzky et. al., 2006). This approach differentiates among the behavioral (loyalty) and the attitudinal (commitment) aspects of the customer's responses to CRM quality delivered by a company.

All the variables were operationalized as first-order factors, except for service quality which was measured as second-order factors on the structural equation model. This methodology was determined appropriate as the focus of our research was to examine a nomological structural equation model compiled of CRM quality, company reputation, customer loyalty, service quality, customer satisfaction, and customer value. The questionnaire was developed with 7-point Likert scales (1= strongly disagree; 7= strongly agree) from existing literature were used (see Appendix A). Finally, we used SEM analysis on SmartPLS version 3.3 to investigate this moderated mediation research model.

IV. FINDINGS AND RESULTS

The research investigated the roles of customer relationship management (CRM) quality and company reputation on the relationship between the service evaluation variables of service quality, customer value and customer satisfaction toward customer loyalty. Our research data processed and analyzed with SPSS version 25 from IBM and SmartPLS, which was conducted in with such as data preparation, descriptive statistics analysis, and Structure Equation Model (SEM) measurement as hypothesis test on research model.

4.1. Preliminary analysis and measurement model

This research adapted the preliminary analysis and measurement parameter from existing literatures, such as: convergent validity, discriminant validity, composite reliability, and Cronbach's Alpha, was performed in SmartPLS to assess the dimensionality and psychometric properties of the constructs in the context of our research. Using the overall model fit, such as: SRMR; d_ULS; d_G; NFI; RMS_theta, we run a bootstrapping in SmartPLS with all the variables based on research model (i.e., second-order method on service quality with five dimensions with the items measuring each dimension parcelled; and customer loyalty). The overall measurement model showed good fit or acceptable fit (SRMR =0,063; d_ULS = 3,082; d_G = n.a.; NFI = n.a.; RMS_theta = 0,164), In addition, convergent validity with all the outer loadings being significant and greater than 0.70 and had average variance estimates (AVEs) of above 0.50. Discriminant
validity was supported as Fornell-Larcker analysis and cross loading measure through the constructs’ AVEs were greater than the squared correlation coefficient of the respective paired constructs (Fornell and Larcker, 1981)—see Table 1. In addition, Heterotrait-Monotrait (HTMT) showed significant values (result on $0 \leq x \leq 1$ as good fit). Also, reliability analysis presented by composite reliability that the research model had significant and greater than 0.70. Then, the Cronbach’s Alpha of above 0.50 which was showed the significance of reliability analysis on construct measured and indicating adequate convergence or internal consistency (Hair et al., 2006). The outer loading, Average Variance Extracted (AVEs), composite reliability, and Cronbach’s Alpha are exhibited in Table 1.

| Table 1. Average Variance Extracted (AVEs), Composite Reliability, and Cronbach’s Alpha |
|---------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Variables                                  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
| 1. Service quality - Reliability           | .943 |     |     |     |     |     |     |     |     |     |
| 2. Service quality - Assurance             | .659 | .936 |     |     |     |     |     |     |     |     |
| 3. Service quality – Tangibles             | .672 | .674 | .920 |     |     |     |     |     |     |     |
| 4. Service quality – Empathy               | .722 | .754 | .758 | .937 |     |     |     |     |     |     |
| 5. Service quality – Responsiveness        | .721 | .783 | .677 | .709 | .932 |     |     |     |     |     |
| 6. Customer satisfaction                   | .671 | .642 | .671 | .714 | .674 | .886 |     |     |     |     |
| 7. Customer value                          | .582 | .602 | .545 | .591 | .612 | .619 | .908 |     |     |     |
| 8. CRM quality                             | .571 | .599 | .561 | .624 | .564 | .686 | .646 | .855 |     |     |
| 10. Company Reputation                     | .597 | .556 | .593 | .595 | .545 | .651 | .574 | .714 | .657 | .840 |
| **Average Variance Extracted**            | .890 | .877 | .846 | .878 | .868 | .785 | .824 | .732 | .753 | .706 |
| **Composite Reliability (CR)**             | .942 | .934 | .917 | .935 | .929 | .880 | .903 | .932 | .938 | .923 |
| **Cronbach’s Alpha**                       | .876 | .859 | .818 | .861 | .848 | .730 | .789 | .908 | .918 | .896 |
4.2. The mediating effect of CRM quality

