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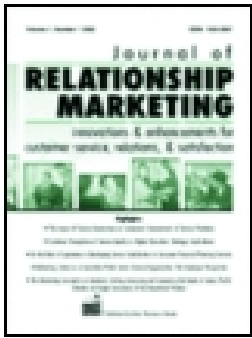
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Electronic Customer Relationship Management and Company Performance: Exploring the Product Innovativeness Development

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ABSTRACT

The concept of this research springs from the controversy of previous research findings on the effect of Customer Relationship Management (CRM) which is seen as an integrated concept and applied only to large companies and is rarely to small and medium enterprises (SMEs). The main purpose of this research is to build a model and to investigate the effect of e-CRM capability, which is a development of the traditional CRM with internet technology support, as an effort in improving the marketing performance of SMEs through the exploration of innovative products development to address the gap. Innovation on products and services is a key component of SMEs business as a series of efforts to enhance their competitiveness in attaining superior business performance. However, SMEs have to be wary of innovation made if it is unplanned and not knowing their customers well. CRM comes to light as a management approach that enables companies to identify, fascinate, and increase profitable retention of customers through a good management relationship with customers as a support for innovative product development capability. The design of this research was descriptive research design. The data collection employed survey method with questionnaires distributed to 150 respondents of owners and managers of SMEs in Indonesia. The questionnaires were then processed and analyzed with Structural Equation Modeling (SEM) with Amos 20.0 software.

KEYWORDS

CRM; e-CRM; product innovativeness development; customer knowledge; marketing performance

Introduction

Small and Medium Enterprises (SMEs) are always associated with their ability on product innovations to become a leading supporting sector for economy of a country. SMEs have a huge potential market opportunity; hence, they must focus on identifying the new opportunities by actively innovating to create values for customers in building a profitable business

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(Shane & Venkataraman, 2000). Every opportunity identified is expected to create new products or services, markets, production processes, materials, or new ways in utilizing the existing technologies (Barczak & Kahn, 2012; Chen, Damanpour, & Reilly, 2010; Schumpeter, 1934). Products and services innovation is the key component is SMEs business as a series of efforts to keep growing (Georgellis, Joyce, & Woods, 2000). The argument is supported by other researches like Lee and Hsieh (2010); Li, Huang, and Tsai (2009) in which SMEs with powerful innovation capabilities are able to enhance their competitiveness against competitors, which means allowing them to attain superior performance.

Product development is a process of discovering new ideas on a product and service including changing, adding, or reformulating some of the existing main attributes in terms of design, brand, and quality. Product development is a series of a company's activities conducted which is committed from market opportunities analysis and ends with the creation of demand, markets, and delivery channels (Harrison & Waluszewski, 2008). The purpose of product development is to serve the available market today by means of increasing sales activities, attempting to discover new and better products, as well as strengthen activities of product research and development. New product development is very influential to improve a company's performance, however, a potential risk of failure in the new products that will be accepted by the market may occur (Ernst, Hoyer, Krafft, & Krieger, 2011). This argument is in line by Nosheen, Masood, and Muhammad (2011) which emphasizing Ernst statement with Customer Relationship Management (CRM) concept as a means of new product development based on customer expectations to achieve company's performance.

The concept of this research springs from the controversy of previous researches on CRM seen as an integrated and can only be implemented to large companies. The implementation CRM concept for SMEs is still rare. However, Jarad, Palacios, Tafur, Gulati, and Jain (2011) argued that SMEs are able to implement the CRM on their activities as their main philosophy of business recognizes that customers are the soul of every business. Every business person tries to possess a personal relationship with the customers. Technology plays an important role in the implementation of CRM in SMEs to improve the customers' loyalty (Kim-Soon & Zulkili, 2012). In contrast, (Harrigan, Ramsey, & Ibbotson, 2008) argued that in the context of SMEs, e-CRM does not give influence on the business performance. The cause of insignificance was that the SMEs which used e-CRM did not establish a relationship with the customers and help the SMEs in measuring customers' profitability, but, e-CRM was used for international market expansion. The main purpose of this research is to investigate and build a model on the effect of e-CRM capabilities applied in SMEs towards

marketing performance and is mediated by the ability of innovative product development.

