

TECHNOLOGY AND CONSUMER RELATIONSHIP MANAGEMENT: A STUDY OF INDONESIAN TRAVEL AGENCIES

Andriyansah, Faculty of Economics and Business, Diponegoro University, Semarang Indonesia and
Faculty of Economics, Terbuka University, Indonesia
Syuhada Sufian, Faculty of Economics and Business, Diponegoro University, Semarang Indonesia and
STIE Bank BPD Jateng, Indonesia
[dx.doi.org/10.18374/IJBR-17-2.2](https://doi.org/10.18374/IJBR-17-2.2)

ABSTRACT

Characteristics of tourism market, which are highly influenced by external conditions, are different from normal market conditions. In this context, technology can serve to minimize the influence of external factors by improving and maintaining consumer relationship and loyalty. Using the data from a survey of 123 travel agency firms in Indonesia, this article examines the effect of technology-based consumer relationship management (CRM), consumer equity faithfulness, and market sensing on the quality of consumer data and CRM performance. The study finds that technology-based CRM and consumer equity faithfulness significantly influence the quality of consumer data and CRM performance. Further, the quality of consumer data influences the performance of CRM. This study also suggests the importance of technology adoption by travel agency firms to improve internal performance, facilitate consumer relationships, and explore new tourist destinations. On the other hand, it shows that company orientation towards market sensing focusing on responsiveness and utilization of tourism at a particular moment can not be used as a determinant for the consumer data development and CRM performance.

Keywords: *Technology-based CRM, market sensing, consumer equity faithfulness, quality of consumer data, and CRM performance*

1. INTRODUCTION

Technology is regarded as the most important means to support the growth of company, development of company, and product development (De Almeida and De Melo, 2015). Utilization of information technology, which has been practiced widely in organizations at this time, is considered to increase the company's growth and develop consumer relationships more meaningfully, so that it can reach a broader segment (Goodhue, et al., 2002).

Management's decision to adopt the technology-based CRM (Consumer Relationship Management) shows a strategic way to particularly provide sales information and sales target analysis required by marketing manager (Gohmann et al., 2005). The technology connected to internet is more likely to give a significant role in managing the relationships between consumer and company. It also benefits the consumer in various matters related the company services (Nikhashemi et al., 2013).

In this context, the use of data and information to both understand and create consumer value is seen to be able to improve the CRM performance. CRM is understood to mean the utilization of potential relationship of marketing strategies and information technology to create long-term relationships between the company, consumers, and stakeholders that benefit the organization. This requires integration of cross function of people, operations, and marketing capabilities by means of information, technology, and applications (Payne & Frow, 2006). Technology adoption and relational improvement in the CRM focus on providing the best service for the customers, i.e. quick transactions in the form of better supply of information in the front-line divisions of the company (Rigby et al., 2003).

The antecedents of CRM have been studied on large scale organizations as well as small and medium enterprises (Krasnikov et al., 2009; Lukkari, 2011). Previous studies have shown that technology adoption can help the firms optimize the frequency of sales and improve sales management and monitoring. Ahearne et al. (2005), Tanner and Shipp (2005), Nasiripour et al. (2014) explained that technology

adoption improves the CRM performance. CRM strategies function to coordinate the business process and transactions, optimize the revenue, and maintain the consumer satisfaction and loyalty (Laudon & Laudon, 2011). Consumer relationship marketing (CRM) based on consumer databases and information system can be considered beneficial to the organization performance and useful to the planning and actions of marketing and consumer retention (Roberts et al., 2005).

However, other studies suggested that technology is less likely to affect the company's growth and consumer service. Technology-based CRM will neither have meaning nor bring benefits if implemented in a weak business practice (Ramsey, 2003). Mohseni et al. (2014) revealed that the application of technology-based CRM can not support the organization's performance to be better.

This study analyzes the role of the adoption of technology in improving the quality of consumer data and CRM performance. To give a comprehensive analysis about the antecedents of the quality of consumer data as a mediating variable, the study also analyzes the factors of data input, i.e. market sensing and relation strategies, i.e. consumer equity faithfulness. This research is expected to contribute theoretically and practically on the adoption of information technology in order to increase the CRM performance in improving long-term relationships between the companies, consumers, and stakeholders.