We investigated the result of H4a-H4c, we conducted structural equation modelling (SEM) using the SmartPLS software. Then, we estimated a SEM model in which service quality, customer value and customer satisfaction were the independent variables, CRM quality the mediator and customer loyalty the dependent variable (see Fig.1). As shown in Table 2a, the results of the SEM model shows that all the direct effects of service quality, customer value and customer satisfaction on CRM quality are statistically significant. CRM quality is found to be positively associated with loyalty (SLF > 0.407; T-value > 4.566; p > 0.000), supporting H3.

In analyzing the indirect effects of service quality, customer value and customer satisfaction on customer loyalty via CRM quality, a path analysis was conducted using bootstrapping method in SmartPLS (Henseler et al., 2014). First, the direct effects of service quality (SLF >0.075; T-value > 0.626; p > 0.266), customer satisfaction (SLF >0.198; T-value >1.98; p > 0.024), and customer value (SLF >0.064; T-value > 0.852; p > 0.197) on customer loyalty are only customer satisfaction significant (see Table 2a). Then, service quality is not found to be positively associated with loyalty, not supporting H1, but H2 had supported.

Having established these direct effects, the indirect effects were then examined, and the results are shown in Table 2b. The indirect effect of service quality on loyalty via CRM quality is not significant (SLF >0.011; T-value > 0.272; p > 0.393). However, the direct effect of service quality on loyalty is also not significant, which is showed on H1 not supported, suggesting that CRM quality partially mediates the effect of service quality on loyalty, H4a was partially supported. Next, the indirect effect of value on loyalty via CRM quality is significant (SLF >0.094; T-value > 2.744; p > 0.003). Hence, CRM quality fully mediates this link as the direct effect of value on loyalty is not significant, in support of H4b. Finally, the indirect effect of satisfaction on loyalty via CRM quality is significant (SLF >0.095; T-value > 2.62; p > 0.004), but since the direct effect is still significant. Therefore, CRM quality partially mediates the effect of satisfaction on loyalty, in partially support of H4c.

Table 2. Result for the direct and indirect effects of service quality, value, and satisfaction on loyalty mediated by CRM quality.

<table>
<thead>
<tr>
<th>a) Direct effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct relationship tested</td>
</tr>
<tr>
<td>Service quality → Customer loyalty</td>
</tr>
</tbody>
</table>
Customer value → Customer loyalty  
0.064  0.852  0.197

Customer satisfaction → Customer loyalty  
0.198  1.980  0.024

CRM quality → Customer loyalty  
0.407  4.566  0.000

Service quality → CRM quality  
0.027  0.280  0.390

Customer value → CRM quality  
0.231  4.003  0.000

Customer satisfaction → CRM quality  
0.234  2.803  0.003

<table>
<thead>
<tr>
<th>Indirect relationship tested</th>
<th>SLF</th>
<th>T_value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service quality → CRM quality → Customer loyalty</td>
<td>0.011</td>
<td>0.272</td>
<td>0.393</td>
</tr>
<tr>
<td>Customer value → CRM quality → Customer loyalty</td>
<td>0.094</td>
<td>2.744</td>
<td>0.003</td>
</tr>
<tr>
<td>Customer satisfaction → CRM quality → Customer loyalty</td>
<td>0.095</td>
<td>2.62</td>
<td>0.004</td>
</tr>
</tbody>
</table>

b) Indirect effects

4.3. The moderating effect of company reputation

To analysis H5a-H5c, we performed moderated mediation test on our construct using bootstrapping method via SmartPLS developed by Little, Bovaird, & Widaman (2006). The result for the moderating effect of company reputation were exhibited in Table 3. Then, the direct effect of company reputation on CRM quality is significant (SLF > 0.341; T\_value > 4.829; p > 0.000), Thus, it can be categorized as pure moderator, which is the hypothesis result has not supported, or quasi moderator, that the hypothesis has result supported.