Literature review and hypothesis development

Customer relationship management (CRM)

Customers have a competitive strength through their bargaining power in order to fulfill their needs and desires. Nowadays, companies are trying to win the hearts of customers amid the tighter level of competition. Efforts to win the customers' hearts can be achieved by knowing and meeting the customers' needs quickly and accurately (Anderson, Pearo, & Widener, 2008; Biswamohan & Bidhubhusan, 2012; Doorn & Verhoef, 2008). Customer Relationship Management (CRM) is a strategy and effort to intertwine relationships with customers and provide satisfying services to them (Millar & Rogers, 1987; Mithas, Krishnan, & Fornell, 2005; Ndubisi, Malhotra, & Wah, 2008). The utilization of CRM will help a company in knowing what is expected and required by customers to create an emotional bond in order to establish a close and open business relationship and also a two-way communication among them. Thus, customers' loyalty can be maintained and is not easily switch to other products or brands.

CRM appears to support the view that to develop a relationship with customers is the best way to create loyal customers and obviously the loyal customers are more profitable than those are not (Taleghani, Gilaninia, & Mousavian, 2011). CRM can be defined as a managerial approach that enables a company to identify, attract, and increase retention of profitable customers (Gronroos, 2000; Parvatiyar & Sheth, 2001; Payne & Frow, 2005). More specifically, Kalakota and Robinson (2001) defines CRM as an integration of coordinated sales, marketing, and services. Broadly speaking, CRM is said to be an integrated information system used to plan, schedule, and control pre-sales and post-sales activities in a company.

CRM backs up a company to provide services to customers in real time by building a relationship with every valuable customer through the utilization of information on the customer. Based on the information, the company can formulate variations of deals, services, programs, ordering processes, and media usages. In addition, the company can also carry out an analysis on the customer based on certain criteria to generate a variety of information comes in; either questions, complaints, or suggestions from customers which often help the company in improving products and services (Ernst et al., 2011). Through CRM implementation, the company has formed a closer relationship with customers in whom the company is able to figure out the customers' needs and provide a selection of products and services according to their demands.

Electronic customer relationship management (e-CRM)

Advancements in technology, computer, and telecommunication have supported the development of internet technology. The rapid advancement of technology in all sectors have also encouraged the progressive development of the CRM concept that leads to the emergence of electronic Customer Relationship Management (CRM) concept which actually continues to implement traditional CRM principles yet enhanced with internet technology assistance. e-CRM is an internet-based technology application to reach the CRM objectives. With the internet, the achievement for CRM goals can be done faster and more maximal (Nosheen et al., 2011). e-CRM was originally identical to the use of email as interpersonal communication between companies and customers. Currently, e-CRM is getting bigger along with the development of internet access through various devices such as desktop, laptop, mobile phone, blackberry, android, and others. Companies begin to recognize the significant potentials in acquiring and retaining customers through online system.

e-CRM is the latest technique used by companies to improve their marketing skills and capabilities. The development of marketing through online media is increasing in which e-CRM is helpful in managing relationship with customers and provide amount of benefits for the companies like increasing the companies' profit, creating satisfactory services by using integrated information, and displaying consistency, procedure and process of handling problems (Kennedy, 2006; Kim-Soon & Zulkili, 2012). Companies which are able to implement e-CRM properly, will gain some benefits include an increase in customers' satisfaction and loyalty, a more effective marketing, services and a better support from customers, and cost reduction (Scullin, Fjermestad, & Romano, 2004). The quality of customer relationship management online should be backed up with e-CRM features of interface. According to Feinberg, Kadam, Hokama, and Kim (2002) the common features of e-CRM cover site/mobile customization, alternative offers, local search engine, membership, mailing list, and chat which serve as website flexibility in performing customization, personalization, and quality interaction with customers.

