

2020

## The Relationship Between Customer Relationship Management, Employee Retention, and Revenue

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# Walden University

College of Management and Technology

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Bui Thanh Van

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Walden University  
2020

Abstract

The Relationship Between Customer Relationship Management, Employee Retention,  
and Revenue

by

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MS, University of Applied Sciences and Arts Northwestern, 2009

BS, University of Tasmania, 2000

Doctoral Study Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Business Administration

Walden University

Nov 2020

## Abstract

Downsizing campaigns and employee layoffs can result in poor customer service leading to service revenue losses. Understanding lost service revenue predictors is critical for leaders and managers to maintain and increase organizational growth and financial performance. Grounded in the service-profit chain theory, the purpose of this quantitative correlational study was to examine the relationship between customer relationship management (CRM), employee retention, and service revenue. Data were analyzed for 80 leaders and managers working in Vietnam's industrial service field. The results of the multiple regression analysis indicated the full model, containing the 2 predictor variables (CRM and employee retention), was able to predict service revenue significantly,  $F(2, 72) = 7.608, p = .001, R^2 = .174$ . Only employee retention made a statistically significant contribution to the model ( $\beta = .416, p < .001$ ). A key recommendation is for leaders and managers of industrial firms to prudently implement service diversification and human resource management strategies to maintain employee retention for increasing growth and financial performance to improve CRM. The implications for social change include the potential to raise service levels for customers, empower employees, and increase the tax base to improve the quality of life for all stakeholders in the community.

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## Table of Contents

List of Tables .....	v
List of Figures.....	vi
Section 1: Foundation of the Study .....	1
Background of the Problem.....	1
Problem Statement .....	2
Purpose Statement.....	3
Nature of the Study .....	3
Research Question and Hypotheses .....	5
Theoretical Framework.....	5
Operational Definitions .....	7
Assumptions, Limitations, and Delimitations.....	8
Significance of the Study .....	9
Contributions to Business Practice.....	9
Implications for Social Change .....	10
A Review of the Professional and Academic Literature.....	11
The Service-Profit Chain Theory.....	14
Customer Relationship Management.....	21
Customer Lifetime Value.....	28
Customer Satisfaction .....	29
Customer Retention .....	30
Service Quality.....	32

Customer – Employee Interaction .....	35
Employee Retention .....	37
Employee Satisfaction .....	42
Revenue Performance .....	43
Measurement of Research Variables .....	47
Transition .....	50
Section 2: The Project .....	51
Purpose Statement.....	51
Role of the Researcher .....	52
Participants.....	53
Eligibility Criteria .....	53
Strategies for Accessing and Establishing Relationships With Participants.....	54
Alignment of Participants’ Characteristics and Research Question.....	54
Research Method and Design .....	55
Research Method.....	55
Research Design .....	57
Population and Sampling .....	58
Population Characteristics and Research Question Alignment.....	59
Ethical Research .....	62
Informed Consent Process and Incentives for Participating.....	63
Ethical Protection of Participants .....	63
Confidentiality, Data Storage, and Agreement Documents.....	65

Data Collection Instruments.....	65
Customer Relationship Management.....	66
Employee Retention .....	66
Service Revenue .....	67
Data Collection Technique .....	68
Advantages and Disadvantages of the Data Collection Technique .....	68
Data Collection Process.....	69
Cronbach’s Alpha Tests .....	70
Data Analysis.....	71
Cleaning, Screening, and Addressing Missing Data.....	73
Assumptions.....	74
Inferential Results Interpretation .....	77
Study Validity.....	78
Threats to Statistical Validity and Mitigation Strategies .....	79
Transition and Summary .....	83
Section 3: Application to Professional Practice and Implications for Change .....	85
Introduction.....	85
Presentation of the Findings .....	85
Reliability .....	86
Tests of Assumptions .....	87
Descriptive Statistics .....	90
Inferential Results .....	92

Applications to Professional Practice .....	99
Implications for Social Change .....	102
Recommendations for Action .....	103
Recommendations for Further Research .....	105
Reflections.....	106
Conclusion.....	107
References.....	108
Appendix A: Survey Questions .....	152
Appendix B: Permission to Use The Survey Instrument .....	166

## List of Tables

Table 1. Summary Statistics for Research Articles Used in This Study .....	12
Table 2. Correlation Coefficients Among Study Predictor Variables .....	87
Table 3. Coefficients VIF .....	88
Table 4. Means and Standard Deviations for Study Variables .....	91
Table 5. Descriptive Statistics for Demographic Variables (N = 75).....	91
Table 6. Regression Analysis Summary <sup>b</sup> .....	93
Table 7. Regression Analysis Summary for Predictor Variables <sup>a</sup> .....	93

## List of Figures

Figure 1. The SPC model (Kim, 2014). .....	16
Figure 2. G*Power graph. ....	62
Figure 3. Boxplot of CRM, employee retention, and service revenue.....	88
Figure 4. Normal probability plot (P-P) of the regression standardized residuals. ....	89
Figure 5. Scatterplot of the standardized residuals. ....	89
Figure 6. Scatterplot matrix between the variables. ....	90

## Section 1: Foundation of the Study

In an economic downturn, most service companies retrenched by cutting operating costs and laying off employees to reduce expenses (Mann & Byun, 2017). In contrast, some firms respond to economic downturns by increasing investments and expanding sales and marketing budgets to gain market share. Service firms in an economic downturn faced with this dilemma can cut costs and jobs or expand and seek new growth opportunities to survive over the recession.

### **Background of the Problem**

During recessions, customers change their buying behavior (Notta & Vlachveib, 2015). Company leaders need to change customer relationship management (CRM) strategies to meet the customers' changing preferences (Notta & Vlachveib, 2015). Also, firm leaders faced with business difficulties may choose to keep the same prices for higher quality services or reduce the prices (e.g., cost-cutting and employee downsizing) for the same quality services. Both choices lead to lower revenue and profitability. Cost reduction is just a temporary approach to secure profit in the short-run (Wallnöfer & Hacklin, 2013). Focusing on maintaining the customer relationship and retaining talented employees is critical to developing new potential business opportunities and generating business revenue long term. The service industry is one of the fastest-growing sectors in developing countries with high competition in recent years (Iman & Norizan, 2019).

Five facets contributing to long-term service revenue are (a) legal compliance with business, (b) maintaining customer relationships, (c) retention to motivate employee loyalty, (d) propagation of good policies to customers and employees, and (e) enhancing

reputation (Karim, Suh, & Tang, 2016). Four strategic choices of the business strategy process are (a) determinants of the attractive market, (b) unique value, (c) resources and capabilities, and (d) sustainability of the competitive advantages (Dyer, Godfrey, Jensen, & Bryce, 2016). Business leaders of service firms can increase marketing costs for acquiring new customer relationships to sell new services better than the cutting-off cost to retrench the business in the short term (Fleaca, Fleaca, & Maiduc, 2016). CRM, as external management activities, and employee retention, as internal management activities, are two key variables to create more service revenue to help firms survive over time. Employees in high-contact service systems in CRM are vital to providing high-quality service that, in turn, drives customer satisfaction and retention (Iman & Norizan, 2019). Thus, a research study to examine the interaction or relationship between CRM, employee retention, and service revenue must have proper responses to the business situation.

### **Problem Statement**

Poorly conceived responses by service company executives to cope with the recession of 2008–2016 by cutting operating costs, including the cost for CRM and laying off employees, harmed their employee commitment, customer satisfaction, and service revenue performance (Carriger, 2017; Habel & Klarmann, 2015; Mann & Byun, 2017; Notta & Vlachveib, 2015; Schulz & Johann, 2018). Employee layoffs increased the unemployment rate to 24.3% (Federico, 2015) and reduced GDP consumption by 15.2% (Lepage-Saucier, 2016) and economic performance by 43% (Drzensky & Heinz, 2016), leading to 13.2%–17.6% losses in service revenue (Shi, Sridhar, Grewal, & Lilien,

2017). The general business problem is that cost reduction campaigns and employee layoffs result in poor customer service, leading to decreased customer satisfaction, employee retention, and service revenue. The specific business problem is that some business leaders do not understand the relationship between CRM, employee retention, and service revenue.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. The independent variables are CRM and employee retention. The dependent variable is service revenue measured by gross service revenues of firms in the targeted population. The targeted population contains 75 managers and business leaders of service firms from the industrial service field in Vietnam. Increased earnings of service company executives who retain employees maximize shareholder value, increase the tax base, and provide greater employment and stakeholder engagement to create a positive social impact (Dyer et al., 2016). Business leaders may apply the findings in this study to improve their revenue performance, thereby increasing employment and the tax base for local government. Business leaders may also benefit from improved customer relationships and lower training costs that could increase profitability (Kawai, 2015; Lee, 2018). Increased revenue means more jobs and income for members of the local community.

### **Nature of the Study**

I chose a quantitative methodology to examine the relationship between CRM, employee retention, and service revenue. A quantitative researcher uses numerical and

statistical data to test, predict, and explain relationships among variables in a sample from which statistical inferences are generalizable to the larger population to answer a research question (Park & Park, 2016; Saunders, Lewis, & Thornhill, 2015; Singh, 2015).

Researchers use the results of a standard statistical analysis to decide whether to accept or reject a null hypothesis (Bettany-Saltikov & Whittaker, 2013). In a quantitative study, the researchers quantify the problem by transforming numerical data into constructs and looking for relationships between those constructs to formulate predictive models that can be generalizable to the populations the researchers drew the samples from (Violante & Vezzetti, 2017). The quantitative method was appropriate for this study because the purpose was to numerically examine the relationship between CRM, employee retention, and service revenue. A mixed-methods study includes the attributes of both quantitative and qualitative methods (Turner, Cardinal, & Burton, 2016). The qualitative method is appropriate when the researchers intend to explore information on individuals' perspectives, the interaction of business leaders with their field, how people make sense, and the experiences of individuals (Nassaji, 2015; Valdez, McGuire, & Rivera, 2017). Therefore, the quantitative and qualitative portions of a mixed-method approach are not appropriate for this study.

I chose the correlational design for this study. A correlation researcher examines the relationship between or among two or more variables (Bettany-Saltikov & Whittaker, 2013; Park & Park, 2016). The correlational design is appropriate for this study because the key objective for this study was to predict the relationship between a set of predictor variables (e.g., CRM and employee retention) and a dependent variable (e.g., service

revenue). I may also use regression analysis to predict the variances of these coefficients (Krotov, 2016). Other designs, such as experimental and quasi-experimental designs, are appropriate when the researcher seeks to evaluate a degree of cause and effect (Park & Park, 2016; Watson, 2015). Because the main objective of this study was to identify a predictive model, the experimental and quasi-experimental designs were not appropriate.

### **Research Question and Hypotheses**

The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. Therefore, the central research question for this quantitative correlational study is:

RQ: What is the relationship between CRM, employee retention, and service revenue?

$H_0$ : There is no statistically significant relationship between CRM, employee retention, and service revenue.

$H_a$ : There is a statistically significant relationship between CRM, employee retention, and service business revenue.

### **Theoretical Framework**

Heskett, Jones, Loveman, Sasser, and Schlesinger (1994) developed the service-profit chain (SPC) theory to provide the link between employees, customer service levels, and firm performance measured by service revenue (e.g., economic value added).

According to the SPC, satisfied employees can develop high-quality service and create satisfied customers (Myrden & Kelloway, 2015). Three dimensions of employee engagement are dedication, energy, and absorption in the customer's perspective (Cain,

Tanford, & Shulga, 2018). The SPC reflects the connection between employee and customer satisfaction outcomes because improved employee satisfaction leads to greater customer satisfaction, loyalty, and profitability (Cain et al., 2018). The SPC links employee dimensions and customer service levels that can lead to enhanced revenue performance. Employee satisfaction does not relate directly to the firm's financial performance, but indirectly through the relationship between employee and customer (Cain et al., 2018).

In the service industry, researchers can use the SPC theory to explain organizational success for integrating concepts of operations management with human resources (Yee, Yeung, & Cheng, 2011). The SPC has served as a roadmap to profitability in various businesses and credited for the success of some service companies (Cain et al., 2018). Researchers can use this theory to relate a service organization's financial performance and sustainable competitiveness to the relationship with its customers and employees. Thus, the interaction between employees and customers influences the service quality from the customer's perspective. Heskett et al.'s (1994) SPC has three main constructs (a) customer relationship, (b) employee retention, and (c) service revenue (Cain et al., 2018), making it the appropriate lens to investigate the link between employees, customer service levels, and firm revenue performance. The SPC model can be used to define and measure linkages between service quality, customer retention and happiness with the service providers, and sales revenue.

## Operational Definitions

*Customer acquisition:* A process of attracting new customers or new markets (Koosha & Albadvi, 2015; Maicas & Sese, 2015).

*Customer asset management:* A process through which organizations can increase revenues by gaining more customers, retaining existing customers, and acquiring new customers (Nenonen & Storbacka, 2016)

*Customer lifetime value (CLV):* A model used to allocate the budget of service promotion for retaining traditional customers and acquiring new customers (Koosha & Albadvi, 2015). The main components of CLV are customer acquisition, retention, and profit margin (Koosha & Albadvi, 2015). CLV is the sum of the cumulative cash flow of a customer over their lifetime with the firm (Vaeztehrani, Modarres, & Aref, 2015).

*Customer relationship management (CRM):* For service companies, the focus is on two central components of customer acquisition and customer retention management (Gouthier & Schmid, 2003; Maicas & Sese, 2015; Sungwook, Xubing, Namwoon, & Srivastava, 2016). The goal of CRM is to increase the revenue of a business through long-term customer relationships (Arli, Bauer, & Palmatier, 2018; Vaeztehrani et al., 2015).

*External service quality:* The service quality to external customers, which leads to customer satisfaction (Hogreve, Iseke, Derfuss, & Eller, 2017).

*Internal service quality:* The care taken with employee selection, training, empowerment, and compensation (Dalla, Goetz, & Sahut, 2018). The internal service

quality enables employees to generate benefits to customers and enhances employee satisfaction (Hogreve et al., 2017).