2. LITERATURE REVIEW AND HYPOTHESIS

Technology-Based Consumer Relationship Management

Collaborative development of consumer relationship management (CRM) through electronic media or e-CRM integrates the companies performance and consumer services (Greenberg, 2001; Soltani & Navimipour, 2016). Berson et al. (2000) suggested that CRM is a growing phenomenon as a result of the progress of internet and web technologies. The implementation of CRM focuses on the interaction on the internet or web-based technology between the consumers and service providers.

CRM is made up of four components, namely information, process, company's data of consumer, and technology (Greenberg, 2004). The data needs to be processed further to generate actual and appropriate information for the decision maker (Payne & Frow, 2006). Avlonitis and Panagopoulos (2005) stated that technology adoption and innovation enable the organization to be more innovative. However, the manager is still required to emphasize on the innovative characteristics of the sales forces and pay attention to their recruitment process as they have to be more familiar with the technology. For the marketing managers, technology-based CRM can be considered successful when it has support from top management that understands the importance of technology infrastructure (Love et al., 2009).

From the consumers point of view, no matter how small the product information is, it becomes crucial in orienting their brand preferences. Companies can take advantage of these opportunities to design a good quality of consumer data. This notion is necessary because lack of products information and company services acquired by the consumers will likely not to be resolved if the company does not understand the desire of the consumers through the use of customer data. As a result, the companies will be too late to maintain a competitive advantage if they do not start to build and maintain consumer relationships (Jain, 2005). Based on the description, we, thus, propose this hypothesis:

H1: *Technology-based CRM significantly influences the quality of consumer data.*

Market Sensing

Companies need to maintain their relationships with the consumers because the products marketed are very vulnerable to negative information from various sides (Einwiller et al., 2006). In addition, the product information does not always send positive meaning to the consumers (Brucks, 1985). Therefore, improvement of consumer relations through market sensing can establish appropriate measures for the managers in decision-making (Pernu et al., 2015).

Mattsson et al. (2015) proposed a critical role of market sensing in shaping the business networks, so that companies more easily understand the dynamics of business, and in directing the companies to achieve business targets. At this point, market sensing can yield knowledge related to the market by using technology that serves as a data bank of real time information (Chen, Huang, Park, & Yen, 2015; Mason, 2012). Olavarrieta and Friedmann (2008) stated that the sooner the companies react to changes in market demand, the sooner the companies gain competitive advantage and profits.

The important role of market sensing for the company deals with how to create a competitive value to generate competitive advantages. In the case of new product development, market sensing will be more useful in understanding the events or phenomena of market trends for product development (Fong et al., 2014). A good market sensing should be able to describe the consumers' experiences and interpret the individual's cognitive structure. In these conditions, the companies can create a framework to access a variety of information that can be used as a guide to understand the consumers and market conditions (Mattsson et al., 2015). Therefore, we propose following hypotheses:

H2a: *Market sensing significantly influences the quality of consumer data.*

H2b: *Market sensing significantly influences the CRM performance.*

Consumer Equity Faithfulness

Johnson et al. (2010) defined consumer equity faithfulness as a firm adherence to the principle that every consumer should be treated according to the potential benefits. Consumer equity faithfulness can be a series of company's actions that are concerned with improving the internal environment to create a structural activity that focuses on the relations and consumers communications (Shah et al., 2006). Companies can create and increase consumer loyalty by producing products or high-value services (Auh et al., 2007). In certain circumstances, the company can choose some of the decisions that are reliable to gain market share by deciding the best option through the utilisation of data and consumer information. A company that focuses on consumer loyalty will improve the quality of consumer data in order to create innovative products or high value services, give the best price, and establish a good relationship with the consumer (Mokhtar & Yusof, 2010).

Anomalies of the customer satisfaction can occur when an organization is concentrated only on the business development of superior products and makes its customers an object that is no longer the center of attention (Levitt, 1960). Normatively, consumers will get satisfaction when the desired product performance exceeds their expectations or the gained products and services value exceed those offered by the competitors. In such a context, consumer loyalty, in essence, can not be determined by the quantity of goods or service purchased, but rather the frequency of the consumer purchases of the company products or service followed by recommendation to the other party (Yusuf, 2012).

The desired outcome of the various programs and company strategies in creating products and high value services to the consumer is the loyalty and consumers continuity in using the products (Cooil et al., 2007; Kumar et al., 2013). Johnson et al. (2012) stated that maintainance of consumer faithfulness influences the company's performance.