e-CRM capability and product innovativeness development

Basically, every company has a goal to gain profits as maximum as possible. But sometimes, the companies tend to forget that customers are one of the pivotal assets in helping to achieve the goal. Once the transaction is completed, sustainable contacts between the buyer and the company also end. Consequently, the company loses a chance of gaining further profit from the same buyer. The company must be able to establish a good relational

capability with its customers to possess high loyalty that eventually will increase the performance (Weng & Huang, 2012). Relational capability is an intangible resources yet able to create a social relationship that can be used to facilitate every activity in reaching its competitive excellence (Luo, Griffith, Liu, & Shi, 2004). Actually, today's competition tends to emphasize more on how the company realizes the main target of the sales, marketing, and service processes. The effectiveness of relational capability development of an organization can be measured by using several dimensions like personal interaction, mutual trust, personal friendship, and developed learning (Kale, Singh, & Perlmutter, 2000). Companies manage to treat their customers well through e-CRM capabilities established to arise the customers' loyalty to the products and further to the companies.

Companies implementing customer relationship management are not just aiming to retain customers but also to encourage the customers to be actively interact by giving advices or ideas to improve the companies' products and services (Ramani & Kumar, 2008). CRM helps companies in improving their knowledge on customers' tastes and preferences. The CRM applied by the companies is acknowledged as an effective and efficient means in developing innovation capabilities and providing sustainable competitive excellences (Ramani & Kumar, 2008; Sahay & Ranjan, 2008). A research by Lai, Griffin, and Babin (2009) revealed that the utilization internet as a channel for trading and information has providing opportunities for businesses to use the internet as a means of managing the customer relationship. Ernst et al. (2011) indicates that companies with customer orientation will devote their efforts to strengthen the CRM through customers participation at an early stage to give practical experiences in facilitating new product development or modifying the existing products. CRM has been known for its positive effects on the innovation abilities; hence, the companies which receive important information from customers may develop innovative products according to the needs of the target market (Bicen & Hunt, 2012; Ottum & Moore, 1997).

H₁: The higher e-CRM capability, the higher product innovativeness development.

Product innovativeness development and marketing performance

Innovation era arises due to the business situation which is influenced a lot of fast paced and hardly predictable changes. The changes are caused by the massive development of information technology, globalization, and democratization (Lai & Lin, 2012; Oakey, 2013). The changes have affected organizations and businesses to continuously seek for a breakthrough in creating and realizing values through innovations (Zhou, Yim, & Tse, 2005). The scope of innovation capabilities comprises technical innovation

and administrative innovation (Chen et al., 2010). Innovation is a multidimensional concept where the producer focuses on products, processes, and services in applying gradual modification (Zhang & Duan, 2010), the organization system as well as marketing system in order to create customer values (O'Cass & Weerawardena, 2010).

Customers basically expect innovative products according to their desires. Usually, innovative products are the results of high creativities since creativity is an integral part of innovation (Sok & O'Cass, 2015). Creativity is not merely enough on ideas, but needs to be implemented on real efforts of innovation to give effects on a company's performance improvement. Product innovation conducted represents the output of new product development and introduction that is successfully accepted by the market (Nelly, Filippini, Forza, & Hii, 2001). Product innovation done by the companies is a crucial strategy for them to keep following the market, technology, and competition (Lai & Lin, 2012). The innovative products produced by the companies are a differentiator to the previous products or the competitors' through their uniqueness in shape, function, or behavior (Oakey, 2013). Product innovation has become a vital element in a company strategy and planning in answering a variety of reasons to keep in control. Andrews and Smith (1996) assert that the new products must be more innovative for they provide huge support in improving the marketing performance. Creativity has a quite crucial influence on marketing performance because it is highly profitable to develop the product for customers prefer products with high creativity and also unique (Varadarajan, 2015). Marketing performance is influenced by environment, product innovation, and market orientation factors which give positive impacts on marketing performance (Sharmaa, Davcik, & Pillai, 2016).