*Marketing cost:* This includes (a) past, current, and future promotional costs for retaining and acquiring customers; (b) technology upgrades; (c) service improvements; (d) employee management; and (e) quality control (Kumar, 2018).

### **Assumptions, Limitations, and Delimitations**

Researchers can identify inherent flaws and potential weaknesses within a study through assumptions, limitations, and delimitations (Ensslin, Dutra, Ensslin, Chaves, & Dezem, 2015; Gorylev, Tregubova, & Kurbatov, 2014). Assumptions are concepts that researchers accept as true but are not verified (Herlihy & Turner, 2015). In this study, I assumed that participants understood and answered the survey questions ethically. The second assumption was that managers and business leaders of service firms participating in this survey would reflect the target population.

Limitations are potential restraints that researchers cannot control, but that could impact the study outcomes (Gorylev et al., 2014). The limitations may weaken the generalizability of the research. The generalizability reflects the quality of a quantitative study (Saunders & Townsend, 2016). Data collection over an extended time influences the accuracy of a study (Vares & Persinger, 2015). In this study, the first limitation was that the data collection from service companies in Vietnam might not be generalizable to larger businesses or businesses in other geographies. The second limitation was the experience and perceptions of managers and leaders who answered the survey questions

because leadership style and culture can vary across managers and leaders and influence their responses.

Delimitations are components that researchers use to define the study boundaries (Florin, 2014). Targeted participants were managers and leaders of service firms from the industrial service field in Vietnam. Thus, the first delimitation was a geographical boundary in Vietnam that limited the potential sample size. The second delimitation was that the data collection occurred through an email-based questionnaire. The last delimitation was that the research survey was in English, a language predominant in the targeted population for this study.

### **Significance of the Study**

Business leaders may use the study findings to enhance communication with customers and employees to generate higher customer satisfaction levels and greater profitability. Improved customer relationship reflects the improved organizational capability of building a viable competitive advantage to enhance business growth (Adewole, 2018). Employee layoffs would not help profitability either in the short term or the long term (Carriger, 2016).

### **Contributions to Business Practice**

The examination of the relationship between customer relationship management, employee retention, and service revenue may lead to significant contributions to improved business practices and firm profitability. In this study, I attempted to demonstrate that retaining competent employees can lead to higher customer satisfaction levels and increased market share. Satisfying existing customers can promote a positive

experience for customers, increase the potential for referrals, and diversify the portfolio of services so firms can acquire new customers to gain more revenue. My findings may help industrial service firm leaders in the same field to improve their current profitability and growth in the future. Business leaders could avoid making the mistake of contracting financial budgets for short-term profitability, and instead of increasing investment of competent employees and taking care of customer relationships to retain talents that are the driving factors contributing to creativity, innovation, and business performance to generate long-term shareholder value.

### **Implications for Social Change**

Business leaders may use the study findings to steer their firms through difficult economic downturns to improve financial performance, thereby increasing employment and government authorities' tax base. Many firms put profits and shareholders first without realizing that they are responsible to society and the communities they derive their profits from. Through the findings of this research, business leaders may recognize the value in retaining employees who have developed core service capabilities essential for employee engagement, organizational survival, and growth. Employee retention can enhance network construction, employment, customer satisfaction, organizational commitment, and corporate reputation during the downturn (Carriger, 2017; Hee-jung & Ji-Young, 2018; Kawai, 2015; Schulz & Johann, 2018). Increased revenue means more jobs and income for members of the local community. Improving firms' financial performance will increase employment, the tax base for local government, and the engagement of stakeholders to create a positive social impact (Dyer et al., 2016).

Employment and customer satisfaction are useful ways to create positive social impacts (Dyer et al., 2016). Business leaders may benefit from improved customer relationships, training costs saving for well-trained and skilled employees to acquire new customers.

### **A Review of the Professional and Academic Literature**

In the literature review, I provide insights of scholars' studies on the impact of CRM and employee retention on service revenue. My search included 294 references, of which 99% were from peer-reviewed sources, and 87% were published within 5 years of my expected graduation. The total number of references in the literature review is 127, of which 99% are from peer-reviewed sources and 88% were published within 5 years of my expected graduation. References include dissertations, journal articles, government websites, and books.

This literature review covers a critical analysis and synthesis of literature related to the theoretical framework of the SPC model for the study, the background of the study, independent and dependent variables (e.g., CRM, employee retention, and service revenue), and measurements of the research variables (e.g., ratio and categorical level variables). Most of the literature in the review are peer-reviewed articles, seminal papers, scholarly journals, and books. I summarize the statistic sources used for citation in this study in Table 1.

Table 1

*Summary Statistics for Research Articles Used in This Study*

	<i>Frequency</i>	<i>Percentage</i>
Total references used are 5 years old or less	257	87%
Total references used are peer-reviewed	290	99%
References used in the literature review	127	43%
Total references	294	100%

*Note.* Article age refers to the number and percentage of articles that are less than 5 years old at the expected CAO approval date. I verified the peer review for each article using Ulrich's Periodicals Directory.

For this study, I used the Walden University Library, Business Source Complete, ScienceDirect, ABI, ProQuest, and EBSCOhost databases. I also used other Internet sources to enhance knowledge and collect documents, journals, and articles supplementing the review. I searched key terms such as *service-profit chain theory/model*, *customer relationship management*, *measurements of customer relationship management*, *customer satisfaction*, *customer retention*, *customer acquisition*, *employee satisfaction*, *employee retention*, *employee retention measurements*, *employee lay-off*, *employee turnover*, *downsizing*, *customer-employee interaction*, and *service revenue*. I commenced the literature review with the SPC theory and a critical and synthesized discussion of CRM. In the next parts, I describe discussion with a synthesis of employee retention and service revenue.

The purpose of this quantitative study was to examine the relationship between CRM, employee retention, and service revenue. If business leaders better understand the

relationship between CRM, employee retention, and service revenue, they could avoid cutting financial budgets and jobs for short-term survival (Carriger, 2016; Carriger, 2017; Mann & Byun, 2017) and instead could foster competent employees and develop caring relationships with customers (Notta & Vlachveib, 2015). Increasing costs for innovation of CRM and human resource management to retain employees is a way to capture more revenue and lower expenses through process innovation (Fleaca et al., 2016). Gupta and Lehmann (2003) showed a dramatic increase of 22% to 37% in customer lifetime value or revenue for a small increase of 5% in customer retention. Poor customer care can result in negative behavior of customer satisfaction and loyalty (Paul & Sahadev, 2018). Customer satisfaction and loyalty are two of the most important factors generating long-term stable revenue (Rafiki, Hidayat, & Al Abdul Razzaq, 2019). Service companies use CRM to identify and evaluate customer satisfaction for retaining and maintaining service revenues (Jacob & Vernon, 2017; Longoni & Cagliano, 2016). Company employees are also internal customers of the firm. Many business managers and leaders have been leveraging the use of CRM in enhancing their customer satisfaction and customer retention to improve service revenue growth, bid, and quote management (Yim, Anderson, & Swaminathan, 2004). Previous academic researchers provided partial impacts of either CRM or employee retention on a firm's financial performance (e.g., revenue and profit; Waskito, 2018). However, it has been unknown whether a full relationship exists between CRM, employee retention, and service revenue. The primary research question in this study was: What is the relationship between CRM, employee retention, and service revenue? In the literature review, I explore the knowledge of why

CRM and employee retention may impact on service revenue and how the interaction of CRM and employee retention influences a firm's service revenue performance. In this study, I hypothesized that a statistically significant relationship exists between CRM, employee retention, and service revenue by using the SPC model as a lens to view this relationship.

### **The Service-Profit Chain Theory**

Heskett et al. (1994) developed the SPC theoretical model to provide the link between employee-customer interaction and firm financial performance measured by service revenue growth and profit (i.e., added economic value). I conceptualized the SPC model as shown in Figure 1, which presents a structural connection among internal service quality (e.g., employee satisfaction, employee retention, employee productivity), customers' service value, external service quality (e.g., customer satisfaction, customer loyalty), and firm performance (e. g., revenue growth and profitability; Chicu, Valverde, Ryan, & Batt, 2016; Heskett et al., 1994; Kim, 2014). The first link in SPC is that internal service quality drives employee satisfaction and retention (Briggs, Deretti, & Kato, 2018; Chicu et al., 2016; Heskett et al., 1994; Prentice, Wong, & Lam, 2017). Internal service quality includes support services and policies that enable employees to deliver services to customers (Hogreve et al., 2017; Prentice et al., 2017). According to the SPC addressed by Heskett et al. (1994), internal service quality components consist of workplace design, job design, employee selection and development, employee rewards and recognition, management support, and tools for serving customers (Iman & Norizan, 2019). From the customer's perspective, service quality significantly depends on the employee-customer

interaction (Myrden & Kelloway, 2015; Sharma, Kong, & Kingshott, 2016). The second premise of the SPC is that employee satisfaction translates to favorable customer behaviors (Briggs et al., 2018; Chicu et al., 2016; Heskett et al., 1994). Satisfied employees can develop better quality service and create customer satisfaction and reinforce the customer relationship with the service provider (Myrden & Kelloway, 2015). The firm's external service quality primarily impacts customer feedback (Hogreve et al., 2017). External service quality is subject to the employees' performance on various service dimensions (Hogreve et al., 2017; Prentice et al., 2017). The final link in the SPC model is that customer responses drive the service firm's revenue growth and profits (Chicu et al., 2016; Heskett et al., 1994; Hong, Liao, Hu, & Jiang, 2013; Kim, 2014; Prentice et al., 2017).

Heskett et al. (1994) proposed that, within the SPC model, customer satisfaction and loyalty-driven profitability and revenue growth accruing to a service company are the results of high-quality creation of service value (Chicu et al., 2016; Iman & Norizan, 2019). Satisfied, productive, and loyal employees generate this service value. According to the SPC conceptual model, internal service quality and policies within the service company lead to employee satisfaction (Kim, 2014; Prentice et al., 2017).

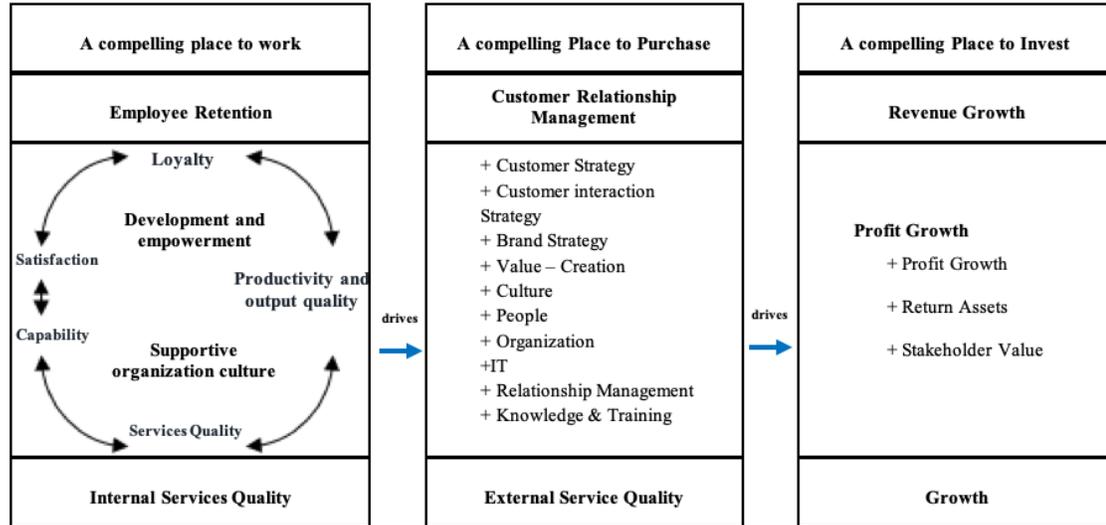


Figure 1. The SPC model (Kim, 2014).

Within SPC theory, customer satisfaction is a critical intervening variable between organizational characteristics, employee behavior, customer behavior, and firm financial performance (Conway & Briner, 2015; Heskett et al., 1994). Employee satisfaction supports high value-added services and customer satisfaction (Ling, Lin, & Wu, 2016). The connection exists between employees and outcomes of customer satisfaction because improved employee satisfaction leads to greater customer satisfaction, loyalty, and revenue or profitability (Cain et al., 2018; Chicu et al., 2016; Lee, Patterson, & Ngo, 2017). The SPC paradigm addresses the link of dimensions of internal service quality driving employee retention and customer satisfaction that result in increased employee productivity and higher revenue growth from satisfied customers (Iman & Norizan, 2019). Employee satisfaction, a mediating variable in most quantitative studies, does not relate directly to the revenue performance of a firm, but indirectly through the relationship between the employee and customers (Cain et al., 2018; Conway & Briner, 2015). Employees play a vital role in ensuring that the service quality remains

high throughout the employee-customer exchange (Paul & Sahadev, 2018; Schiemann, Seibert, & Blankenship, 2018). In the service industry, the SPC is one of the most appropriate theories that researchers can use to explain organizational success for integrating concepts of operations (e.g., customer-service) management with human resources (Yee et al., 2011).

Several scholarly researchers (Cain et al., 2018; Dalla et al., 2018) have used SPC as a roadmap to increase service revenue in a variety of service businesses. This paradigm was used to link a service company's revenue variable and the level of competitiveness subjecting to the relationship with its customers and employees. Thus, the interaction between employee and customer influences the level of service quality, resulting in generating service revenue from the customer's perspective (Hult, Morgeson, Morgan, Mithas, & Fornell, 2017). In the SPC model, three main constructs are CRM, employee retention, and service revenue (Cain et al., 2018). Consequently, the conceptual framework of the SPC theory is the appropriate lens to investigate the link between employees, the level of customer service relationship, and service revenue performance. Based on this theoretical model, researchers can define and measure linkages between customer relationship with a service provider, employee retention, and service revenue.