The effect of service quality on loyalty through CRM quality is positive and significant (SLF > 0.167; T\_value > 1.969; p > 0.025). This means that company reputation as quasi moderator for service quality, which the indirect effect of service quality on customer loyalty via CRM quality is stronger when perceived company reputation is high than when it is low, so H5a was supported. However, the effect of customer value on loyalty via CRM quality is negative and significant (SLF
> -0.19; \( T_{\text{value}} > 2.273; p > 0.012 \), so H5b was partially supported. This means that the mediating effect of CRM quality is stronger when perceived company reputation is low during COVID-19 pandemic. Next, the effect of satisfaction on loyalty via CRM quality is negative and significant (SLF > -0.19; \( T_{\text{value}} > 2.536; p > 0.006 \)), in partially support H5c, that the indirect effect of customer satisfaction on loyalty via CRM quality does not vary significantly when perceived company reputation is high during COVID-19. Finally, the company reputation as moderator variable took roles as quasi moderator on this research model, which has a role as independent variable and moderating variable at once.

Table 3. The effects of service quality, value, and satisfaction on loyalty via CRM quality moderated by company reputation.

<table>
<thead>
<tr>
<th>Construct</th>
<th>SLF</th>
<th>( T_{\text{value}} )</th>
<th>( p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQxCR ( \rightarrow ) CRM quality</td>
<td>0.167</td>
<td>1.969</td>
<td>0.025</td>
</tr>
<tr>
<td>(Service quality on loyalty via CRM quality moderated by company reputation)</td>
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<td>0.012</td>
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<td>Company reputation ( \rightarrow ) CRM Quality</td>
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<td>0.000</td>
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V. DISCUSSION

From the result of this research, several findings are noted to form the conclusion, which was explained these effects in a context CRM quality and company reputation, characterized by long-term relationship between company and its customer. First, CRM quality has greater direct association in building customer loyalty than customer satisfaction toward
customer loyalty, in the B2B context during COVID-19 Pandemic to maintain customer intimacy (trust, commitment, and communication quality) to bring long-term partnership with customer in the tough condition. Second, CRM quality has greater mediating effect on the relationship customer value toward customer loyalty, from insignificant become significant. Then, it could be full mediation. However, CRM quality only has partial mediation effect on customer satisfaction and service quality variables to customer loyalty. Thus, PT XYZ’s CRM quality able to support customer perceived value during COVID-19 pandemic and maximize customer loyalty.

Third, the indirect effect of service quality on customer loyalty via CRM quality is stronger when perceived company reputation is high than when it is low. However, the indirect effect of customer value and customer satisfaction on customer loyalty via CRM quality is weaker when perceived company reputation is high during COVID-19 pandemic. Thus, PT XYZ with high company reputation focus on the service quality (vs. customer value and satisfaction) through operation excellence during COVID-19 pandemic. Finally, service quality has weak direct association in building customer loyalty (not supported). This result was contradiction with SERVQUAL theory. According to Zeithaml et.al, (1996) stated that SERVQUAL as a foundation of customer loyalty. However, several items of efficiency, profit, and price war has influence B2B loyalty during recession, belong to the variable service quality, price rationalization and rationality more vital (Agostini et al., 2017; Hetesi, 2014). Thus, customer loyalty in the B2B context is maintained during recession, if the customer obtains service quality that has an impact on their expected profitability through efficiency and/or price war in their supplier. Likelihood, these findings the spurious nature of service quality and the need to further investigate other factors that reflect the quality – loyalty relationship in the middle of economic recession (Agostini et al., 2017; Hetesi, 2014).

VI. CONCLUSION

Every company strives to manage customer loyalty for their competitive advantage both in the rapidly growing economy and vice versa (Leonidou et al., 2017; Mei- Lien Li et al., 2012). This research has main objective to investigate the customer loyalty concept with a particular variable on service quality, customer satisfaction, customer value, Customer Relationship Management (CRM) quality and company reputation, which has mediating roles (CRM quality) and moderating roles (company reputation) as the main research model. This research also emphasizes on customer loyalty for B2B context in the middle of recession, that was represent on COVID-19 pandemic impact toward both global and domestic economic.