H₂: The higher product innovativeness development, the higher marketing performance.

Customer knowledge sharing capacity and product innovativeness development

A change paradigm in business, which previously oriented on products, now towards customer orientation has demanded companies to be active in getting more information on market target and the customers (Nguyen, Sherif, & Newby, 2007). A company's existence cannot be separated from the customer role as the user of the products and services produced as one of the determinant factors in improving or achieving the goal. Satisfaction received by customers is one of the pivotal factors in developing a business. To improve the customer satisfaction, every company must be able to intertwine a two-way communication and interaction with the customers

that should then be followed up with the management of every knowledge of customers on the company's products (Abrams, Cross, Lesser, & Levin, 2003; Åkerman, 2014). Entrepreneurs have placed knowledge as an organizational motor resource to become a competitive organization. Nonaka and Takeuchi (1995b) suggested that knowledge creation is the essence of innovation where the advancement of companies in Japan is defined by their skills and expertise in creating knowledge within the organizations.

Customer knowledge means the form of knowledge owned by an organization in which the availability is derived from the customers. Customer knowledge is an essential and strategic issue in determining business success, every company which has comprehended and possessed customer knowledge does not get any guarantee of success, however, the knowledge should be managed well that then can be utilized by the company as a strategy in increasing values for the customers. Knowledge integration capability is a company's ability in generating new combinations of the existing knowledge and exploiting potential knowledge which is untouchable by technology (Kogut & Zander, 1992). The extent of which a company has the abilities to find out, attempt to comprehend, and understand, and distribute every customers' desire may become the parameter success of the company's business. The abilities will assist the company in creating values through effective transformation starts from knowledge input to the output produced and serve as a platform in generating new product combination in the market (De Boer, Van den Bosch, & Volberda, 1999). Customer knowledge is the most appropriate resource to improve values of customers (Novo, 2011). Darroch (2005) stated that a more innovative company is the one that is able to acquire, deploy, and responsive to knowledge.

H₃: The higher customer knowledge sharing capacity, the higher product innovativeness development

Customer knowledge sharing capacity and marketing performance

Although the majority of companies understand the importance of managing the customers' knowledge, yet many are failed in the accuracy. In fact, many of these companies only accommodate any form of customer information into a data base which is not processed further into meaningful information as the basis for the company in taking strategic decisions. A company with the ability in acquiring customers' knowledge is believed to have more understanding on customers, like the customers' characteristics, needs, and preferences (Carbonell, Rodríguez-Escudero, & Pujari, 2009). Concerns over knowledge management is increasing in today's global business environment where the knowledge management regards intellectual capital is manageable and provides framework to assist companies in

exploiting the valuable strategic resource. Su, Chen, and Sha (2006) identifies three key dimensions on customer knowledge; namely, knowledge ‘for’ customers, knowledge ‘about’ customers, and knowledge ‘from’ customers.

Marketing performance is the output of all efforts and strategies and also the preceded marketing performance done by a company. Best (2009) defines market-based performance approach as a marketing performance measurement referring to the external and market conditions where the company runs the business, for instance by including market growth, competitive pricing, relative product quality, and customer satisfaction factors. The basis of market-based performance is a commitment to measure parameters that illustrate the development of marketing performance and profitability rate of marketing. This market-based performance measurement is equipped financial performance measurement which is commonly used in companies that focus on internal factors such as sales revenue, net profit, return on sales, and return on investment.

By knowing, comprehending, understanding, interacting, and channeling the desires of customers; satisfaction will be increased which in turn lead to more loyal customers on the company’s products and services. A company will possess an ability to integrate knowledge once it has three important dimensions, i.e., system capability, coordination capability, and socialization capability (De Boer et al., 1999). Loyal customers will certainly make repeat purchasing and invite friends and colleagues to use the company’s products. This will of course directly improve the marketing performance and make the company’s goal achieved.

H₄: The higher customer knowledge sharing capacity, the higher marketing performance.