**Herzberg's motivational theory.** In the literature, scholars have stated that employee satisfaction and retention are major drivers of customer satisfaction (Frey, Bayón, & Totzek, 2013). Conversely, customer satisfaction is an important determinant of employee satisfaction leading to enhancing employee retention. Frey et al.'s (2013) findings are in line with Herzberg's motivational theory that customer satisfaction

affecting the perceived appreciation of employees indirectly impacts employee satisfaction. However, Herzberg's motivational theory focuses on motivation between employee and customer expectation of the service quality that is a vital facet to increase service revenue for a service company. In contrast, the SPC reflects organizational alignment between customer-employee interaction and service revenue gained from customers (Dalla et al., 2018).

**Major theoretical propositions.** Employees play a central role in service firms to deliver the level of service quality provided to customers (Kolar, Erčulj, & Weis, 2019; Myrden & Kelloway, 2015). An employee's attitude and actions during the service exchange can create an impression on the customer. Thus, employee behaviors contribute significantly to the level of satisfaction and loyalty of customers (Kolar et al., 2019). Ultimately, the service revenue depends on the employee's willingness and ability to positively interact with their customers (Myrden & Kelloway, 2015). Hence, from the customer's perspective, the level of service quality leading to customer satisfaction depends on the interaction between employee and customer (Cain et al., 2018). According to the SPC model, satisfied employees can deliver high-quality service and bring satisfaction to their customers (Cain et al., 2018; Kolar et al., 2019; Myrden & Kelloway, 2015). Once customers are satisfied with the service provider, they may either repurchase or advertise the service through word of mouth to others, leading to more customers (Agnihotri, Yang, & Briggs, 2019; Omar, Ariffin, & Ahmad, 2016; Triznova, Maťova, Dvoracekc, & Sadek, 2015). Consequently, positive customer experiences increase service revenue and reinforce customer relationships as well.

In recent studies, Huang and Cheng (2016) have stated that strong CRM helps to increase customer loyalty and lead to improvement of financial performance for the service firm. Hence, business managers and leaders can apply the SPC model to mediate the interaction between their employees and customers to improve their service performance. The service performance reflects the retention of traditional customers, acquisition of new customers, and increase of service revenue. Huang and Cheng (2016) utilized customer satisfaction as a mediating construct to test the link between CRM and financial performance by using the SPC model. In conclusion, the SPC theory is an appropriate lens used to test the hypothesis of the relationship between the increase of service revenue and customer relationship measured by the level of customer satisfaction and loyalty (Dalla et al., 2018). CRM includes management of customer satisfaction, customer retention, customer acquisition, and customer loyalty (Bashir, 2017; Borchardt et al., 2018).

**The theory's applications to the current study.** Through historical research, Hogreve et al. (2017) used the SPC theory to examine the influence of service quality on a firm's revenue performance. The customer relationship also reflects the level of service quality. Researchers can reflect the simultaneous satisfaction and loyalty of employees and customers through the SPC theory (Cain et al., 2018; Hogreve et al., 2017). Normally, service firms can maximize employee satisfaction and external service quality (i.e., customer satisfaction, and service relationship) to increase their service revenue performance (Hogreve et al., 2017).

Employee retention is a firm's human resource strategy to increase human capital that is an essential competitive advantage to drive its business (Schiemann et al., 2018). Improved HR capability can improve the financial revenue performance of an organization (Chuang, Liu, & Chen, 2015). Once employees are satisfied with work, they will develop an emotional commitment to the organization, enhancing employee retention (i.e., reduce employee turnover). Employee retention is either recognition or reward for the employee's performance to ensure employee satisfaction and loyalty (Paul & Sahadev, 2018). In a review of the literature, many scholars (Chuang et al., 2015; Hogreve et al., 2017) indicated that employee satisfaction and loyalty have a significant impact on the level of satisfaction and loyalty of customers. Within the SPC theory, if customers are satisfied with the quality service, they may desire to repurchase the service, or, deliver positive referrals to other customers (Myrden & Kelloway, 2015). Superior customer service leads to increased service revenues and higher firm performance. Previous researchers indicated interesting findings from the literature review related to the SPC theory. There was a significant relationship between internal service quality (i.e., the internal quality of work leading to employee satisfaction), customer satisfaction, and service revenue (Dalla et al., 2018).

In summary, the SPC is an integrative model for examining how employee satisfaction and retention variables are related to customer satisfaction and retention variables, and how they lead to escalating service revenue (Conway & Briner, 2015; Heskett et al., 1994). Three main variables related to the SPC theory are employee, customers, and firm performance. Customer loyalty or retention is a result of customer

satisfaction. The level of satisfaction is subject to the value of services provided to customers. Through the literature review, many scholars used the SPC theory to examine the relationship between service quality, employee-customer interaction, and service revenue (Dalla et al., 2018; Longoni & Cagliano, 2016). Customer satisfaction depends to a large degree on service quality that is a foundation of CRM. The relationship between employee and customer is also an asset of a firm, and the employee-customer interaction is to generate the service revenue. Employee retention may lead to increased service revenue from current customers and help the firm to acquire new customers. My present study will examine the relationship between CRM, employee retention, and service revenue. Next, in the literature review, I consider how CRM relates to service revenue and its interaction with employee retention.

### **Customer Relationship Management**

In the extant literature, many researchers and practitioners provided different definitions of CRM. In the 1990s, when the business domain gradually emerged, CRM became the scholarly interest of global business and research inquiry (Soltani & Navimipour, 2016). Reinartz, Krafft, and Hoyer (2004) and Yim et al. (2004) defined CRM as a process of customer acquisition, retention, and termination of customers. Conversely, CRM is the process of acquiring and retaining profitable customers by delivering satisfaction and value-added exchanges from the serving business to the customers (Soltani & Navimipour, 2016). Likewise, recent researchers defined CRM as a strategic approach for developing closer relationships with key customers and customer segments, thereby improving business performance (i.e., revenue and profit) (Foltean,

Trif, & Tuleu, 2019; Jacob & Vernon, 2017; Kim, Sudhir, Uetake, & Canales, 2019; Terho & Jalkala, 2017). In practice, CRM supports business marketing and sales activities. Understanding CRM is to utilize the function of CRM for application in business practice.

Changes in strategies for CRM resulted in increasing or maintaining the customer's purchasing power, revenue, and market share as well during and after the recession (Notta & Vlachveib, 2015). In practice, a service company needs to secure loyal customers and talented employees to create more competitive advantages in a highly competitive market place. The competitive advantages reinforce the creation of service revenue in the long-run. Four strategic choices of the business strategy process are determinants of the attractive market, unique value, resources and capabilities, and sustainability of the competitive advantages (Dyer et al., 2016). Increasing advertising budget for the promotion or customers' care may create competitive advantages through CRM differentiation. Service firms can accept to increase marketing costs for acquiring new customer relationships to sell new services better than the cutting-off of costs to retrench the business (Fleaca et al., 2016). CRM as external management activities and employee retention as internal management activities are two key variables to create more service revenue to help the firms surviving over time.

One of the most important functions of CRM is to cultivate customer relationships for earning revenue in the long-term from related services through the repurchase of the service and for creating lifetime customer value (Agnihotri et al., 2019; Kumar, 2018; Lin, Wu, & Chiou, 2017). Many previous studies showed that CRM is a crucial factor for

success that can help service companies to improve their service quality, increase revenue, and enhance competitive advantage (Aka, Kehinde, & Ogunnaike, 2016; Al-Weshah, Al-Manasrah, & Al-Qatawneh, 2019; Kim et al., 2019; Thakur & Workman, 2016) since customers are vital to the firm in a highly competitive environment (Ghahfarokhi & Zakaria, 2009). A service firm leverages the value of existing customers to facilitate business and build a reputation through various marketing activities (Terho & Jalkala, 2017). Each customer has a specific value since he can create different economic values (i.e., value-added) to the firm (Reinartz et al., 2004).

In service businesses, a firm aims to acquire new potential customers and retain existing customers so that the service firm can maintain stable revenue from the existing customers in the long term and gain more revenue and profit from the newly acquired customers (Kim et al., 2019; Kumar, 2018). The service firm uses CRM as a management approach to create, develop, and reinforce the long-term relationships with existing and potential customers to maximize customer value and service revenue performance (Al-Weshah et al., 2019; Dalla et al., 2018; Foltean et al., 2019; Li, Huang, & Song, 2018; Longoni & Cagliano, 2016; Vaeztehrani et al., 2015). In conclusion, CRM brings added value creation and benefits not only for customers but also for the firms' employees (Arli et al., 2018; Dalla et al., 2018; Triznova et al., 2015). Service companies use CRM to create advantages for customer contact access, service quality improvements, high level of customer loyalty, to gain more service revenue (Al-Weshah et al., 2019; Dalla et al., 2018; Vaeztehrani et al., 2015). The customer relationships are valuable intangible assets of the firm that its competitors cannot easily replicate (Borchardt et al., 2018; Frey et al.,

2013; Saboo, Kumar, & Anand, 2017). Customers are valuable assets of a firm because of the existence of the links between customer retention and customer lifetime value (McCarthy & Fader, 2018; Vaeztehrani et al., 2015). Therefore, prior researchers conceptualized customer relationships as market-based assets with lifetime value (Bauman & Shaw, 2018; Nenonen & Storbacka, 2016).

Alternatively, a service company enhances its core competencies in customer services enabling the firm to gain a more predictable and sustainable revenue stream through CRM (Foltean et al., 2019; Saboo et al., 2017). The relationship between the firm and its customers is symbiotic. The firm brings value such as service quality, price benefits, utility benefits, service staff knowledge, and skills to customers. In contrast, the customers also create value such as satisfaction, trust, and commitment to the firm (Kuzgun & Asugman, 2015). The more satisfied a firm's customers are, the more likely that they form a loyal and increasingly profitable customer base. More satisfied customers translate into more revenue for the firm (Vaeztehrani et al., 2015). The literature review indicated that by utilizing CRM, firms increase savings by 8.71 for every \$1 spent and increase revenue by 41% (Li et al., 2018). Thus, the CRM may create competitive advantages to generate stable revenue growth in service businesses (Adewole, 2018).

Since a service firm having superior CRM can encourage customers to purchase new services and improve the measurement of customer satisfaction and loyalty, the firm can raise its brand image (Borchardt et al., 2018). To do so, the firm needs competent and experienced employees to understand and react to their customers' expectations

positively. Hence, the retention of competent and experienced employees is essential to developing positive relationships with the customers based on a trustworthiness in the service (Borchardt et al., 2018). Reinforcement of the employee-customer interaction competency results in brand loyalty that leads to greater revenue compared with competitors (Borchardt et al., 2018).

CRM enables the service firm to manage a portfolio of profitable and sustainable relationships with traditional customers to maximize value for both its shareholders and customers effectively (Ngo, Pavelkova, Phan, & Nguyen, 2018). The firm needs to take customer orientation seriously to obtain sustainable development by integrating marketing concepts and new information and communication technologies (Foltean et al., 2019; Ngo et al., 2018). CRM unites relationship marketing strategies and IT to create profitable customer relationships in the long-term (Hanssens & Pauwels, 2016; Jacob & Vernon, 2017). Hence, CRM helps managers to understand and exceed customers' expectations and co-create value for both the firm and its customers (Foltean et al., 2019; Jacob & Vernon, 2017; Thakur & Workman, 2016; Triznova et al., 2015). Such an understanding of its customers provides unique and valuable management insight that will help the company retain current customers and create additional value for the customers by diversification of the service through customer relationship development. Service diversification to increase revenue requires more customers (Eckardt & Skaggs, 2018). However, service diversification requires an amount of diversified knowledge, and such knowledge can create difficulties in managing customers (Eckardt & Skaggs, 2018). Thus, the firm needs to retain well-trained employees to implement the diversification

strategy for stimulating more achievement of revenue. In summary, CRM can enhance the service firm's revenue growth and its customers' loyalty (Dalla et al., 2018).

**CRM implementation.** In the process of CRM implementation, the firm needs to trade-off costs to serve customers and value creation by the customers to the firm (Dalla et al., 2018; Thakur & Workman, 2016). The firm needs to identify the customer segments that are valuable to create service revenue. Then, the firm will allocate appropriate resources as needed to care for the different groups of customers who contribute more profitability to the firm (Thakur & Workman, 2016; Vaeztehrani et al., 2015). Various authors found a significant relationship between customer loyalty, satisfaction, and revenue value (Dalla et al., 2018).

**Marketing capability.** New service development reflects marketing capabilities to meet customers' preferences to achieve the growth of service revenue (Ngo et al., 2018). Marketing capabilities not only focus on the promotions, prices, and distribution of goods and services but also on improving brand new products and services (Ngo et al., 2018). Instead of cutting operating costs, a service firm should allocate a budget to diversify services and to acquire more customers who are the potential to purchase diversified services of the firm (Eckardt & Skaggs, 2018). Recent literature explained that firms that invest in marketing activities lead to customer satisfaction to gain further revenue and free cash flows (Jones & Ragothaman, 2016). Consequently, good CRM will enhance marketing capabilities supporting the service firms to earn larger revenue, reinforce customer retention, and minimize acquisition costs (Al-Weshah et al., 2019; Saboo et al., 2017). To do so, the firm must require well-trained employees who can

develop and diversify services so that it can achieve more revenue from the acquired customers (Adewole, 2018; Hanssens & Pauwels, 2016).

Moreover, several papers revealed there was a statistically significant relationship between product development, customer retention, employee satisfaction, and business revenue (Adewole, 2018). Since CRM improves customer satisfaction and retention, it helps the firms acquire new customers, decrease general and administrative expenses, increase revenue, and improve operating cash flow (Jacob & Vernon, 2017). A high level of customer satisfaction and retention leads to a strong repurchase intention that results in the growth of both service revenue and profit (Li et al., 2018). Therefore, service firms prefer to use CRM to maintain their existing market share and to reach out to new potential market segments (Li et al., 2018).