Effectiveness in achieving the company profitability will be increased if the company involves initiatives more focused on the consumers. Consumer satisfaction will have implications for the formation of loyalty that encourages the formation of a mutually beneficial relationship between the company and the consumer. Johnson (2010) associated consumer equity faithfulness as a firm adherence to the principles of value of the consumer profitability and CRM processes. Consumer faithfulness increases market growth, information integration, and the adoption of technology-based CRM. Therefore, we propose following hypothesis:

H3a: *consumer equity faithfulness significantly influences the quality of consumer data*

H3b: *consumer equity faithfulness gives positive effect on the CRM performance.*

Consumer Data Quality

The adoption of technology that refers to the data bank could help the company performance in predicting and organizing market phenomenon. The use of data-based technology is based on the company efficiency in conducting consumers research through continuous interaction with them (Chen, Delmas, & Lieberman, 2015; Cheung & To, 2015). Some of the considerations in the use of data-based technology as the basis of quantitative analysis are the cost factor, geography, and demographics of the target market (Chung et al., 2004; Frochot & Morrison, 2000; Haug & Arlbjørn, 2011).

Data owned by the company is not fully usable and brings positive meaning. Therefore, the company can identify and classify the consumer data based on the marketing objectives (Dursun & Caber, 2016). Good data quality has the characteristics of accuracy, timeliness, completeness, and consistency (Chopoorian et al., 2015). The use of reliable and good data is associated with the company acceleration and accuracy in decision-making (Erevelles et al., 2016). In addition, previous studies revealed that the channels of communication influence on the CRM performance (Sarmaniotis, Assimakopoulos, & Papaioannou, 2013). The company's approach to exploit new customers is not the same as the customer's proven loyalty. Therefore, the consumer database is not stored or used exclusively by marketing division. The diffusion of data to other divisions, such as the promotion division, front liner, and field workers, is considered very important to, for instance, recruit new consumers and maintain the loyal consumers by arranging the right program framework and making personal relationships between the companies and consumers. Accordingly, the following hypothesis is proposed:

H4: Consumer data quality significantly influences the performance of CRM

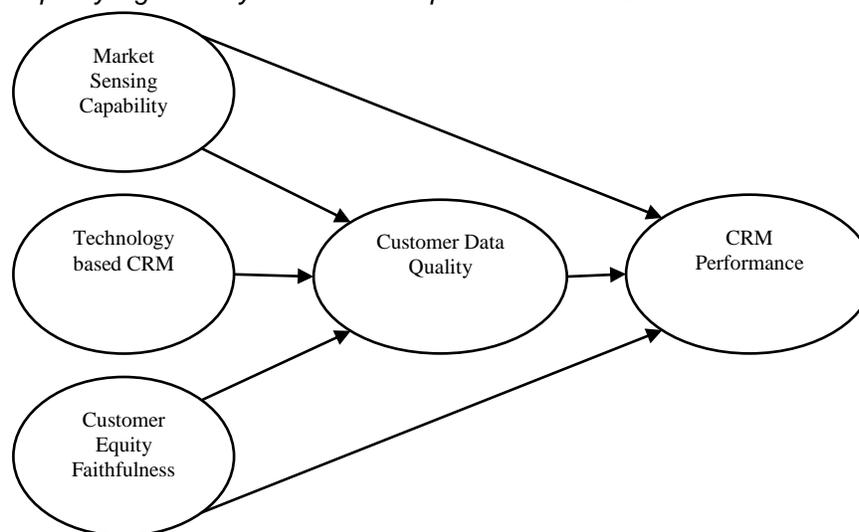


Figure 1. Research Model

3. METHODOLOGY

Sampling Method

Data collecting was conducted through field surveys in travel agencies operating in Bangka Belitung Province, Indonesia. The questionnaire was used to collect statistical data with a range scale of 1 (strongly disagree) to 10 (strongly agree). Total respondent of 158 travel agencies was involved, but only 133 samples were proceeded for the remaining 25 respondents did not give ample answers according to the questionnaire instructions, i.e. 10 questionnaires were considered invalid.

Next, the data was analysed by using path diagram and structural equation modeling to test the proposed hypotheses. The first stage was by entering each hypothesis into the path diagram to analyse the relational pattern between the dependent and independent variables. Later, the data was examined by

using AMOS Software Version 16 to test the quality of the data through the RMSEA, GFI, C.R. etc., which were used to analyse the research model.