Research framework

Based on the elaborations of literature review and hypotheses, we propose a research framework as illustrated in [Figure 1](#).

Research method

Population and sample

This research was done in Small and Medium Enterprises in West Nusa Tenggara province, thus, most used primary data gathered in the field. The population was all the owners and managers of SMEs in the province. The sampling method was done with non-probability sampling employing purposive sampling technique where the respondents were selected based on certain criteria set. The criteria of sampling were 1) SMEs which have been

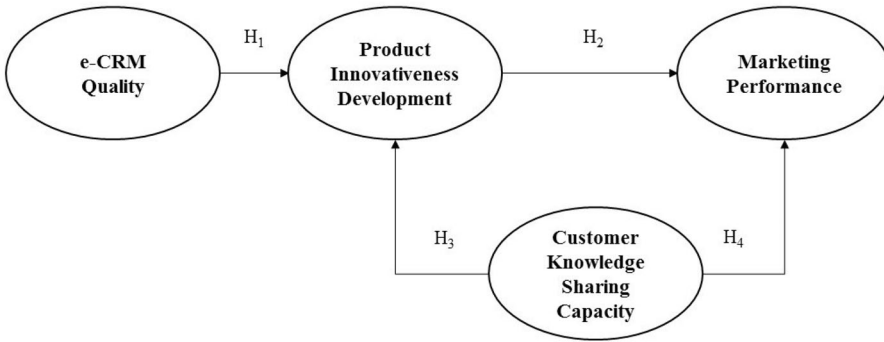


Figure 1. Product Innovativeness Development Framework.

using web and internet technology in their business processes; and 2) SMEs with above 50 million rupiahs of assets.

The analysis tool used was Structural Equation Modeling (SEM) that there were several criteria of research sample fulfillment which should be at least fivefold of the indicator variable number used (Hair, Black, Babin, & Anderson, 2010). This research had 16 indicator variables, so, the minimum samples to meet the assumption of sample adequacy should be 100. Based on the considerations, the samples taken here were 150 respondents to meeting the minimum sample size.

Procedure of research

This research was done by survey so that the data collection was conducted by using a list of statements on questionnaires prepared. The questionnaires used contained two main parts. The first part was about the social profile of the respondents which consisted of respondent's identity and social condition such as: age, sex, occupation, last education, period of business, and company's assets. The second part was about the development of e-CRM usage on the improvement of marketing performance.

Research instrument and measurement

The collection method of primary data in this research was done with survey which aims to gather information from respondents by using questionnaires contained a list of statements directly distributed to the respondents. The questionnaire used consisted of closed and open statements. The closed statements require respondents' responses by giving scores from 1–10 based on Likert scale, where score 1 = strongly disagree and 10 = strongly agree. The open questions were a brief and clear elaboration to support the closed questions to excavate deeper information. The validity

Table 1. Validity and reliability testing results.

Variables	Indicators	Factor loading	Cronbach's alpha
e-CRM capability			
ECC1	Have an online customer database	0.606	0.707
ECC2	Ability to categorize important customers with the data obtained	0.523	
ECC3	Able to provide an efficient individual service with data obtained	0.668	
ECC4	Able to build a good online interaction with the customer	0.723	
Customer knowledge sharing capacity			
CKSC1	The exchange of information or services between enterprise and customer	0.772	0.683
CKSC2	Understand the requirements of customers in order to address them	0.683	
CKSC3	Fill the information needs of the customers in their interaction with the enterprise require	0.719	
CKSC4	Managing the knowledge from customer	0.782	
Product innovativeness development			
PID1	Offering the new product design	0.590	0.827
PID2	Offering the new product features	0.622	
PID3	Offering the new values of product-base local wisdom	0.679	
PID4	Offering the creative product-base customer desire	0.511	
Marketing performance			
MP1	Number of unit selling	0.794	0.855
MP2	Sales growth	0.767	
MP3	Market share	0.735	
MP4	Profitability	0.794	

and reliability testing results for all items used in this research are illustrated in [Table 1](#).