**Human resource management.** Employee retention and customer service behavior are two crucial factors translating into customer satisfaction (Hong et al., 2013). CRM involves human resource management, marketing, customer service, and business analysis that impact revenue and the growth of businesses in the long run (Adewole, 2018; Al-Weshah et al., 2019). CRM and human resource management capabilities can mediate the effect of business differentiation strategy to stimulate sales growth (Köseoglu, Parnell, & Doyle, 2015). Differentiation is a generic competitive strategy that focuses on providing customers with a unique product offering for which they are willing to pay a higher price compared to competing for service offerings (Köseoglu et al., 2015). CRM and organizational resource management are key drivers of revenue growth so that service firms can develop their capabilities and adopt a differentiation strategy instead of

price-cutting, and promotional tactics to grow revenues (Köseoglu et al., 2015). Many scholars also indicated that CRM could create a viable competitive advantage to enhance business revenue growth (Adewole, 2018; Thakur & Workman, 2016). Thus, business leaders use CRM to sustain long-term relationships with their customers by offering new products or services to satisfy emerging demands from these customers (Ngo et al., 2018). Based on the literature review, I examine the relationship between CRM and service revenue of service firms. Each customer brings a specific value-added to a service provider. Thus, the firm needs to understand customer lifetime value to have specific treatment to different customers. CRM will enhance brand value and customer lifetime value (Li et al., 2018).

### **Customer Lifetime Value**

There are several definitions of CLV from various scholars. CLV is the sum of the cumulative cash flows of a customer over his or her lifetime with the company (Vaeztehrani et al., 2015; Xie, Wu, Xiao, & Hu, 2016). A service company needs to estimate CLV so that it can treat each customer differently subject to the customer's contribution. Many service companies used CLV to reduce the costs of marketing, transaction, and increasing revenue and profit (Kumar & Reinartz, 2016; Saboo et al., 2017). For instance, the firm's leaders can map out tactics or strategies to optimize the allocation of limited resources, to retain, and to acquire more customers to achieve more revenues. Nenonen and Storbacka (2016) explained that CLV is as a tool of CRM for increasing revenues from customers, decreasing customer-related costs, optimizing asset utilization, and reducing customer-related risks. In other words, CLV is the present value

of the expected sales, less the costs for a particular customer (Nenonen & Storbacka, 2016). Mostly, CLV includes three basic elements, such as the customer, the costs of serving the customer, and the customer retention rate (Nenonen & Storbacka, 2016). The customer equity is the sum of the lifetime value of all customers of the service firm (Kumar & Reinartz, 2016; Romero & Yagüe, 2016). Loyal or retained customers are the most profitable customers who make purchases frequently and generate a significant proportion of annual revenue (Vaeztehrani et al., 2015). One of the benefits of CRM is to evaluate customer satisfaction and retention so that a firm can control its service quality.

### **Customer Satisfaction**

Service firms can improve the measurement of the level of customer satisfaction if they have CRM. Bashir (2017) used statistical data to find a positive relationship between CRM and customer satisfaction. In the literature, scholars defined customer satisfaction as a customer's sense of contentment gained from a service provider that the service provider supplied to the client (de Jesus Moreira Junior, Ansuji, de Oliveira, & Weise, 2019; Liu, 2019). Customer satisfaction is a cumulative overall satisfaction of all customers with the firm over time (Liu, 2019). Service quality is a key driver of customer satisfaction (Lomendra, Sharmila, Roubina, Ganess, & Meh-Zabeen, 2019; Omar et al., 2016). Also, many academic researchers (Agnihotri et al., 2019; Hogueve et al., 2017; Wolter, Bock, Mackey, Xu, & Smith, 2019) explained that customer satisfaction leads to increases in service revenue because it increases customer loyalty and repurchase intentions. Since the loyal customers are familiar with the firm's service processes, they are reluctant to change to similar service providers. Therefore, service providers may

reduce service costs and marketing expenditures from increasing customer loyalty (Hogreve et al., 2017).

Customer value is a dual concept (Kumar, 2018). Once a service firm brings customer satisfaction and loyalty, then the firm has created value for the customers (Kumar & Reinartz, 2016). Mostly, customers are looking for service providers that can generate the best-expected utility at the lowest paid. Otherwise, service providers are seeking customers who can yield more revenues and profits over time. With a high customer satisfaction level, the customers will exhibit a strong repurchase intention (Agnihotri et al., 2019). The repurchase intention leads to the growth of both sales revenue and net income (Li et al., 2018; Wolter et al., 2019). The trend of high customer satisfaction leads to a stronger competitive position resulting in higher market share, and profit prevails (Strenitzerova & Gana, 2018). There are many ways to measure customer satisfaction. Trust, commitment, communication, and service quality are major determinants of relationship marketing influencing customer satisfaction (Aka et al., 2016). Once there is customer satisfaction, then the service company needs to manage how to embrace customer retention.

### **Customer Retention**

Customer retention is an effect of customer satisfaction (Benjarongrat & Neal, 2017). Customer satisfaction has a positive impact on customer loyalty (Diallo, Diop-Sall, Djelassi, & Godefroit-Winkel, 2018). Customer retention is one of the primary goals of CRM activities (Yim et al., 2004). Enhancement of customer satisfaction not only results in diversified business expansion, lower acquisition costs, but also higher

customer retention (Sungwook et al., 2016) since satisfied customers are willing to pay additional fees for service (Agnihotri et al., 2019). Customer retention is an important marketing strategy for the survival of companies in a competitive environment (Ghahfarokhi & Zakaria, 2009; Kim, Song, Lee, & Lee, 2017; Maicas & Sese, 2015; Sungwook et al., 2016). Existing literature indicated that customer retention stimulates the growth of business revenue (Soltani, Zareie, Milani, & Navimipour, 2018). The customer acquisition process is typically concerned with acquiring new customers or new markets, while customer retention activities are related to maintaining relationships with existing customers (Koosha & Albadvi, 2015). The main purpose of customer retention management is to build strong relationships with profitable customers leading to customer bonding or customer loyalty (Benjarongrat & Neal, 2017; Diallo et al., 2018; Gouthier & Schmid, 2003). These researchers used appropriate descriptive and inferential statistics to analyze findings and found that there was a statistically significant relationship between customer care strategies and customer retention, public image maintenance, and customer care (Adewole, 2018). There was a statistically significant relationship between analytics and service revenue, product development, and customer retention (Adewole, 2018). Acquisition and retention reflect measurements of the effectiveness of marketing activities (Koosha & Albadvi, 2015). Customer retention enables a service diversification strategy so that the firm can earn more revenue because the existing customers are easy to approach the firm's new services (Sungwook et al., 2016).

Also, there was a statistically significant relationship between business reporting and employee satisfaction, customer retention, product market development, and business revenue (Adewole, 2018). Bashir (2017) explored the link between CRM and customer retention by mediating customer satisfaction. Customer retention is important to most companies because the cost of acquiring new customers is far greater than the cost of maintaining a relationship with a current customer (Bashir, 2017). Since customer satisfaction changes over time, service employees need to understand the changes in customer expectations so that the firm can retain customers (Bendaravičienė & Vilkytė, 2019).

Moreover, Li et al. (2018) explained the influence of CRM on service quality. First, CRM facilitates firms' understanding of customized needs. With such understanding, firms can provide additional personalized products and services and consequently make customers feel that the quality of their products and services is improving. Secondly, CRM can reinforce the relationship between a firm and its customers. CRM can direct a firms' attention to its customers and enable them to convert new customers into loyal, lifetime customers. Third, CRM enables firms to automatically respond to and deal with the orders and inquiries of customers with considerable accuracy. Next, in the literature review, I also need to consider how service quality involves in CRM and employee retention.

### **Service Quality**

In the flourishing service industry, service quality creating customer value is a crucial factor in determining customer satisfaction (Adeinat & Gregg, 2018; Chien &

Chi, 2019; Conway & Briner, 2015; Lee et al., 2017). Service quality improvement leading to customer satisfaction is a company's primary success factor (Chien & Chi, 2019; Lomendra et al., 2019; Omar et al., 2016; Su & Teng, 2018). The competitiveness of a service company does not only depend on the quality and price ratio of the services, but also on changing customer behavior, for instance, customer needs and expectations, perception of added value, customer experience, and satisfaction with the service quality (Bendaravičienė & Vilkytė, 2019). Exploratory research by Parasuraman, Zeithaml, and Berry (1988) offered ten dimensions to evaluate service quality. These dimensions were tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding (i.e., knowing the customer), and access. These ten dimensions formed the basic structure of the service-quality which were derived for the SERVQUAL scale. However, tangibility, reliability, assurance, responsiveness, and empathy are five dimensions proposed by Parasuraman et al. (1988) that are widely used in service quality assessments in different research areas (Adeinat & Gregg, 2018; Chien & Chi, 2019; Omar et al., 2016; Wu & Li, 2017). In the literature review, scholars indicated that service firms could use the SERVQUAL instrument to measure potential service quality problems and the model of service quality to diagnose possible causes of the problem so that the firm could improve the service performance (i.e., including service quality and service revenue; Bendaravičienė & Vilkytė, 2019; Lomendra et al., 2019). Service quality bases on the customers' expectations (Conway & Briner, 2015; Hult et al., 2017; Lee et al., 2017; Liu, 2019). Thus, service quality can be conceptualized as the difference between the customer's perceptions and expectations of the given service delivery. If the

customer expectation is greater than the perception of received delivery, then service quality is considered low and vice versa (Bendaravičienė & Vilkytė, 2019).

However, customer satisfaction reflects the measurement of service quality provided by a service provider (Omar et al., 2016; Strenitzerova & Gana, 2018). The difference in customer's perception-expectation can measure the customer's satisfaction (Wu & Li, 2017). The perception of service quality significantly depends on the employee-customer interaction (Paul & Sahadev, 2018; Myrden & Kelloway, 2015). A good employee's attitude will leave a good impression on the customer during the service provision. On the opposite, positive customer feedback brings positive effects on employee satisfaction and enhances retention as well (Frey et al., 2013).

The service firm can enhance customer retention and acquisition by offering better customer service (i.e., improvement of CRM system and degree of service quality; Markovic, Iglesias, Singh, & Sierra, 2018). Moreover, better customer service quality brings more satisfaction to the employee and customers, resulting in the enhancement of their retention as well (Saha & Kumar, 2018). Service quality dimensions are significant predictors of customer satisfaction and loyalty, accounting for the increase in service revenue (Becerril-Arreola, Zhou, Srinivasan, & Seldin, 2017; Izogo & Ogba, 2015). Furthermore, recent scholars stated that service quality reflects customer satisfaction (Hogreve et al., 2017). Improving service quality leads to enhancing customer satisfaction of newly acquired customers (Huang & Cheng, 2016), service quality and customer satisfaction are important factors that service companies should use to develop customer-based corporate sustainability (Strenitzerova & Gana, 2018; Wu & Li, 2017).

Several scholars mostly used the five-dimensional model of assurance, reliability, tangibility, empathy, and responsiveness to identify and measure service quality and customer satisfaction (Bendaravičienė & Vilkytė, 2019; Lomendra et al., 2019; Omar et al., 2016). The five-dimensional model of assurance, reliability, tangibility, empathy, and responsiveness is a SERVQUAL methodological approach. According to Parasuraman et al. (1988), tangibility is the appearance of physical facilities, equipment, personnel, and communication materials. Reliability is the ability to perform the promised service dependably and accurately. Responsiveness is a willingness to help customers and provide prompt service. Assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence. Finally, empathy is caring, individualized attention that the firm provides to customers. Hence, CRM bases on service quality so that the firm delivers to its customers (Aka et al., 2016). Previous researchers indicated that service firms could earn more revenue and keep a high level of competitiveness in the highly competitive market place by improving service quality to strengthen relationships with current customers and stakeholders (Aka et al., 2016).

### **Customer – Employee Interaction**

The employee-customer relationship is the critical factor in service work (Cogin, Sanders, & Williamson, 2018; Conway & Briner, 2015; Tomic, Tesic, Kuzmanovic, & Tomic, 2018; Wolter et al., 2019). Customers are also a company's employees (Cogin et al., 2018; Triznova et al., 2015). Employees and customers can share the same values because interactions between employees and customers generate value-added to the company (Triznova et al., 2015). The sharing of the company values among company

stakeholders is unique, intangible, valuable, rare, and also it is costly for the firm's competitors to imitate. Consequently, the good relationship between the firm's employees and customers will create a unique customer experience (Hussein & Goel, 2016).

When customers are more satisfied, the benefits of customer loyalty, for instance, customer retention, revenue growth, will increase (Agnihotri et al., 2019; Jones & Ragothaman, 2016; Tomic et al., 2018). High customer satisfaction will lead to positive employee performance and generate positive effects to enhance employee retention (Jones & Ragothaman, 2016; Wolter et al., 2019). Therefore, under pressures of economic downturns, a service firm should maintain high levels of customer satisfaction to reduce employee replacement costs and employee turnover (Dhanpat, Modau, Lugisani, MaboJane, & Phiri, 2018; Jones & Ragothaman, 2016). Employee satisfaction is a primary result of customer satisfaction and CRM (Cogin et al., 2018; Hogleve et al., 2017; Strenitzerova & Gana, 2018). Improving employee satisfaction thus appears to be instrumental in decreasing employee turnover (Hussein & Goel, 2016; Rust, Stewart, Miller, & Pielack, 1996). Employees are also customers (Cogin et al., 2018; Rust et al., 1996), then customer satisfaction measurement can be used to measure employee satisfaction and retention (Hussein & Goel, 2016; Wolter et al., 2019). Customer satisfaction is an important determinant of employee satisfaction, which in turn increases employee retention (Frey et al., 2013; Wolter et al., 2019). In conclusion, CRM is used to measure the level of customer satisfaction and retention, leading to employee retention that results in increasing service revenue for success in sustainable development (Strenitzerova & Gana, 2018).