Variable Measurement

The variable of technology adoption is defined as a respondent acceptance toward technology products in accordance with the demographic and psychological characteristics of travel consumers to support the increased mutualistic relationship between the company and consumers. This variable is adopted and shortened from Doolin (2012), Buhalis (1998) comprising the utilization, sophistication, and reliability of technologies.

Market sensing is defined as collecting and sensing the consumers information and knowledge by the respondents to identify the travel market demand and respond to the consumers. Market sensing items in this study are adopted from Piercy (1991), Piercy (2012), Foley and Fahy (2004) comprising the company responsiveness to the consumer complaints, the exploitation of a particular moment of attractive tourism events, and the identification of market demand.

Consumer equity faithfulness is operationally defined as consumer value achieved through knowledge management and sharing of information by the respondent to consumers to create mutually beneficial relationships. Its items in this study are adopted from a framework developed by Johnson (2010), which includes the information management of market conditions, the development of mutually beneficial relationships, and the mutualistic information sharing.

The variable of customer data quality is operationally defined as the actual or potential influence given by the data on the formation and maintenance of communication between the company and actual or potential consumers. The items of consumer data quality in this study are adopted from Shah and Murtaza (2005), Peltier et al. (2013), covering the utilization of the latest data, the revision of the data, and the accuracy of the data.

Consumer relationship marketing (CRM) enhances the corporate profits triggered by quality service improvement and consumer satisfaction through the optimization of business processes and transactions (Beck, 2001).

Parida and Baksi (2013) stated that CRM performance can be measured by consumer perception index, service quality, customer satisfaction and behaviour toward company's service. Coltman et al., (2003) indicated the role of human, technical and business capabilities as the determinants for the successful of CRM performance. Kim and Kim (2009), O'Reilly and Dunne (2004) measured company's CRM performance by acquisition, satisfaction and retention of customers. CRM performance items in this study are adopted from Kim and Kim (2009), which includes the increasing of the number of consumers, actual sales improvement, and the increasing of product demand.

4. FINDINGS

Validity and Reliability Testing

Interpretation and modification of the research model based on the consideration to the residual amount that is residual restrictions value that greater than or equal to 1.96 and 5% level of significant (Hair, 2010; Hair Jr., 2005).

The result of the validity and reliability analysis as seen by comparing the corrected item-total correlation with the value of r table using α level of 0.05 is 0.176. Since the value of corrected item-total correlation of the items is greater than r table, the overall indicator in this study is valid (Ghozali, 2005). The result of reliability test for 15 indicators generates the value of *cronbach alpha* as 0.921. Thus, it can be concluded that the overall items are reliable.

Table 1. Validity and Reliability Testing

Constructs	Indicator	Corrected Correlation	Item-Total Cronbach's Alpha
Technology Adoption	TA 1	0.652	0.843
	TA 2	0.590	
	TA 3	0.676	
Market Sensing	MS 1	0.630	0.796
	MS 2	0.426	
	MS 3	0.663	
Customer Equity Faithfulness	CEF 1	0.719	0.838
	CEF 2	0.607	
	CEF 3	0.725	
Customer Data Quality	CDQ 1	0.688	0.794
	CDQ 2	0.591	
	CDQ 3	0.707	
CRM Performance	CRM 1	0.537	0.789
	CRM 2	0.688	
	CRM 3	0.609	
Total Alpha			0.921

Goodness of Fit Testing

Measurement of the model (see Fig. 1) can be tested by observing the goodness of fit testing that can be seen from the parameter of *Chi-Square* of 151.620 and probability value of 0.000, which is below the significance level of 0.05. The parameter value of GFI (0.794), TLI (0.91), CFI (0.931), and RMSEA (0.085), even though several indicators have marginal results, are statistically acceptable.

Table 2. Results of Feasibility Model

Goodness of Fit Index	Cut of Value	Results	Evaluation Model
Chi Square	133.476	151.620	marginal
Probability	≥ 0.05	0.000	marginal
GFI	≥ 0.90	0.861	marginal
TLI	≥ 0.90	0.911	good
CFI	≥ 0.90	0.931	good
RSMEA	≤ 0.08	0.085	marginal

Hypothesis Testing

The Influence of Technology-Based CRM on the Quality of Consumer Data

H1: Statistical test of hypothesis 1 shows that the value of C.R. for the relationship between the two constructs is 2,059, with a significance level of 0.039. The result of this test tells that the variable of technology adoption has a positive effect on the quality of consumer data. Thus, it can be said that the first hypothesis is accepted.