The validity and reliability tests were also done here to assess the research instrument. Validity shows how well the results obtained from the use of measuring instrument based on the theories applied to define construct. The validity test in this research employed construct validity with Confirmatory Factor Analysis (CFA) assisted by SPSS 16.0 software. Prior to factor analysis test, Kaiser Meyer Olkin (KMO) and Bartlett tests were conducted to assess the relation of each variable. The higher KMO score, the more valid items in the questionnaires and the more homogenous variables measured and it requires the score of KMO-MSA must be above 0.5 with level of significance <0.05 that the variables can be predicted and analyzed further (Hair et al., 2010). The result of validity test here showed KMO-MSA at 0.874 with 0.000 of significance level, therefore, all variables used in this research could be analyzed further. In addition, the validity of research instrument here was also determined by the score of loading factor with the requirement of acceptance ≥ 0.40 (Hair et al., 2010). The validity test done had shown that the research instrument used here had loading factor of above 0.40.

Table 2. Respondents profile.

Item	Description	Frequency <i>N</i> = 150	Percentage (%)
Gender	Male	143	95
	Female	7	5
Age	20–30 years old	8	5
	31–40 years old	76	51
	> 40 years old	66	44
Status	Owner	137	91
	Manager	13	9
Education level	High school	63	42
	Under graduate	87	58
	Post graduate	0	0
Period of business	0–3 years	23	15
	3.1–5 years	53	35
	> 5 years	74	49
Asset	50–100 million IDR	21	14
	101–1000 million	104	69
	>1000 million IDR	25	17

Reliability test is used to calculate the dependability and consistency of a research instrument. Reliability of this research was assessed with Cronbach's Alpha coefficient with the limitations of score between 0.6 to 0.8 (Sekaran, 2003). The reliability test done for the research instrument here showed that the Cronbach's Alpha score was more than 0.6.

Research findings

Respondents profile

Respondents of this research were 150 consisting of 143 male respondents (95%) and 7 females (5%). In terms of age, 8 respondents (5%) were between 20–30 years old; 76 (51%) were between 31–40; and 66 respondents (44%) were above 40 years of age. Based on the business ownership status, 137 respondents (91%) were the owners and 13 (9%) were represented by the managers. We also enlisted the period of business, 23 respondents (15%) had less than 3 years of the business, 53 respondents (35%) had run their business between 3.1 – 5 years; and 74 respondents (49%) were more than 5 years. The next category was assets possessed where 21 respondents (14%) had 50 to 100 million rupiahs of assets; 104 (69%) had 101 million to 1 billion rupiahs of assets; and 25 (17%) of respondents had above 1 billion rupiahs of assets. Table 2 depicts the profile of each respondent.

Data analysis results by SEM

The data gathered were then analyzed by using Structural Equation Model (SEM) assisted with AMOS 21 software. Besides that we also utilized maximum estimation method of likelihood (MLE) in SEM model and goodness of fit to assess the normality data in relation to the four constructs and 16