## **Employee Retention**

Employee retention is crucial to the long-term success of most service companies (Bermúdez-González, Sasaki, & Tous-Zamora, 2016; Dhanpat et al., 2018). If the firm has retained talented employees, it gives the firm a more competitive advantage, thus increasing revenue. Successful companies realized that experienced employees care for customer satisfaction better than new employees. Firms need to retain senior employees who have experience with traditional customers for marketing new products or services to increase service revenue from innovative service businesses. Five facets contributing to long-run service revenue are legal compliance with business, maintaining customer relationship, retention to motivate employee's royalty, propagation of good policies to customers and employees, and enhancing reputation (Karim et al., 2016). Employees in high-contact service systems in CRM are vital to providing high-quality service that, in turn, drives customer satisfaction and retention (Iman & Norizan, 2019).

Employee retention affects customer satisfaction via customer service delivery (Conway & Briner, 2015). Many scholars explained that instead of a short-lived revenue bonus, hours reduction could help preserve work relations and expected long-term wealth (Lepage-Saucier, 2016). Employee retention impacts service quality because retained employees are more loyal and make their best effort to deliver the best possible services with the highest quality (Tomic et al., 2018). Retention of talented employees (e. g., experienced or senior employees) is to retain knowledge and skills gained from hired talents that will play a complementary factor to support current capabilities for expanding new service businesses (Bibi, Ahmad, & Majid, 2018). Besides, skillful training and

development are vital to foster employee retention (Aruna, 2018). Consequently, such complementary knowledge and skills of employees may lead to an increase in more revenue and sustainability (Hee-Jung & Ji-Young, 2018). However, reductions in employment and wages may bring a greater possibility to lower service quality and duplicate employees and reduce labor costs in mergers activities (Lee, Mauer, & Xu, 2018). Several academic researchers indicated that employee departure leads to lower productivity and business revenue but increases overhead cost, and benefits competitors (Bibi et al., 2018; Dhanpat et al., 2018; Jindal, Shaikh, & Shashank, 2017; Kundu & Lata, 2017; Tomic et al., 2018).

Employee retention is the ability of a firm to retain talented employees to gain specific and improved business performance, leading to sustainable competitive advantage (Kundu & Gahlawat, 2016; Tomic et al., 2018). Sustainability-based business models that create a trustful environment for enhancing employee retention to develop innovation in service quality, lead to sustainable competitiveness (Decha, 2018; Lee & Chen, 2018). Since employee retention improves a company's image, employee participation in decision making, competitive salary package, and better treatment of employees, it impacts on the company's performance positively (Kundu & Gahlawat, 2016). Developing and retaining a talented workforce helps the company to sustain competitive advantage through the effective delivery of services (Decha, 2018; Kundu & Gahlawat, 2016). Employee retention is one of the internal management activities of human resource management that can impact on the level of service quality, reputation, and customer satisfaction leading to either customer deflection or hurt customer

relationships (Bermúdez-González et al., 2016; Conway & Briner, 2015; Hollmann, Jarvis, & Bitner, 2015; Paul & Sahadev, 2018).

Reward, recognition, and respect are three ultimate factors enhancing employee retention for improving efficiency, reducing absenteeism, and creating a pleasurable work environment and higher earnings (Dhanpat et al., 2018; Kundu & Lata, 2017). A service company can use compensation policy to enhance employee performance so that it enhances employee satisfaction to retain the employees for a long-time stay (Okwudili & Edeh, 2017). The compensation system is also a powerful tool with performance evaluation as the important evidence and repaying and stimulating employees' work, and is a system covering intrinsic rewards and extrinsic rewards as well (Quratulain & Khan, 2015; Yin, 2018).

Extrinsic rewards mainly refer to the quantifiable monetary value, for instance, salary, bonus, welfare, provided to the employees to meet the needs of the survival and security of the employees (Lim, Lee, & Bae, 2019; Yin, 2018). Intrinsic rewards provide the employees with the needs to satisfy the realization of inner value (Yin, 2018). Intrinsic rewards include all kinds of rewards that could not be quantified in monetary forms, such as promotion, power, prestige, ability enhancement, or further improvement of work resources (Dindar, 2018). Hence, a performance evaluation and compensation system with internal equity and external competence is conducive to promoting employees' organizational justice and stimulate their initiative to increase their job engagement (Yin, 2018).

Job engagement increases the effort, job satisfaction, job accuracy, and completeness of communications (Yin, 2018). Employee job engagement had a positive influence on work performance (Jindal et al., 2017; Yin, 2018). An effective compensation system does not only reflect an increase of income distribution, but also a form of value realizing the full motivation of employees that enhances job engagement as well (Jelena, Ivan, & Isidora, 2019; Yin, 2018). Business leaders manage their human capital through the adoption of various compensation practices related to development and empowerment to foster employee engagement and retention (Jelena et al., 2019; Kundu & Gahlawat, 2016). Also, a positive work environment reciprocates employee retention (Agarwal, 2016; Dhanpat et al., 2018).

Previous academic scholars found that salary benefits have a statistically significant relationship with intended increased revenue and employee retention (Agnihotri et al., 2019; Hogleve et al., 2017; Spencer, Gevrek, Chambers, & Bowden, 2016). The cost of losing employees and recruiting replacements averages 20 percent and often exceeds 100 percent of annual compensation for each position lost (Spencer et al., 2016). Family-friendly policies that balance work and family can help to reduce employee turnover (Spencer et al., 2016). Benefits and organizational culture tend to be key indicators of job satisfaction (Spencer et al., 2016).

A high degree of employee retention indicates employees' positive experience with work and high motivation to seek sales opportunities to increase revenues (Bibi et al., 2018; Hogleve et al., 2017). Job satisfaction, affective organizational commitment, and organizational culture enhance employee retention (Jindal et al., 2017;

Phongpanichanan & Rajaratnam, 2016). In the competition of a high market place, a company needs to require the retention of its key personnel to foster potential successors for critical job functions or develop tools or systems to retain good employees for the business expansion (Phongpanichanan & Rajaratnam, 2016). More experienced service employees generate more revenue by selling new products (Hogreve et al., 2017). A high level of employee retention reflects high employee loyalty to be associated with higher service revenue (Hogreve et al., 2017).

Employee retention is used to reduce employee turnover intention because employee turnover reduces business performance (Decha, 2018; Hussein & Goel, 2016; Spencer et al., 2016). When a key service employee leaves a business-to-business firm, the connection with the customer accounts becomes severed (Shi et al., 2017). Therefore, employee retention mitigates this risk, saves costs related to employee replacement, and keeps fostering customer relationships (Hussein & Goel, 2016; Terglav, Konečnik-Ruzzier, & Kaše, 2016). Shi et al. (2017) found that service employee transitions lead to 13.2%–17.6% losses in service revenues. New hires are less effective than the existing service employee in mitigating losses of service revenues. Service managers need to trade off the benefits and opportunity costs of reassigning customers to various service employees (Shi et al., 2017). The cost of losing employees and recruiting and training replacements averages approximately 20 percent and often exceeds 100 percent of annual compensation for each position lost (Spencer et al., 2016). Employee retention is partially determined by employee satisfaction. Some researchers found a statistically significant

relationship between customer satisfaction and employee retention through a mediating variable of employee satisfaction (Frey et al., 2013).

### **Employee Satisfaction**

Employee satisfaction enhances employee retention, customer satisfaction, and service revenue, e.g., an increase in revenue performance generated by satisfied employees (Hogreve et al., 2017; Wolter et al., 2019). Satisfied employees have positive attitudes toward their jobs and engage in behaviors to support the firm and its customers (Hogreve et al., 2017; Wolter et al., 2019). Employee satisfaction directly elicits customer satisfaction (Cogin et al. 2018; Hogreve et al., 2017; Wolter et al., 2019). Employee satisfaction has been found to affect the firm's financial performance (Köseoglu et al., 2015). Since customer satisfaction enhances revenues, employee satisfaction, and retention (Frey et al., 2013), positive customer feedback has positive effects on employee satisfaction and recognition (Hogreve et al., 2017). Satisfied employees have positive attitudes toward their jobs and engage in behaviors to support the organization and its customers (Frempong, Agbenyo, & Darko, 2018). Thus, employee satisfaction is associated with higher employee retention and productivity (Hogreve et al., 2017). Critical constructs of employee satisfaction and retention are working conditions, compensation, and interpersonal relationships (Frey et al., 2013). Training programs for employee development is an imperative operational investment required to increase employee satisfaction and retention (Decha, 2018).

In this study, I examine the relationship between CRM, employee retention, and service revenue. Previous scholars used the SPC theory to examine the relationship

between employee-customer interaction and service revenue (Dalla et al., 2018). The employee-customer interaction creates a valuable relationship that may become an intangible asset of a service firm utilized to generate business revenue. Next, in the literature review, I consider how revenue performance is relevant to CRM, employee retention, and the SPC theory.

### **Revenue Performance**

Heskett et al. (1994) postulated by the SPC model that the satisfaction and loyalty of engaged employees transfer into customer satisfaction and loyalty, which in turn yields improved business performance (e.g., revenue growth and profitability). Then, service revenue is a variable of the SPC theory that is also an indicator of a firm's business performance (Kundu & Gahlawat, 2016). Service organizations can attain sustainable competitiveness by an engaged workforce. The SPC model proposes that revenue growth and profitability are derived from loyal customers who are completely satisfied with the perceived value of the service they receive (Heskett et al., 1994; Iman & Norizan, 2019). The quality of work-life provided by the service firm will create service value (Cogin et al., 2018; Conway & Briner, 2015; Hult et al., 2017). The quality of work life is influenced by the favorable conditions and environments of a workplace to promote employee satisfaction. Rewards, compensation, promotion, recognition, development, and meaningful work enhance the level of employee satisfaction (Frey et al., 2013; Hogreve et al., 2017). Also, Stanescu, Danila, and Horga (2018) indicated that service firms having more engaged employees could generate higher service revenue in business. In the previous research studies, employee retention has a significant positive effect on

revenue (Hogreve et al., 2017). Investments in customer satisfaction might pay off double by enhancing revenues and profit on one hand and enhancing employee satisfaction and retention (Frey et al., 2013).

Moreover, customer satisfaction is the ultimate source of increased sales and repeats business and key to providing a competitive advantage and differentiation for service firms in an increasingly competitive business environment (Ghahfarokhi & Zakaria, 2009). A service firm by using CRM can enhance customer satisfaction and retention to increase the added value of service revenue, ensuring its sustainable development (Strenitzerova & Gana, 2018). Hence, there was a significant relationship between customer relationship and service revenue (Adewole, 2018). Upon attaining the revenue growth, the firm also needs to manage the service revenue to improve the internal service quality and service value serving back to the customers (Kim et al., 2014). Therefore, revenue management (RM) is required to identify revenue-generating opportunities and to optimize revenue and profit generation.

RM is the application of information systems and pricing strategies to allocate the right capacity to the right customer at the right price at the right time (Vaeztehrani et al., 2015). Customers are valuable intangible assets of a firm that need to be valued and managed (Bauman & Shaw, 2018; Gupta & Lehmann, 2003). CRM involves the integrated management of profitable customer relationships to identify and retain the most profitable customers by the utilization of resources (i.e., information technology, employees, service processes) to maximize customer value to the company (Bahri-Ammari & Nusair, 2015; Borchardt et al., 2018; Soltani & Navimipour, 2016). Both RM

and CRM are two business strategies used to increase service revenue and profitability (Guillet & Shi, 2019). In the literature, academic researchers indicated that information technology plays a vital role in RM and CRM supporting service firms to gain competitive advantages (Erdem & Jiang, 2016; Guillet & Shi, 2019). Therefore, in service industries, CRM needs to be integrated with RM for enhancing firm competitiveness in providing the services to customers (Guillet & Shi, 2019; Wang, Heo, Schwartz, Legohérel, & Specklin, 2015). Business leaders and managers may use different strategies to increase revenue in a way that should not be at the cost of damaged customer relationships (Vaeztehrani et al., 2015). RM and CRM are complementary factors for business strategies to create sustainable service revenue over the long-term business (Lin et al., 2017; Vaeztehrani et al., 2015). Customer-value based RM is also proposed to overcome the limitation of transaction-based RM by both utilizing capacities efficiently and to establish profitable customer relationships (Wang et al., 2015). Inappropriate RM practices can have negative effects on customer relationships, for instance, the defection of customer trust and loyalty (Guillet & Shi, 2019). The ability to increase revenue through effectively managed customer relationships can help companies overcome the uncertain nature of demand (Vaeztehrani et al., 2015). Acquiring and managing customers is one of the most vital activities in CRM to generate more service revenue (Saboo et al., 2017). The benefits of having strong relationships with customers are an increase in revenue due to provide new diversified products and services (i.e., large purchase size), reduction of transaction costs, and it results in increasing service profits or employee productivity (Saboo et al., 2017). After-sales that are also parts of

CRM could compensate for the volatile product business through a long-term relationship with customers during the product life cycle (Borchardt et al., 2018). Competencies in after-sale services are critical to retaining customers and require employees' education and training as well as employees' commitment.

Retention of engaged employees is crucial for future RM success (Jindal et al., 2017). Well-trained sales, service, and after-sales employees' competence are critical in attracting and retaining new sales opportunities to earn more revenue (Hogreve et al., 2017). Therefore, there may exist a connection between CRM and employee retention and service revenue growth. Li et al. (2018) found the operational benefits of CRM in increasing service revenue per employee of service companies. A service firm needs to enhance the engagement of both its customers and employees to sustain service revenue and its competitive advantages (Heymann, 2015; Jindal et al., 2017).

In summary, according to the SPC model developed by Heskett et al. (1994), service revenue growth is one of the financial indicators of business performance that is the end-value generating from the service value and internal service quality (Iman & Norizan, 2019; Lee et al., 2017). Several academic researchers (Heymann, 2015; Hogreve et al., 2017; Hult et al., 2017; Li et al., 2018; Saboo et al., 2017; Tomic et al., 2018) indicated that retention of engaged employees and CRM could support increasing service revenue. Also, CRM needs to be integrated with RM as a complementary element to create sustainable service revenue (Vaeztehrani et al., 2015).