The Influence of Market Sensing on the Quality of Consumer Data and CRM Performance

H2a. Statistical test reveals that the value of C.R. is 0.220 with error probability of 0.826, above the significance level of 0.05. The result of this test shows that market sensing variable insignificantly influences the quality of consumer data. Thus, it can be stated that the hypothesis is not accepted.

H2b. The statistical test of the hypothesis reveals the value of C.R. is -0.197 with p -value of 0.843, above the significance level of 0.05. This result indicates that the market sensing variable has no significant effect on the performance of CRM. Therefore, the hypothesis about the influence of market sensing on CRM performance is not accepted.

The Influence of Consumer Equity Faithfulness on the Quality of Consumer Data and CRM Performance

H3a. Consumer equity faithfulness significantly influences on the quality of consumer data. The result of statistical testing of the hypothesis shows that the value of C.R. is 5.741, and the p -value is 0000. Thus, the hypothesis is accepted. The better the consumer equity faithfulness, the better the quality of consumer data.

H3b. The empirical testing shows that the C.R. value is 2.129 with p -value of 0.033. Accordingly, the hypothesis about influence of consumer equity faithfulness on CRM performance is accepted. The better the consumer equity faithfulness, the better the CRM performance.

The Influence of the Quality of Consumer Data on the CRM Performance

H4. The testing result shows that the C.R. value is 2.168 with probability value of 0.030. Thus, hypothesis 4 is accepted. The consumer data quality significantly affects the performance of CRM. The better the quality of consumer data, the better the performance of CRM.

Table 3. Hypothesis Testing

No.	Hypothesis	CR value and p
H1	Technology-Based CRM significantly influences to the Customer Data Quality	CR = 2.059 $p = 0.039$
H2a	Market Sensing Capability significantly influences to the Quality of Customer Data	CR = -.0220 $p = 0.843$
H2b	Market Sensing significantly influences to the Performance of CRM	CR = .197 $p = 0.843$
H3a	Faithfulness Consumer Equity significantly influences to the Quality of Customer Data	CR = 5.741 $p = 0.000$
H3b	Faithfulness Consumer Equity significantly influences to the Performance of CRM	CR = 2.129 $p = 0.033$
H4	The Customer Data Quality significantly influences to the Performance of CRM	CR = 2.168 $p = 0.030$

5. DISCUSSION AND IMPLICATION

The empirical testing revealed that sensing market variable did not significantly affect on the quality of consumer data and CRM performance. Market sensing is basically a structured information and knowledge regarding the market conditions, whereby travel agencies are emphasized to always anticipate and have the sensitivity toward market and external environment changes. However, the structure, characteristics, and elasticity of the tourism market are different from the elasticity of the market of normal goods, such as consumer goods. Consumer demand for travel market can change at certain times due to some external factors that control it, such as regulation changes, cost, ease of infrastructure, access to adequate information, and security of local, regional, or national situation. Tourism market can change at any time radically, which will soon form a new market structure, product offerings from competitors, and new consumer orientation. A little change in the external environment will radically change the travel market demand.

Because of the rapid changes in the tourism market due to changes in the external environment, various market sensing indicators examined in this study, which focuses on consumers such as the company responsiveness to the consumers complaint, the identification of market demand, and the use of certain moments such as holidays, local festivals, attractions, or other exclusive events that offer to the tourists, do not affect the quality of the data and the performance of CRM. Although the company is quite responsive, and an interesting local festival is being held, for instance, but the regulations are tightened, and the local or national security is being threatened, this condition could not help the company utilize any result of market sensing and the consumer data quality. Moreover, travel consumers normally will not necessarily visit the same places or sites, except for specific reasons. They will be more interested in exploring other tourist.

Market sensing capability, which focus on the company's action toward individual consumer information, is a general framework that can not be used fully as a reference to develop travel business. Travel agencies should focus more on the internal performance, the use of technology to facilitate consumer relations, and the creation of new attractive tourist destinations outside its main market. On the other hand, the company is still possible to observe and analyze the important trends and issues in the market and external conditions.

To overcome the company disadvantages of market sensing to the consumers, as evidenced by the insignificant result of the variable on the quality of data and CRM performance, the company can anticipate through consumer maintenance faithfulness programs . The program focuses on the offering of travel products or services package that refer to the consumers motives of travel for pleasure seeking. From this context, the company can maintain the loyalty of its consumers to travel continuously by offering gifts, cash reward, discount price, free tours, additional facilities at tourist spots, or any other program that is focused on taking care of the consumers loyalty to use the company's products and services.