Based on the previous chapter and analysis that already have been discussed, this chapter derived some conclusions to elucidate the research objectives. By Adapting the integrated model that was proposed by Nyadzayo and Khajehzadeh (2016) and the
substitution variable of company reputation to customer loyalty that derived from Walsh et.al., (2009) and Özkan et al., (2019), our conclusions are as follows:

6.1 Theoretical Contribution

Our research has contribution to the services marketing and CRM literature in the various ways. First, this study introduced customer relationship management (CRM) quality as a complementary explanation that mediates the effect of service quality, customer satisfaction and customer value on customer loyalty particular in the B2B context. Previous research has delivered the direct effects of service quality (Huang et al., 2019; Hawkins et al., 2015), customer satisfaction (Lee et al., 2019; Russo et al., 2016), customer value (Gligor et al., 2020). Past study also confirms the mediating effect of trust and commitment on the relationship toward customer loyalty (Nyadzayo and Khajehzadeh, 2016). The mediating effect of commitment and trust as separate factors on the relationship among customer satisfaction and customer loyalty (Othman et al., 2020); and the mediating effect of equation model on the relationship among service quality and customer loyalty (Rajeswari et al., 2017; Chen and Hu, 2013). Our study, however, established an alternative research model of the antecedents to customer loyalty that integrates the three service variables with CRM quality (a mediator) conceptualized as a two-dimensional construct (trust and commitment).

Second, this research also conceptualized the research model with moderating effect of perceived company reputation on the mediation model of customer relationship management quality on relationship between service quality, customer satisfaction and customer value toward customer loyalty. In particular, the impact of service quality on customer loyalty through CRM efforts is highly congruent with a stronger company reputation, yet the indirect effects are relatively marginal when company reputation is weaker. Prior study also explains that customer loyalty is a direct function of relationship quality (Petzer and Van Tonder, 2019) and company reputation (Özkan et al., 2019; Chen & Chen, 2009).

Third, the boundaries of service evaluation as the antecedent of customer loyalty during COVID-19 pandemic, particularly economic recession, given the alternative strategy to maintain loyalty with manage customer needs and expectation through CRM quality and current company reputation in the B2B context. In addition, major company both B2C and B2B constantly improve their service quality, then impacted to customer loyalty increasing. On other hand, several items of efficiency, profit, and price war has influence B2B loyalty during recession, belong to the variable service quality, price rationalization and rationality (Agostini et al., 2017; Hetesi, 2014). Then, customer loyalty in the B2B context is maintained during recession if the customer gains service quality that has an impact on their adequate profitability through efficiency and/or price war. Finally, Nyadzayo and Khajehzadeh (2016) recommends
that the use of their research model "... cannot be immediately applied to other industries and/or to business-to-business (B2B) contexts...". Therefore, we make a contextual contribution to research by focusing on the heavy equipment distributorship industry in the B2B context based in developing country during COVID-19 pandemic.

6.2. Managerial Implication

This research generated three significant insight and implication toward managerial, especially in the field of heavy equipment distributorship. First, this research highlights how importance of CRM quality in affecting the customer loyalty in long term perspective, compares to service quality and customer satisfaction when COVID-19 pandemic. The first insight that the roles of our people who maintain relationship toward customer is highly fundamental on B2B context in the time of COVID-19 pandemic. Thus, the most of marketing program would be secure relationship and partnership, which emphasize on building trust and commitment dimension, for current precious customer in the meanwhile, COVID-19 pandemic. On other hand, company should manage the balance financial perspective (cashflow, profitability, cost efficiencies) with customer perspective (customer satisfaction, customer value, customer loyalty), to guarantee the company sustainability for future.

Second insight explains about CRM quality, as mediating roles, capable to provide influence on the relationship customer satisfaction and customer value toward customer loyalty, but it was not support service quality all along COVID-19 pandemic. While customer already understood on pandemic condition is getting lower service quality, for example: lockdown policy imposed as Healthy Protocol from government in Jakarta, so we cannot meet and repair customer heavy equipment immediately. However, CRM quality is relevance to lever customer value and customer satisfaction. It can be possible executed by online communication/ online meeting. Furthermore, company should be revamped the customer satisfaction level and customer value offering to maintain customer loyalty all the while recession period, with strengthen communication quality through integrated CRM (unit – product support). Thus, customer value and customer satisfaction program (definition, activities, critical success factor and timeframe) accommodate Healthy protocol and customer expectation.