## **Measurement of Research Variables**

**Constructs of CRM.** Since successful CRM implementation leads to enhanced customer satisfaction, customer retention, and customer acquisition (Oztaysi, Sezgin, & Ozok, 2011), its constructs may include customer satisfaction, customer retention, and customer acquisition (Gouthier & Schmid, 2003). Researchers indicated that CRM has a positive relationship with customer satisfaction and retention (Bashir, 2017; Strenitzerova & Gana, 2018). Reinartz et al. (2004) defined CRM as a process of customer acquisition, retention, and termination of customers. Thus, the constructs of CRM capture the degree of formalization of how to manage customer relationship initiation, maintenance, and termination (Reinartz et al., 2004).

Nevertheless, Dalla et al. (2018) proposed four major dimensions of CRM that have an impact on business activities are the strategy, organization, technology, and customer management. In similarity, Soltani and Navimipour (2016) suggested five dimensions: strategy, organization, technology, segmentation, and process are necessary to implement a CRM project effectively. Technology facet means using information technology to deploy for better management of customer relationships (Wang & Feng, 2012). CRM technology may help the firm to sustain profitable customer relationships by analyzing information about profitable customers, facilitating more efficient and effective firm-customer interactions (Wang & Feng, 2012).

However, Lindgreen, Palmer, Vanhamme, and Wouters (2006) developed a practical tool to question, identify, and prioritize critical components of CRM. Lindgreen et al. (2006) suggested ten constructs of CRM, including customer strategy, customer-

interaction strategy, brand strategy, value-creation strategy, culture, employees, organization, information technology, relationship-management processes, and knowledge management and learning. Lindgreen et al. (2006) used 11 scale levels ranging from 0 to 10. Level 0 is a minimum score indicating an immature and non-sophisticated relationship management structure. Level 10 is a maximum score indicating a situation with a mature and well-managed relationship management program. The tool covers constructs relevant to customer satisfaction, customer loyalty, and customer retention, employee retention, and financial performance as well. Moreover, Lindgreen et al. (2006) conceptualized CRM as these constructs to examine the automobile industry that is also a kind of field in the industrial service business. Thus, the measurement by Lindgreen et al. (2006) is appropriate to use in this quantitative study.

**Constructs of employee retention.** Employee retention drives external service quality and revenue growth (Iman & Norizan, 2019). Yee et al. (2011) measured employee retention scale by capturing six items asked the employee respondents to indicate the extent to which they agreed with the following statements: “I intend to be present for work”; “I intend to continue my employment in this company”; “I intend to contribute extra effort for the sake of this company”; “I intend to become a part of this company”; “I intend to turn down other jobs with more pay to stay with this company”; and “I intend to take any job to keep working for this company.” Competitive pay, supportive organizational climate, and opportunities are common features for learning and development (Kundu & Gahlawat, 2016). Nevertheless, some recent researchers found that the learning and development process becomes a strong retention practice

when it is combined with selective promotion and salary action (Bibi et al., 2018). Kundu and Gahlawat (2016) borrowed a nine-item measure of retention practices from existing literature of Agarwala (2003) to collect data from companies operating in India. The nine items were career development programs, faster promotions, competitive compensations and benefits (e.g., salaries), clear specification of roles and responsibilities, greater work autonomy, sharing of business information, supportive work culture, pleasant work environment, and job security. Respondents were asked to give their opinions on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), concerning the extent to which their companies adopted these retention practices. The nine items were grouped into two groups of development and empowerment, and supportive organizational culture.

**Constructs of revenue.** Firm performance is a very broad concept that has been used interchangeably with terms like productivity, efficiency, effectiveness, and, more recently, competitiveness and innovativeness (Kundu & Gahlawat, 2016). The eight items that Kundu and Gahlawat (2016) used to measure firm performance on a five-point Likert scale ranging from 1 (much lower) to 5 (much higher) are financial strength, profitability, return on equity, revenue (e.g., sales), market share, productivity, customer service, and quality. The respondents were asked to evaluate how their companies were performing in comparison with competing firms over the past three years in the same industry (Kundu & Gahlawat, 2016). In the relevant literature, academic researchers measured the revenue variable by asking the supervisor respondents to indicate changes in revenue performance (e. g., relative performance) of their respective companies in

comparison with competitors over the past specific years in the same industry (Iman & Norizan, 2019; Yee et al., 2011; Yim et al., 2004).

### **Transition**

Customer relationship and employee retention are two key factors that can generate more service revenue for service companies to overcome the difficult situation over time. Work-experienced employees can understand and bring more satisfaction to the customer, and vice versa, good customer relationships can bring more economic value to the company to enhance the company's employee retention. In this study, I provided a comprehensive analysis of how the interaction between customer relationships, employee retention, and service revenues in the first section. The main contents from Section 1 were the discussions on the SPC theory, CRM, employee retention, and service revenue. In the literature review of Section 1, I provided the foundation for the study to support for answering the research question.

In Section 2, I discuss the rationale for the selection of the research method and design to have suitable data collection to answer the research question. I provide detail explanations for the research participants, population and sampling, the role of the researcher, the reliability and validity of the research instrument, and ethical research. Moreover, data collection and data analysis in Section 2 are two core parts leading to the presentation of findings in Section 3.

## Section 2: The Project

Section 1 included the literature review, which provided a foundation that led to the research question for this study. In Section 2, the focus is on data collection and analysis to answer the research question. I test the hypotheses in this quantitative study by using a suitable survey instrument. In this section, I restate the purpose statement of the study, describe my role as the researcher, discuss the participants in the study, present the rationale for selecting the research method and design, and discuss population and sampling and compliance with ethical research. In addition, this section includes information on the data collection instrument and technique, data analysis, and a description of the study's validity and reliability.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. The independent variables were CRM and employee retention. The dependent variable was service revenue measured by gross service revenues of firms in the targeted population. The targeted population were 75 managers and business leaders of service firms from the industrial service field in Vietnam. Increased earnings of service company executives who retain employees maximize shareholder value, increase the tax base, and provide greater employment and stakeholder engagement to create a positive social impact (Dyer et al., 2016). Business leaders may apply the findings from this study to improve their revenue performance, thereby increasing employment and the tax base for the local government. Also, business leaders may benefit from improved customer relationships

and lower training costs that could increase profitability (Kawai, 2015; Lee, 2018).

Increased revenue means more jobs and income for members of the local community.

### **Role of the Researcher**

In a quantitative study, a researcher's role is to (a) select the research method and design; (b) collect, manage, and analyze data; (c) comply with ethical guidelines; and (d) publish the research findings (Kang et al., 2017). During data collection and analysis, the role of a quantitative researcher is to identify and study bias (Achinewhu-Nworgu, Nworgu, Azaiki, & Dikeh, 2015; Zyphur & Pierides, 2017). Thus, after the data collection and analysis stage, I sought to present the research findings in an objective, ethical, and unbiased manner. A rational selection between quantitative and qualitative research methods to collect and analyze data is another role of a researcher (Yip, Lee, & Tsui, 2015; Zhong, Tian, Hu, Grey, & Gilmont, 2016). I have no prior relationship with any of the participants in this study. I ensured confidentiality and privacy for participants during data collection to avoid any potential risks to the participants (Abramson et al., 2018; Famenka, 2016).

According to the U.S. Department of Health and Human Services (USDHHS), social researchers must avoid ethical issues. In the Belmont Report, fundamental ethical principles in research include respect of persons, beneficence, and justice (USDHHS, 1979). Respect of persons involves the acknowledgment of participants' autonomy as well as protecting incapacitated or immature participants (USDHHS, 1979). Researchers should inform participants that they may withdraw or refuse to answer the survey questions at any time (Judkins-Cohn, Kielwasser-Withrow, Owen, & Ward, 2014).

Beneficence requires that researchers should optimize the potential benefits while diminishing the potential risks of the participants (USDHHS, 1979). Justice in research involves participants taking part equally regardless of demographic background, capability, or ability (USDHHS, 1979).

As an ethical researcher, I invited target participants irrespective of gender, religious beliefs, and educational attainment. I mitigated the risks of ethical issues by keeping participants' identities anonymous in any report on this study's results and I informed the participants that they could withdraw or refuse to answer the survey questions at any time.

## **Participants**

### **Eligibility Criteria**

The eligibility criteria of participants reflect the reliability and validity of a study (Hernández et al., 2016). The sufficiency of the number of participants improves study reliability (Saunders & Townsend, 2016). Standardization of procedures and random selection of participants can improve the validity and generalizability of the research findings (Saunders & Townsend, 2016). Hence, the identification of appropriate participants is necessary and indispensable (Tight, 2017). In this quantitative study, eligible participants met the following criteria (a) full-time business leaders or managers working in the service industry in Vietnam, (b) with at least 3 years of experience, and (c) who spoke English.

### **Strategies for Accessing and Establishing Relationships With Participants**

I gained access to participants who met the participant eligibility criteria by using the Vietnam Business Directory to obtain contact information for service firms in the industrial service field. I sent the consent form to the participants, which contained information about the study topic, the research method, and the research design. Informed consent is a process to protect participants from any research ethics issues and to assure confidentiality (Mondada, 2014). Participants would not provide their name or the organization name where they are working to protect their anonymity. Participants in the target population who met the eligibility criteria then voluntarily consented to answer the survey questions. I also invited appropriate participants verbally. If they agreed, I sent a printed copy of the consent form to them. The consent form included the research topic, the purpose statement, the participants' eligibility criteria, and assurance for anonymity and protection of the participants' privacy to preserve confidentiality (Mondada, 2014). Also, I provided direct calls to participants for the return of the survey to increase the response rate.

### **Alignment of Participants' Characteristics and Research Question**

The participant characteristics aligned with the central research question. The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. In this study, participants met the eligibility criteria. All participants worked full-time in the service industry in Vietnam. All participants were business leaders or managers with at least 3 years of experience, and all the participants were English speakers. These participants may be interested in

answering the survey questions because the study topic is involved in their jobs or career goals. The high degree of topic relevance will motivate the participants and their voluntary participation (Zillmann, Schmitz, Skopek, & Blossfeld, 2014). Therefore, these participants aligned with the research question.

### **Research Method and Design**

There are three research methodologies, including quantitative, qualitative, and mixed methods (Hitchcock, Onwuegbuzie, & Khoshaim, 2015; Jarosławski, Azaiez, Korchagina, & Toumi, 2017; Mahimbo, Seale, Smith, & Heywood, 2017; Morgan, 2018). In this study, I used a quantitative research method and a correlational research design to examine the relationship between CRM, employee retention, and service revenue. Researchers use the quantitative method to test hypotheses by examining the relationships among variables using statistical data (Brunsdon, 2016). In this section of the study, I provide the considerations and rationale for adopting the quantitative method and correlational design.

### **Research Method**

I used the quantitative research method to examine the relationship between independent and dependent variables in this study. Quantitative researchers use quantitative methods to test, predict, and explain relationships among variables in a sample from which statistical inferences are generalizable to the larger population to answer a research question (Potter, Crane, & Hargrove, 2017; Westfall, Hatfield, Sowers, & O'Connell, 2017). Moreover, a quantitative method can provide valuable insight into the ordering of reality and help in mitigating personal bias (Savela, 2018). Also,

quantitative researchers can quantify the problem by transforming numerical data into constructs and looking for relationships between those constructs to formulate predictive models that can be generalizable to the populations the researchers drew the samples from (Adusumilli, Lacewell, Taylor, & Rister, 2016; Harsono, Galletly, O'keefe, & Lazzarini, 2017; Violante & Vezzetti, 2017; Wegscheidl, et al., 2017). Furthermore, the practical applicability of quantitative research aligns with Walden University's guidelines for doctoral studies. In this study, I tested the hypotheses to determine whether a relationship exists between the dependent variable and independent variables. Thus, the quantitative method was appropriate to obtain the objective of the study.

A quantitative method was more appropriate for this study than a qualitative or mixed-method approach for several reasons. The primary purpose of a qualitative study is to explore a research topic to focus on the descriptions of phenomena with words rather than numbers or graphics (Cowan, Clark, Gordon, Bok, & Shen, 2016; Khor, Goh, McDonald, & Holland, 2017; Mahimbo et al., 2017). The qualitative method is appropriate when researchers intend to explore information about the perspectives of individuals, the interaction of business leaders with their field, and the experiences of individuals (Levitt et al., 2018; Palinkas et al., 2015; Valdez et al., 2017). Moreover, qualitative research involves exploring and describing social phenomena by understanding real-world events from the perspective of study participants (Betti, 2016; Tang, Collier, & Witt, 2018; Zechella & Raval, 2016). The qualitative research method is suitable when the qualitative researcher attempts to discover new theories using an inductive approach (Chaumba, 2016; Christenson & Gutierrez, 2016; Ryu, Kim, & Lee,

2016; Worabo et al., 2016). In contrast to the qualitative approach, quantitative researchers use statistical techniques to reproduce optimal value to business leaders (Adusumilli et al., 2016; Harsono et al., 2017; Wegscheidl, et al., 2017). Thus, qualitative research was not appropriate for this study.

A mixed-method approach is the combination of quantitative and qualitative methods to generate synergy and to guide the researcher in obtaining a deeper understanding (Glover, McCormack, & Smith-Tamaray, 2015; Hitchcock et al., 2015; Parris, Shapiro, Welty-Peachey, Bowers, & Bouchet, 2015). Qualitative research was not appropriate in this study. Therefore, the qualitative portion of a mixed-method approach would have not been appropriate for this study. Furthermore, the use of mixed method can be more time consuming and require more funding and skills for data collection and analysis (Parris et al., 2015).