From the consumers point of view, the company can socialize and educate the consumers to use the consumer data. User participation in the development of the system is considered a critical factor in the success of information systems and technology adoption. The successful adoption of technology-based CRM in building sustainable relationships between the company and consumers will be determined by the participation of the consumer in the utilization of the available data.

6. CONCLUSION

This study focuses on travel agencies and analyzes the variable of technology adoption to improve the quality of consumer data as an antecedent of CRM performance. To analyze the effectiveness of the quality of consumer data, the study examines the input factors, i.e. market sensing and consumer relationship in the form of consumers equity faithfulness. The empirical testing revealed an acceptance of hypotheses about the relationship between the variable of technology adoption and consumer equity faithfulness toward the quality of consumer data (H1 and H3a) and the performance of CRM (H3b), as well as the quality of data on the performance of CRM (H4). However, the study rejected two proposed hypotheses, i.e. the effect of market sensing on both the quality of consumer data (H2a) and CRM performance (H2b). In general, this study revealed the ability of consumer database as a mediating variable to fulfil the theoretical gaps between the technology-based CRM and CRM performance.

Competitive tourism market conditions occur in not only the competitive level of travel products, but also consumers services. The companies will obtain a good data quality if they treat his consumers well. Significant result of the consumer data quality showed that consumers want not only to buy the product, but also to contribute to the development of the company through beneficial communication. Technology-based consumer communication strategy must be planned and applied systematically and comprehensively, so that the implementation of this strategy can cover the consumers on overall lines of the company.

REFERENCES:

- Ahearne, M., Jelinek, R., & Rapp, A. (2005). Moving Beyond the Direct Effect of SFA Adoption on Salesperson Performance: Training and Support as Key Moderating Factors. *Industrial Marketing Management*, 379–388.(4), 379–388.
- Auh, S., Bell, S. J., McLeod, C. S., & Shih, E. (2007). Co-production and customer loyalty in financial services. *Journal of retailing*, 83(3), 359-370.
- Avlonitis, G. J., & Panagopoulos, N. G. (2005). Antecedents and consequences of CRM technology acceptance in the sales force. *Industrial Marketing Management*, 34, 355 – 368.
- Beck, B. (2001). Data Warehousing Horizons CRM: Not Just Operational and Collaborative. *DM REVIEW*, 11, 62-65.
- Brucks, M. (1985). The effects of product class knowledge on information search behavior. *Journal of Consumer Research*, 1-16.
- Buhalis, D. (1998). Strategic use of information technologies in the tourism industry. *Tourism management*, 19(5), 409-421.
- Chen, C. M., Delmas, M. A., & Lieberman, M. B. (2015). Production frontier methodologies and efficiency as a performance measure in strategic management research. *Strategic management journal*, 36(1), 19-36.
- Chen, C.-C., Huang, T.-C., Park, J. J., & Yen, N. Y. (2015). Real-time smartphone sensing and recommendations towards context-awareness shopping. *Multimedia Systems*, 21(1), 61-72.
- Cheung, F. Y. M., & To, W. M. (2015). Do task-and relation-oriented customers co-create a better quality of service? An empirical study of customer-dominant logic. *Management Decision*, 53(1), 179-197.
- Chopoorian, J. A., Khalil, O. E., & Ahmed, M. (2015). Data Quality and Database Marketing. Paper presented at the Proceedings of the 1998 Academy of Marketing Science (AMS) Annual Conference.
- Chung, K. Y., Oh, S. Y., Kim, S. S., & Han, S. Y. (2004). Three representative market segmentation methodologies for hotel guest room customers. *Tourism Management*, 25(4), 429-441.
- Coltman, T., Devinney, T. M., & Midgley, D. (2003). Strategic Drivers and Organizational Impediments to E-Business Performance: A Latent Class Assessment. Available at SSRN 392562.
- Coolil, B., Keiningham, T. L., Aksoy, L., & Hsu, M. (2007). A longitudinal analysis of customer satisfaction and share of wallet: Investigating the moderating effect of customer characteristics. *Journal of Marketing*, 71(1), 67-83.
- De Almeida, M. F. L., & De Melo, M. A. C. (2015). Technology, Innovation And Management For Sustainable Growth: A Flexible Toolkit For Strategic Technology Management. *International Association for Management of Technology IAMOT 2015 Conference Proceedings*, 2553-2663.
- Doolin, B., Burgess, L., & Cooper, J. (2002). Evaluating the use of the Web for tourism marketing: a case study from New Zealand. *Tourism management*, 23(5), 557-561.
- Dursun, A., & Caber, M. (2016). Using data mining techniques for profiling profitable hotel customers: An application of RFM analysis. *Tourism Management Perspectives*, 18, 153-160.