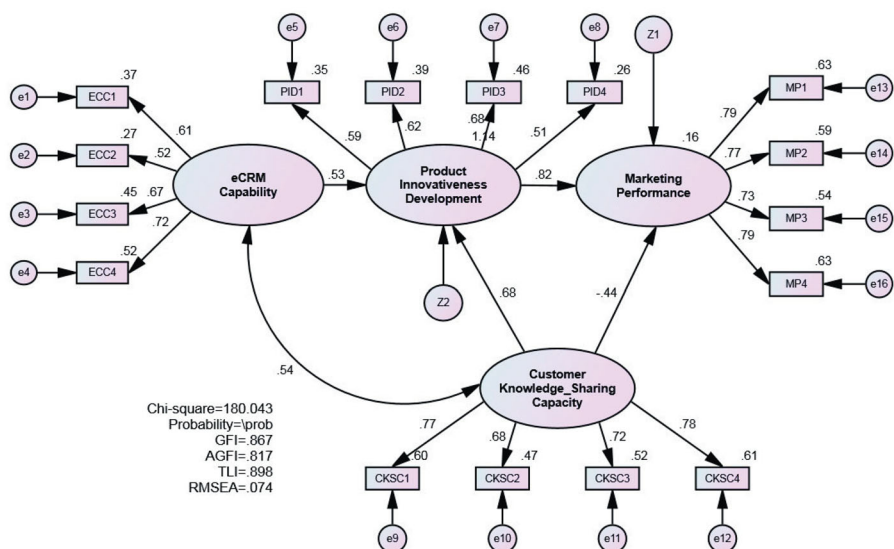


Figure 2. Full Structural Model.

indicators of items. There was no evidence to reject the normality data of this research. The analysis outputs of full structural equation model are presented in [Figure 2](#).

Based on the observations to the figure and graphic of full model analysis, the model showed to have met the fitness criteria as marked by the scores of calculation results. The calculation outputs of some goodness indices to evaluate the overall model goodness used were GFI index (GFI) = 0.867; the adjusted GFI index (AGFI) = 0.817; Tucker-Lewis Index (TLI) = 0.898; and root mean square of approximation (RMSEA) = 0.074. The scores have indicated that the overall model has met the criteria of fit model. The processing output showed that each indicator or measuring dimension of each latent variable showed good results with critical ratio (CR) of above 2.58. The results of hypothesis testing are presented in [Table 3](#) where 3 hypotheses are supported and one is not.

Discussions

The main purpose of this research is to assess empirically the effect of e-CRM capability in improving marketing performance which is mediated by product development innovativeness and supported by customer knowledge sharing capacity. Overall, this research empirically assessed 4 hypotheses and generated several interesting results. Hypothesis 1 (H_1) stated that the higher e-CRM capability, the higher product innovativeness development, and it is supported in this research. This research emphasizes that SMEs with a good e-CRM capability will have the

Table 3. Hypothesis testing results.

Hypothesis		Estimate	S.E.	C.R.	Hypothesis Test
H1	Product_Innovativeness_Development <— eCRM_Capability	.482	.114	4.210	Supported
H3	Product_Innovativeness_Development <— Customer_Knowledge_Sharing_Capacity	.564	.092	6.114	Supported
H2	Marketing_Performance <— Product_Innovativeness_Development	1.041	.361	2.886	Supported
H4	Marketing_Performance <— Customer_Knowledge_Sharing_Capacity	-.462	.296	-1.559	Not Supported

ability in creating and developing innovative products. This research result is supported by the previous researches which found that a company with a good capability of managing relationship with customers will not only succeed in maintaining the loyal customers, but will also encourage the customers to be actively interact by giving ideas to improve the quality of products and services (Ramani & Kumar, 2008), and also to attain the company's competitive excellence (Luo et al., 2004). An interesting fact found in this research is that SMEs in Indonesia have attempted to build the capability of relationship with customers, however, they still have weaknesses in terms of capability in providing efficient individual services based on the data obtained and moreover, the management of customer database is also still weak.

Hypothesis 2 (H_2) declared that the higher product innovativeness development, the higher marketing performance. This research underlines that SMEs with abilities to develop innovative products based on customers' expectations and demands will be able to improve their superior marketing performance. This finding asserts the previous researches in that new product development must be more innovative as it will highly affect on the improvement of marketing performance (Andrews & Smith, 1996), because customers prefer products with high creativity values and unique (Varadarajan, 2015). Marketing performance is affected by environmental, product innovation, and market orientation factors which give positive impact on marketing performance (Sharma et al., 2016). The finding of this research depict that even though SMEs are identical with their innovation capabilities, SMEs in Indonesia are in fact still weak in terms of creative products offering based on the customers' needs besides also the weakness in new products design.