Finally, the result of this research also explains that company reputation negatively effect on the relationship between customer satisfaction and customer value, except service quality, due to COVID-19 pandemic, which was economic recession. Several customers had perception on their financial issue occurs and company as highly regarded and well-establish company, directly influence customer to increase their expectation and satisfaction level. Occasionally, customer focus on their benefit and interest, impacted to high expectation on their partner, who would be provide support and aid, cause the other result that customer dissatisfied because company cannot fulfil their expectation, customer assume that PT XYZ is
not committed anymore and switch to others brand/supplier. As marketing practitioner, they should realize the customer voice and latent needs. Then, they should communicate actively to manage expectation and satisfaction parameter the time between COVID-19 pandemic. The marketing program which would be revamped the marketing concept, content and context is very crucial while PT XYZ has extraordinary company reputation, as heavy equipment distributor market leader in five consecutive years. Thus, the negative influence of company reputation as moderating effect on the relationship between customer value, customer satisfaction toward CRM quality, manage properly and reasonable for long term profitability and customer engagement.

6.3. Limitations and areas for future research

This research also has limitation like in other studies. This particularly research has its limitations, both in methodology as well as methodology. Several limitations acknowledged in executing this research. First, this research refers to the similar research model conducted by Nyadzayo and Khajehzadeh (2016) with slight modification or additional path derived from Walsh et al. (2009). This research modified moderating variable from brand image variable to company reputation. In other hand, PT XYZ as the research object had multi brand as end-to-end solution for mining contractor. Therefore, moderating variable, was selected, adjusts with PT XYZ business context and its character so that the results of the study can more explain the customer loyalty at PT XYZ as the Heavy Equipment distributor meanwhile the COVID-19 pandemic period. Second, it also has time constrains to complete all stages of research adequately. Therefore, in the technique sampling, based on Slovin technique sampling calculation requires 863 samples, but only determined for up to 200 samples collected from the 2000s customer companies, who had transaction at the time April 1 - December 31, 2020. The sample collection limited for two weeks only. Consequently, the result of this research could not be generalized for the whole customer company at PT XYZ and even represent Indonesia heavy equipment distributor in general. Third, this study scope is limited to B2B context in Indonesia Heavy Equipment Distributorship, especially at PT XYZ, as the market leader Indonesia Heavy Equipment Distributorship for five consecutive years. If other research in the different industry, such as customer-to-customer and business-to-customer or other business context, might be had different result. Then, its scope was Heavy Equipment Distributorship Industry, with B2B character, which might not represent B2B context in Indonesia as a whole or other countries. Finally, this research scope was limited on COVID-19 pandemic period. As a result, other similar studies and using the same variable have the potential to produce different insight.

The limitation of this research was provided room for development for further research. Researcher identified that several recommendations could be applied for the future analysis for some consideration. First, the future research could modify research model in this study.
and use additional variables than this research variables, or redefined intervening variable and moderating variable on the similar business context, B2B. Thus, it will provide new insights and might be useful for the heavy equipment distributorship industry in Indonesia. Second, this study taken B2B context to deep investigate relationship on customer loyalty model, especially on heavy equipment distributorship with all of sector (mining, agrobusiness, forestry, construction, government). For the future research able to study customer loyalty in the different business context, for example: marketplace, and business-to-customer (B2C), Future study will deliver distinctive insights and useful for the industry player in Indonesia. Third, this study has been held for specific timeframe, was until COVID-19 pandemic, because this pandemic creating new normal for current major business both global and domestic. Thus, the next research able to take different timeframe that after COVID-19 pandemic and economic recovery to digging new insight for selected industry and business context in Indonesia. Fourth, its questionnaire being the only primary data sources used in this study, qualitative data methods through in-depth interview and/or focus group discussion could be include for future research to obtain more depth point of view and information that support the research with similar B2B context. Finally, this research taken questionnaire from respondents who spread on Indonesia width. The next study can limit the geographic spread of respondent on the selected area, more focus to learn and analysis the customer loyalty on that area. In the future, the similar study applied that cover geographical dimension.

**Appendix A. Outer Loading Analysis**

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<th>Indicator</th>
<th>CRM</th>
<th>CR</th>
<th>CL</th>
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*Company Reputation as moderator variable

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