### **Research Design**

The quantitative research design involves the use of three primary designs: (a) nonexperimental, (b) quasi-experimental, and (c) experimental. I chose the correlational design for this study. Correlational design is a subcategory for nonexperimental research (Lee, 2015; Platow, Huo, Lim, Tapper, & Tyler, 2015; Quratulain & Khan, 2015). A correlational design involves examining and determining relationships that do not imply causation (Quratulain & Khan, 2015). A nonexperimental correlational design is convenient when a researcher desires to explore the significance of a relationship between two or more variables (Lee, 2015; Park & Park, 2016; Platow et al., 2015; Quratulain & Khan, 2015). Moreover, nonexperimental designs are most suitable when

time and cost could prohibit the study (Watson, 2015). The correlational design is appropriate for this study because the key objective for this study was to examine the relationship between a set of predictor variables (e.g., CRM and employee retention) and a dependent variable (e.g., service revenue). Furthermore, a correlational design can allow researchers to gain insights into trends, opinions, or attitudes of larger populations through quantitative instruments designed to collect data from a sample population (Lee, 2015; Platow et al., 2015; Quratulain & Khan, 2015). I also used regression analysis to predict the variances of these coefficients (Krotov, 2016).

In contrast, other designs, such as experimental and quasi-experimental designs are appropriate when the researcher seeks to evaluate a degree of cause and effect (Park & Park, 2016; Watson, 2015; Weller et al., 2017) and desires to facilitate the manipulation of control groups (Antoniou, Harrison, Lau, & Read, 2015; Kato & Mckinney, 2015; Thompson, Snyder, Burt, Greiner, & Luna, 2015). In this study, I did not manipulate the control variables to ascertain the effects on dependent variables. Conversely, a correlation design did not imply causation. The main objective of this study was to identify a predictive model; therefore, the experimental and quasi-experimental designs were not appropriate.

### **Population and Sampling**

Population refers to the entire set of subjects whose characteristics are of interest to the research team (Martínez-Mesa, González-Chica, Duquia, Bonamigo, & Bastos, 2016; Palinkas et al., 2015). The general population of the study included business managers and leaders working in the service industry. The target population comprised of

business managers and leaders working in the service industry in Vietnam. Eligible participants in this study met the following criteria: (a) were full-time business managers and leaders working in the service industry in Vietnam, (b) with at least 3 years experience, and (c) who spoke English.

### **Population Characteristics and Research Question Alignment**

The target population for this quantitative correlational study was appropriate for addressing its central research question. The objective of the study was to examine the relationship between CRM, employee retention, and service revenue of firms in the service industry in Vietnam. The target population comprising of business managers and leaders working in the service industry in Vietnam are in alignment with the central research question for this study because they (a) can influence CRM, (b) can retain employees, and (c) can generate service revenue.

### **Description and Justification of Sampling Method**

**Sampling methods.** In a quantitative study, the two broad categories of sampling methods are probabilistic sampling and nonprobabilistic sampling (Neuman, 2011). Probabilistic sampling is random sampling, but nonprobabilistic sampling is non-random sampling (Neuman, 2011). Quantitative researchers prefer probabilistic sampling when performing standard statistical analysis (Daniel, 2012). The researchers can generalize their findings from the sample to the study population when using probability sampling (Neuman, 2011). However, using probability sampling is more complicated, expensive, and time-consuming than nonprobabilistic sampling. Probability sampling can only occur if the researcher knows a list of all possible samples (Uprichard, 2013). Furthermore, a

potential weakness of probability sampling is that the researcher risks excluding certain cases to fit the purpose of the research (Uprichard, 2013). Thus, non-probabilistic sampling is appropriate in this study.

**Sampling technique.** In the study, I used a convenience (or availability) nonprobability sampling method. The convenience sampling technique is the most commonly used form of the nonprobability sampling method since it is easy to use, lower cost, and flexible (Paz-bailey, Noble, Salo, & Tregear, 2016). Social scientists can use a convenience sampling technique when criteria drive the selection of the sample. A researcher can select a sample based on the participants' availability by convenience nonprobability sampling (Paz-bailey et al., 2016).

**Justification for sampling techniques.** I did not use the probability sampling method because a truly randomized sample does not exist within this study. Probability sampling techniques are simply random, stratified, systematic, and cluster. In contrast, nonprobability sampling is a sampling technique based on the subjective judgment of the researcher rather than random selection (Neuman, 2011). Types of nonprobability sampling are convenience sampling, consecutive sampling, quota sampling, purposive sampling, snowball sampling. Researchers use the snowball sampling technique to find samples when they are difficult to locate. By using the snowball sampling technique, the original participants can refer new respondents to participate in the research (Neuman, 2011). However, the snowball sampling method would have been more time consuming and less efficient for meeting the needs of this study. Researchers use the quota sampling technique when they are interested in dividing the population into particular strata or

groups. Researchers use consecutive sampling technique to research over a while, analyzes the results, and then moves on to another subject. The researchers have a chance to work with many subjects if they use consecutive sampling. Researchers use a purposive sampling technique in which the samples are selected based purely on their knowledge and credibility. The convenience (or availability) nonprobability sampling technique bases on the selection of samples from the population only because they are conveniently available to the researcher. The convenience sampling technique is good to test the sample that represents its population and is the most common nonprobability sampling technique because of its speed, cost-effectiveness, and ease of the sample availability. Therefore, the convenience nonprobability sampling technique is appropriate to use in this study.

### **Sample Size Calculation**

The sample size is a required indicator to reduce the mean standard error (Jones, 2017). In this study, I used the formula provided by Tabachnick and Fidell (2007) with two predictor variables to calculate the sample size. The standard formula provided by Tabachnick and Fidell is  $50 + 8(m)$ , where the symbol  $m$  in the formula indicates the number of predictor variables in the study. To calculate the minimal sample size for this study,  $50 + 8(2) = 66$ .

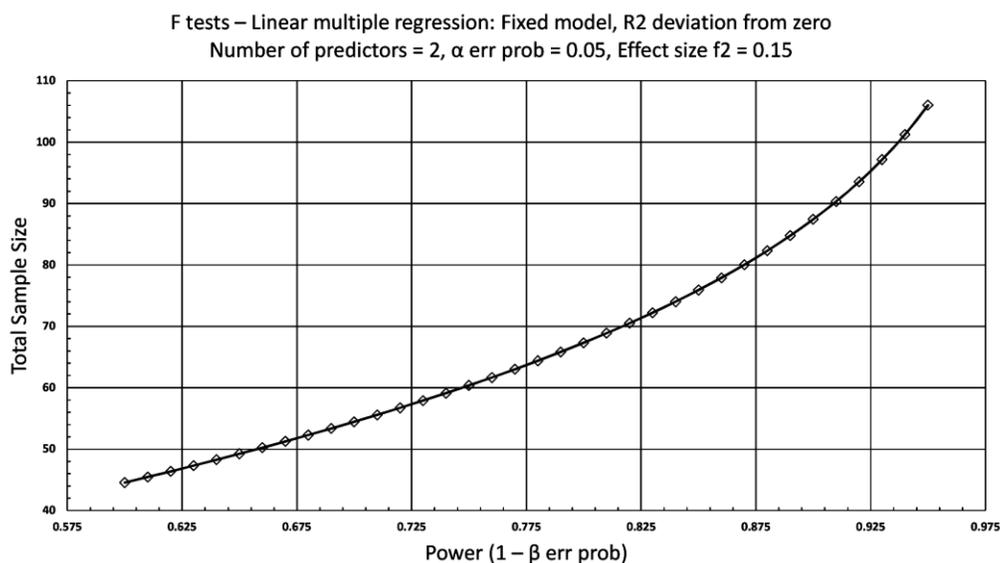


Figure 2. G\*Power graph.

On the other hand, I could use a statistical G\*Power Version 3.1 software to conduct an *a priori* sample size analysis (Faul, Erdfelder, Buchner, & Lang, 2009). I assumed a medium effect size ( $f^2 = .15$ ),  $\alpha = .05$ , and two predictor variables, then identified that a minimum required sample size was 68 participants (as shown in Figure 2) to achieve a statistical power of .80. Increasing the statistical power to .99, then the sample size was up to 146. Therefore, the sample size between 66 and 146 participants is reasonable for the study.

### Ethical Research

Ethical research involves articulation between a researcher and participants, stressing the researcher's accountability when informing participants about the various facets of the research (Saunders et al., 2015). Data access and ethics are important aspects of conducting research (Saunders et al., 2015). An international review board (IRB) committee will be responsible for examining and approving elements of the study quality

through data collection, analysis, and reports of findings, protecting the rights and dignity (Saunders et al., 2015).

### **Informed Consent Process and Incentives for Participating**

All participants in the study must voluntarily agree to provide data during the researcher's data collection process. The informed consent aims to protect participants from any research ethics issues that may arise during the data collection process (Judkins-Cohn et al., 2014). Researchers take ethical considerations to protect sensitive data and to ensure participants understand their role in the study (Abramson et al., 2018). Participants can withdraw or refuse to accept the survey invitation, to answer survey questions, or to submit the final survey questionnaire at any time without any consequences of any kind. Participants can withdraw permission to use data from their answers for survey questions at any time after completing the survey, in which case the material will be deleted. Besides, I conducted follow-up telephone calls or emailing two weeks after the initial mailing to increase the response rate.

According to Walden University IRB committee guidelines, research participants do not receive compensation or other incentives for participating. However, I would have proper behavioral actions to gratitude the participants' contributions to my research.

### **Ethical Protection of Participants**

A researcher needs to take ethical standards into account when conducting a study (Gordon, Culp, & Wolinetz, 2017). There are different ethical ways to protect participants in a study (Famenka, 2016). Definitions of risk and protection in ethical standards may vary across both cultures and time due to different economic and

sociopolitical systems, and IRBs have developed international codes of ethics as an attempt to account for cultural variations in ethical and social values (Simon, 2014). Ethical issues required to comply in research are integrity, objectivity, confidentiality, anonymity, safety, privacy, the absence of coercion, and free of harm (Saunders et al., 2015). Therefore, ethical protection of participants includes honesty, objectivity, integrity, carefulness, openness, and confidentiality to mitigate any unintentional risks in research (Bova, Nnaji, Woyah, & Duah, 2016; Willis, Slade, & Prinsloo, 2016). Ethical research enhances the credibility of the study and reduces unfair discrimination and violating an individual's privacy (Abramson et al., 2018). By obeying the relevant ethical principles, the data collection techniques will not cause harm or intrude on the privacy of participants (Saunders et al., 2015). One of the main functions of the IRB committees is to protect research participants from risks (Simon, 2014).

An IRB's approval considered ethical aspects of the researcher in the process of data collection and protection participants (Wallace & Sheldon, 2015) since ethical research should have to contain procedures to protect participants' privacy (Sparks, Collins, & Kearns, 2016). Moreover, I only started collecting and analyzing research data upon obtaining IRB approval due to the Walden University guideline. In my research, the Walden IRB approval number is 05-13-20-0721680. During the process of data collection, I provided my private contact information (e.g., mobile telephone number and Walden University email address) and suggested participants raise questions and concerns (if possible).

### **Confidentiality, Data Storage, and Agreement Documents**

Confidentiality and anonymity are critical ethical issues that a researcher must comply with in gaining access to individuals and organizations (Saunders et al., 2015). Keeping anonymous and confidential data collection encourages accurate and honest survey responses of informed consent participants (Bova et al., 2016). The data collection process did not require participants to give their names and work-place to protect their confidentiality. I sent the consent form with the IRB's approval to the participants who were invited to take part in the survey. I used a password-protected device/computer to store data in a locked file. Secured data storage will be at least five years after the date of completion and approval of the dissertation.

### **Data Collection Instruments**

This study involved measuring each variable based on how researchers have measured the variables in previous studies. There are three variables in this study. The predictor variables are CRM and employee retention. The criterion variable is service revenue. An email-based survey questionnaire instrument (Appendix A) was used to collect data for this study. The email-based survey instrumentation by the invitation email brings a high level of confidentiality, simplicity, and convenience of access to the population of the study located in Vietnam. The email-based survey instrumentation is an effective data collection method to obtain a sample from a specific population (Bashir, 2017; Hardigan, Popovici, & Carvajal, 2016). The email-based survey included a questionnaire to evaluate CRM, employee retention, and service revenue performance

from participants who are business leaders and managers of service companies in the industrial service field in Vietnam.

### **Customer Relationship Management**

CRM, one of the independent variables, describes the management and acquisition of customer relationships with a service firm. Lindgreen et al. (2006) conceptualized CRM through ten constructs. The constructs include customer strategy, customer-interaction strategy, brand strategy, value-creation strategy, culture, employees, organization, information technology, relationship-management processes, and knowledge management and learning. I modified a practical assessment tool developed by Lindgreen et al. (2006) from the existing literature to measure the CRM variable. The instrument was designed to ask for ratings of the ten constructs by 11 scale levels ranging from 0 to 10. Level 0 is a minimum score indicating an immature and non-sophisticated relationship management structure. Level 10 is a maximum score indicating a situation with a mature and well-managed relationship management program.

### **Employee Retention**

Employee retention, one of the independent variables, describes the intention to stay among employees (Kundu & Lata, 2017). I used a nine-item measure of retention practices from the existing literature developed by Agarwala (2003) for collecting data from service firms operating in the industrial service field in Vietnam. The nine items borrowed from the literature are career development programs, faster promotions, clear specification of roles and responsibilities, greater work autonomy, sharing of business information, supportive work culture, pleasant work environment, and job security

(Kundu & Gahlawat, 2016). The nine items were grouped into two groups of development and empowerment, and supportive organizational culture. The instrument was designed to ask for ratings on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Likert scales are appropriate to calculate answers as Likert scales provides superior answers as compared to any other method (Bashir, 2017). Respondents answered anonymously by giving their opinions on the five-point Likert scale concerning the extent to which their companies adopted these retention practices. The ratings of all the indicators were aggregated and averaged across the respondents to derive the index of the variable. Cronbach's alpha coefficients indicate the level of dependability for all questions of the questionnaire (Bashir, 2017). The alpha coefficient is statistically suitable for the entire factors of the questionnaire when all the variables' coefficients are greater than .70 (Bashir, 2017; Inal, Yilmaz, Demirduzen, & Gelbal, 2017).