Hypothesis 3 (H_3) proposed that the higher customer knowledge sharing capacity, the higher product innovativeness development, and the testing result supports this hypothesis. This research found that the implementation knowledge management culture in SMEs by improving customer knowledge sharing capacity will encourage the creation of new knowledge that then will be realized into new products, thus, will affect the company's performance. The result is supported by the previous researches which emphasizes that organizational knowledge creation is the key of business

innovation process that eventually will affect the company's performance Nonaka and Takeuchi (1995a). Customer knowledge is an appropriate resource to improve the value from the customers (Novo, 2011). The finding of this research has also shown that SMEs in Indonesia still have difficulties in comprehending the customers' needs well and how to handle them.

Hypothesis 4 (H_4) suggested that the higher customer knowledge sharing capacity, the higher marketing performance, and it is not supported by the research. This research found that customer knowledge sharing capacity does not directly affect on the marketing performance improvement, yet should be mediated by product innovativeness development. This finding is in line with the previous research which argue that a company knowledge managerial implementation through a good knowledge sharing is the essence of innovation that will eventually enhance the performance (Nonaka & Takeuchi, 1995b; Sakakibara, 2003).

Conclusions, managerial implications, limitations, and future research

Conclusions

Customer Relationship Management (CRM) is a topic that has always attracted attention of both academicians and practitioners. Almost all of them still assume CRM as a holistic concept that is helpful in finding and meeting customers' needs quickly and accurately. It will provide satisfaction for customers that will certainly increase the customers' loyalty and take the company to achieve the business performance. The rapid advancement of technology in all sectors has also spurred the progressive development of the CRM concept that brings Electronic Customer Relationship Management (e-CRM) to the surface which still implements traditional CRM principles but is upgraded with the internet technology assistance.

e-CRM supports global communication and collaboration among employees, customers, vendors, and other business partners to enable people from different organizations or locations to cooperate as a virtual team to develop, produce, market, and maintain the products or services. A company's capability of e-CRM is not only in displaying product catalogs and promotion media, yet also used for dialogs, discussions, and consultations with customers online. Hence, the customers can be invited to directly involve in the design, development, marketing, and selling of a product.

Social network sites also facilitate the connection between companies and customers. By utilizing this phenomenon, a company may comprehend the customers' needs and also figure out weaknesses and strengths of their products through customers' comments and ideas in the electronic world (Berthon, Pitt, Plangger, & Shapiro, 2012). Many companies employ

instruments to create connections with customers, let alone the understanding on types and effective of instruments can be a key point factor in assisting the companies in increasing their sales profitability and use them as their marketing strategy. This becomes a company's power in analyzing the customers' preference.

Managerial implications

This research revealed several evidences of data analysis based on the findings of SEM testing results. The results of this research recommend several policy implications with the priority to be given as inputs for actors in SMEs. Here are some strategic alternative recommended: first, customers nowadays are not only bound to mix marketing strategies, either traditionally or through the internet (e-Marketing Mix). To maximize the customers' values, SMEs entrepreneurs may seek to establish long term relationships with customers through e-CRM. Today is the era of marketing which is designed to build a strong relationship with customers and no longer a mass marketing which is filled of waste. This is in accordance to limitations encountered by SMEs in Indonesia. Second, SMEs with high capabilities in developing e-CRM may establish a good relational quality with their customers. It can be done by improving the website display, information provided, ease of access, the availability of a two-way interaction forum between the SME and its customers. Third, SMEs as the motor of economy should remain in their basic format as a type of innovative, proactive, and willing to take risks business; engendering continuous innovation on products and services to reach an excellence performance. Those strategies can be executed through a good customer knowledge sharing capacity between SMEs and their customers for customers today are getting smarter in fulfilling their desires and having higher and higher desires to be involved in the business process.

Limitation and future research

This research does have some limitations. First, the samples used are limited to SMEs in pearl jewelry and handicraft. For future research, the samples can be extended to SMEs in all areas of business. Second, the variables of this research are still very limited in exploring the model of product development innovativeness. The future similar researches are suggested for the researchers to include cultural and gender variables to explore the correlation of customer relationship management access versus information technology usage.

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