- Einwiller, S. A., Fedorikhin, A., Johnson, A. R., & Kamins, M. A. (2006). Enough is enough! When identification no longer prevents negative corporate associations. *Journal of the academy of marketing science*, 34(2), 185-194.
- Erevelles, S., Fukawa, N., & Swayne, L. (2016). Big Data consumer analytics and the transformation of marketing. *Journal of business research*, 69(2), 897-904.
- Foley, A., & Fahy, J. (2004). Towards a further understanding of the development of market orientation in the firm: a conceptual framework based on the market-sensing capability. *Journal of Strategic Marketing*, 12(4), 219-230.
- Fong, S.-F., Lo, M.-C., & Ramayah, T. (2014). New product development and performance in the banking industry. *Asia-Pacific Journal of Management Research and Innovation*, 10(4), 305-321.
- Frochot, I., & Morrison, A. M. (2000). Benefit segmentation: A review of its applications to travel and tourism research. *Journal of Travel & Tourism Marketing*, 9(4), 21-45.
- Ghozali, I. (2005). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gohmann, S. F., Jian Guan, Barker, R. M., & Faulds, D. J. (2005). Perceptions of Sales Force Automation: Differences Between Sales Force and Management. *Industrial Marketing Management*, 34(4), 337-343.
- Goodhue, D. L., Wixom, B. H., & Watson, H. J. (2002). Realizing business benefits through CRM: hitting the right target in the right way. *MIS Quarterly Executive*, 1(2), 79-94.
- Greenberg, P. (2004). *CRM at the Speed of Light*: McGraw-Hill/Osborne.
- Greenberg, P. (2001). *CRM at the speed of light: Capturing and keeping customers in Internet real time*: McGraw-Hill Professional.
- Hair Jr, J. F. (2005). Black, WC/Babin, BJ/Anderson, RE & Tatham, RL (2006): *Multivariate Data Analysis*. Auflage, Upper Saddle River.
- Hair, J. F. (2010). *Multivariate data analysis*. Pearson College Division.
- Haug, A., & Stentoft Arlbjørn, J. (2011). Barriers to master data quality. *Journal of Enterprise Information Management*, 24(3), 288-303.
- Jain, S. C. (2005). CRM shifts the paradigm. *Journal of Strategic Marketing*, 13(4), 275-291.
- Johnson, D. S., Clark, B. H., & Barczak, G. (2012). Customer relationship management processes: How faithful are business-to-business firms to customer profitability?. *Industrial Marketing Management*, 41(7), 1094-1105.
- Johnson, D., Clark, B., & Barczak, G. (2010). Customer Relationship Management Processes: Understanding Firm Commitment To Customer Equity. 2010 AMA Educators' Proceedings Enhancing Knowledge Development in Marketing, 108.
- Kim, H.-S., & Kim, Y.-G. (2009). A CRM performance measurement framework: Its development process and application. *Industrial Marketing Management*, 38(4), 477-489.
- Krasnikov, A., Jayachandran, S., & Kumar, V. (2009). The impact of customer relationship management implementation on cost and profit efficiencies: evidence from the US commercial banking industry. *Journal of Marketing*, 73 (6), 61-79.

- Kumar, V., Sharma, A., Shah, R., & Rajan, B. (2013). Establishing profitable customer loyalty for multinational companies in the emerging economies: a conceptual framework. *Journal of International Marketing*, 21(1), 57-80.
- Laudon, K. C., & Laudon, J. P. (2011). *Essentials of management information systems*: Pearson Upper Saddle River.
- Levitt, T. (1960). Marketing myopia. *Harvard business review*, 38(4), 24-47.
- Love, P., Edwards, D. J., Standing, C., & Irani, Z. (2009). Beyond the Red Queen syndrome: CRM technology and building material suppliers. *Engineering, Construction and Architectural Management*, 16(5), 459-474.
- Lukkari, P. (2011). Merger: institutional interplay with customer relationship management. *Management Research Review*, 34 (1), 17-33.
- Mason, K. (2012). Market sensing and situated dialogic action research (with a video camera). *Management Learning*, 43(4), 405-425.
- Mattsson, L. G., Corsaro, D., & Ramos, C. (2015). Sense-making in business markets—the interplay between cognition, action and outcomes. *Industrial Marketing Management*.
- Mohseni, F., Danesh, S. Y. S., & Chirani, E. (2014). The study of knowledge management's effect on CRM success, considering the intermediary effect of organizational factors. *International Journal of Economy, Management and Social Sciences*, 3(8), 396-399.
- Mokhtar, S. S. M., & Yusof, R. Z. (2010). The influence of top management commitment, process quality management and quality design on new product performance: A case of Malaysian manufacturers. *Total Quality Management*, 21(3), 291-300.
- Nasiripour, A. A., Soloukdar, A., & Moinifard, S. (2014). Effects Related To Information Processing and the Use of Technology on Customer Relationship Management. *Research Academy of Social Sciences*, 2(1), 38-43.
- Nikhashemi, S. R., Paim, L., Haque, A., Khatibi, A., & Tarofder, A. K. (2013). Internet Technology, Crm and Customer Loyalty: Customer Retention and Satisfaction Perspective. *Middle-East Journal of Scientific Research*, 14(1), 79-92.
- Olavarrieta, S., & Friedmann, R. (2008). Market orientation, knowledge-related resources and firm performance. *Journal of business research*, 61(6), 623-630.
- O'Reilly, P., & Dunne, S. (2004). Measuring CRM performance: an exploratory case. *ECIS 2004 Proceedings*, 122.
- Parida, B. B., & Baksi, A. K. (2013). CRM Performance: Indexing Approach. *SCMS Journal of Indian Management*, 10(2).
- Payne, A., & Frow, P. (2006). Customer relationship management: from strategy to implementation. *Journal of Marketing Management*, 22(1), 135-168.
- Peltier, J. W., Zahay, D., & Lehmann, D. R. (2013). Organizational learning and CRM success: a model for linking organizational practices, customer data quality, and performance. *Journal of Interactive Marketing*, 27(1), 1-13.
- Pernu, E., Mainela, T., & Puhakka, V. (2015). Creating shared views of customers: Individuals as sense-makers in multinational companies. *Industrial Marketing Management*.

- Piercy, N. (1991). *Market-led strategic change*: Thorsons London.
- Piercy, N. F. (2012). *Market-Led Strategic Change*: Taylor & Francis.
- Ramsey, S. (2003). Introduction: strategy first, then CRM. *The Ultimate CRM Handbook*, McGraw-Hill, New York, NY, 13-17.
- Rigby, D. K., Reichheld, F., & Dawson, C. (2003). Winning customer loyalty is the key to a winning CRM strategy. *Ivey Business Journal*, 2.
- Roberts, M. L., Liu, R. R., & Hazard, K. (2005). Strategy, technology and organisational alignment: Key components of CRM success. *The Journal of Database Marketing & Customer Strategy Management*, 12(4), 315-326.
- Sarmaniotis, C., Assimakopoulos, C., & Papaioannou, E. (2013). Successful implementation of CRM in luxury hotels: determinants and measurements. *EuroMed Journal of Business*, 8(2), 134-153.
- Shah, D., Rust, R. T., Parasuraman, A., Staelin, R., & Day, G. S. (2006). The path to customer centricity. *Journal of service research*, 9(2), 113-124.
- Shah, J. R., & Murtaza, M. B. (2005). Effective customer relationship management through web services. *Journal of Computer Information Systems*, 46(1), 98-109.
- Soltani, Z., & Navimipour, N. J. (2016). Customer relationship management mechanisms: A systematic review of the state of the art literature and recommendations for future research. *Computers in Human Behavior*, 61, 667-688.
- Tanner, J. F., Jr, & Shipp, S. (2005). Sales Technology Within the Salesperson's Relationships: A Research Agenda. *Industrial Marketing Management*, 34(4), 305-312.
- Yusuf, E. (2012). Analysis of market-based approach on the customer value and customer satisfaction and its implication on customer loyalty of organic products in Indonesia. *Procedia-Social and Behavioral Sciences*, 40, 86-93.