### **Service Revenue**

Service revenue is the dependent variable in this study. Service revenue is an indicator of perceived firm performance (Kundu & Gahlawat, 2016). I borrowed one item of an increase in revenue indicator from the existing literature developed by Som (2008) for collecting data from service firms operating in the industrial service field in Vietnam. I adopted a five-point Likert scale ranging from 1 (much lower) to 5 (much higher) from existing literature to measure the revenue performance indicator (Kundu & Gahlawat, 2016). The respondents were asked to evaluate how their service firms were performing in comparison with competing companies over the past 3 years in the same industry.

### **Data Collection Technique**

The data collection technique for this study was an email-based survey. The email-based survey is more comfortable for participants and researchers to obtain different views, perspectives on the rating of the questionnaire under the electronic version, and to enhance response rate (Marleen et al., 2017). The email-based survey may promote truthful responses and ensure the survey is conducted under the circumstances of the participants' consent (Handscomb, Hall, Shorter, & Hoare, 2016). Therefore, the email-based survey is an effective and efficient data collection technique for this quantitative study (Howell, Hood, & Jayne, 2017).

### **Advantages and Disadvantages of the Data Collection Technique**

The advantages of using the email-based survey compared to a web-based survey are higher response rates, less sample bias, and no fear or distrust of high technology information (Handscomb et al., 2016; Salako, Ullrich, & Mueller, 2017). The benefits of the email-based survey may also include less difficulty in sample selection and increase the reliability of the data collection instruments (Howell et al., 2017). Participants can ask to clarify questions for any instructions not clearly understood by replying to the email invitation. Furthermore, participants can access the email-based survey anywhere and anytime with multiple smart devices (Roberts & Allen, 2015). The email-based survey method is inexpensive due to no printing, stuffing envelopes, postage (Marleen et al., 2017). The response rate is higher than other ways because it is easy to complete, and respondents can respond at their convenience (Handscomb et al., 2016; Marleen et al., 2017). However, some disadvantages of using the email-based survey are no automation,

require email addresses, and less design flexibility (Salako et al., 2017; Ward et al., 2014).

### **Data Collection Process**

The data collection process for this study involved using the Vietnam Business Directory to get contacts of service firms in the industrial service field. Then, I used the contact directory of the relevant service firms to identify contact participants. Participants may receive a verbal invitation to participate and were given the consent form that included eligibility requirements, the purpose of the study, researcher contact information, participant anonymity, and ethical parameters. Then, I sent emails to each firm's business leaders and managers to invite them to participate in the survey because they are usually the most informative people about their customer and employee management. The survey format should be brief and concise to avoid a high withdrawal rate without participants' hesitation (Middleton, Bragin, Morley, & Parker, 2014). A personalized mailing attached to the electronic survey version of the questionnaire was sent to a sample of 80 participants at their convenience that I derived from the contact lists. During the data collection process, researchers must protect the participants' anonymity and confidentiality (Mondada, 2014). Therefore, in my research, participants did not provide their names or company name. If potential respondents agreed to participate, they would indicate their consent by either replying to a completed email-based survey or signing the consent form. I conducted follow-up telephone calls two weeks after the initial mailing to increase the response rate.

Upon completion of the data collection, I manually inputted the data from the email-based survey into SPSS software for statistical testing and data manipulation. According to IRB guidelines, data will be kept secure by using a password-protected device or computer for analysis and will be stored in a locked file for five years before deleting permanently.

### **Cronbach's Alpha Tests**

Determining Cronbach's alpha of each research variable is necessary to assess, reliability of the instruments (Kundu & Lata, 2017). Reliability indicates that measurements are free from random-error variance (Meloncon, England, & Ilyasova, 2016). Random error decreases the reliability of measurement (Tang, 2015; Watson, 2015). Factor analysis and Cronbach's alpha tests can ensure internal consistency and construct validity (Dunn, Baguley, & Brunnsden, 2014). Cronbach's alpha values can range from zero to one. The higher Cronbach's alpha coefficient indicates that the scale measures are more reliable (Kundu & Gahlawat, 2016). Acceptable Cronbach's alpha ranges are .70 to .90 (Bashir, 2017; Inal et al., 2017; Kundu & Gahlawat, 2016), and the acceptable factor analysis value is .30 (Bakhla, Verma, Hembram, Praharaj, & Sinha, 2013).

Because a pilot study will assist in checking the response validity of the survey instrument (Meloncon et al., 2016), the objective of the pilot testing of the questionnaire is to filter the questionnaire for further exact reactions (Bashir, 2017). In this study, I did not conduct a pilot test.

## Data Analysis

Data analysis involves statistical tests used to answer the research question and test the hypotheses. In this study, I used the Statistical Package for the Social Science (SPSS) software Version 23 to do data analysis and utilize regression analysis to examine the relationship between CRM, employee retention, and service revenue.

RQ: What is the relationship between customer relationship management, employee retention, and service revenue?

$H_0$ : There is no statistically significant relationship between customer relationship management, employee retention, and service revenue.

$H_a$ : There is a statistically significant relationship between customer relationship management, employee retention, and service business revenue.

Multiple linear regression is a family of parametric techniques used to examine the relationship between the criterion variable and a set of predictive variables (Green & Salkind, 2017; Jelusic, 2017; Keith, 2015). Quantitative researchers use multiple regression analysis to measure the strength of prediction between two or more variables (Wiedermann & Hagmann, 2016; Yang, Liu, Tsoka, & Papageorgiou, 2016). Linear regression results indicate the numerical value of the relationship between the variables by fitting the best line (Sato-Ilic, 2017). Moreover, quantitative researchers can use regression to address missing data and to determine the degree to which particular predictor variables impact on criterion variables (Fu, Li, & Mao, 2018). The nature of this study is to determine how two predictor variables (CRM and employee retention) relate to a criterion variable (service revenue).

Consequently, this quantitative study using multiple linear regression is the most appropriate choice for data analysis. I used statistical tools like factor analysis, correlations, and regression analysis for the analysis of gathered data (Kundu & Gahlawat, 2016). I used factor analysis to reduce data by bringing out broader dimensions. I used correlations to observe the relationship among various factors and then perform a regression analysis to quantify the effects of CRM and employee retention on service revenue. I also calculated Cronbach alpha values to determine the internal consistency and reliability of the measures and the data (Kundu & Gahlawat, 2016).

Two other regression techniques, such as hierarchical regression and logistic regression, may not be appropriate for this quantitative study. Hierarchical regression refers to the process of adding or removing predictor variables from the regression model in multiple steps of smaller models in previous steps to explain a statistically significant amount of variance in the criterion variable (Akin, 2016). This regression technique is not appropriate because this study will not involve building several regression models by adding variables to a previous model at each step. Logistic regression is also a statistical method to examine the relationship between dichotomous dependent variables, binary choice, and explanatory variables (Sholagberu et al., 2019). Logistic regression uses an S-shaped function (i.e., logit function) to present the relationship to bound the value of the dependent variable between 0 and 1 only (Suriya & Niwattisaiwong, 2019).

Moreover, logistic regression is applicable when the dependent variable is categorical (Alexandrescu, Bottle, Jarman, & Aylin, 2014). In this study, service revenue

(the dependent variable) is not a categorical variable and not between 0 and 1. Therefore, logistic regression is also not appropriate for this research.

### **Cleaning, Screening, and Addressing Missing Data**

Quantitative researchers use the cleaning and screening process to convert raw data into an applicable form for statistical analysis (Birtwhistle & Williamson, 2015). Data cleaning refers to a method of removing invalid data from a dataset, whereas data screening is the process of ensuring that data are ready for further statistical analysis (John-Akinola & Nic Gabhainn, 2015; Sullivan, Edmed, Allan, Karlsson, & Smith, 2015). Data cleaning and screening are necessary because when data are unreliable, the researcher may not entirely justify data analysis results (John-Akinola & Nic Gabhainn, 2015; Sullivan et al., 2015).

The data scanning process included scanning aggregate raw data to check for any missing values. During the data analysis process, researchers need to identify missing values and correct them with statistical software (Oud & Voelkle, 2014). Possible approaches for settling with missing data are by (a) analyzing only the available data; (b) imputing the missing data with replacement values; (c) imputing the missing data and accounting for uncertainty; and (d) making assumptions about relationships between missing data and the available data (Oud & Voelkle, 2014). In this study, I addressed missing data by analyzing the available data to exclude cases pairwise using the “exclude cases analysis by analysis” option in SPSS. This study did not include the possibility of imputing missing data as a solution for missing data.

## Assumptions

Quantitative researchers need to test assumptions of using multiple regressions that include multicollinearity, outliers, linearity, normality, and homoscedasticity of residuals (Holbrook et al., 2016; Horner, Solheim, Zuiker, & Ballard, 2016). Failure to meet the assumptions could result in biased results (Jeong & Jung, 2016). Using statistical software is a common practice for testing assumptions related to multiple regression (Bermudez-Edo, Barnaghi, Moessner, 2018; Egen, Beatty, Blackley, Brown, & Wykoff, 2017; Khode et al., 2017). Bootstrapping is a powerful, computer-based method for statistical inference without relying on many assumptions to quantify the uncertainty.

**Multicollinearity.** Multicollinearity is a condition where a high correlation ( $r \geq .9$ ) exists among two predictor variables (Holbrook et al., 2016). The Pearson correlation analysis is to determine the presence of multicollinearity (Bermudez-Edo et al., 2018; Green & Salkind, 2017; Lambert, Catchen, & Vogelgesang, 2015; Power, O'Connor, Orlet Fisher, & Hughes, 2015). I calculated Pearson's Product Moment Correlation coefficient and variance inflation factor (VIF) by SPSS software to assess multicollinearity. A VIF value of 1 indicates that there is no correlation among the independent variables. VIFs between 1 and 5 suggest that there are moderate correlations, but not severe enough to warrant corrective measures. If a VIF greater than 5 represents the critical level of multicollinearity where the coefficient is poorly estimated, and the p-values are questionable. I may run two bivariate regression analyses as the corrective

option for a violation of the multicollinearity assumption (Dorestani & Aliabadi, 2017; Green & Salkind, 2017).

**Outliers.** Outliers are non-normally distributed variables that are highly distant (i.e., extremely high or extremely low) from other observations (Tedeschi & Ford, 2015). The assumption of using multiple regression is the removal of outliers to reduce statistical errors and to improve the accuracy of calculations (Glover et al., 2015; Jeong & Jung, 2016). The normal probability plot (P-P) of the regression standardized residual and the scatterplot that all points are lying in a reasonably straight diagonal line from bottom left to top right is to test the normality of the error (outliers) (Glover et al., 2015; Tedeschi & Ford, 2015). I inspected these plots to test normality.

**Linearity.** Test of linearity assumption is a visual inspection of a scatter plot of the residuals against predicted values that should show a roughly rectangular distribution with most of the scores concentrated in the center (along with the 0-point) (Green & Salkind, 2017). An assumption of linearity in using multiple regression is a form of a straight line graphically or a linear relationship between predictor and criterion variables (Reulen & Kneib, 2016; Yang, Novick, & LeBlond, 2015). I inspected these plots to assess the linearity assumption.

**Normality.** An assumption of normality means that numeric data for all variables in the study is normally distributed (Bila, 2016). Quantitative researchers use graphical tools such as the frequency distribution, histogram, and stem-and-leaf plot to visually verify normality (Abadir, Distaso, Giraitis, & Koul, 2014; Green & Salkind, 2017). I verified these plots to assess normality.

**Homoscedasticity of residuals.** Homoscedasticity assumption is that the variance of errors is constant for all independent variables (Horner et al., 2016). Homoskedasticity is tested by looking at the scatter plot of the residuals, which should show a fairly even cigar shape along its length (Grabemann, Mette, Zimmermann, Wiltfang, & Kis, 2014; Green & Salkind, 2017). (Green & Salkind, 2017). I checked these plots to assess homoscedasticity.

If the assumptions of multiple regression are met, there should be no relationship between the predicted and residual values. Then, the residuals would be randomly distributed in a band clustered around the horizontal line through 0. If any indications of a violation of an assumption for conducting multiple regression in the data analysis, conclusions will indicate misrepresentations for probable relationships among the study's variables (Ferreira, Figueroa-zúñiga, & de Castro, 2015; Kuder, 2015). Some scholars recommended appropriate actions used to correct violations of any of the test's assumptions as conducting a multiple regression analysis are either (a) removing contributing observation values; (b) using a nonlinear transformation by taking the square root of the observation values; (c) developing a new composite observation value; or (d) using the existing sample data to create bootstrap samples (Gerdin et al., 2016). In this study, I may use bootstrapping samples to combat any possible influence of assumption violations, and 95% confidence intervals based on the bootstrap samples will be reported where appropriate. A bootstrap method is a nonparametric approach to statistical inference that substitutes computation for complex data, small sample size, and non-normal distributional assumptions (Gerdin et al., 2016).

## Inferential Results Interpretation

Quantitative researchers need to interpret inferential results from multiple linear regression (Almutairi & Ludington-Hoe, 2016). The required parameters including  $R^2$ ,  $F$  value,  $B$ ,  $SE B$ ,  $\beta$ ,  $t$ , and  $sig. (p)$  are computed during the regression analysis. Also, appropriate bootstrap 95% confidence intervals would be reported if there were any violations of the assumptions.

$R^2$  (a squared multiple correlation) is a numerical parameter interpreting the percentage of criterion variance accounted for by the linear combination of the predictors (Green & Salkind, 2017).  $R^2$  ranges from 0 to 1, where higher values indicate more variance (Karatepe & Olugbade, 2017). A  $R^2$  value of 0 means there is no linear relationship between the predictors and the criterion variables. A  $R^2$  value of 1 implies that the linear combination of the predictor variables perfectly predicts the criterion variable (Green & Salkind, 2017).

Quantitative researchers use the  $F$  value to interpret the overall significance of regression analysis to make predictions for a criterion variable (Green & Salkind, 2017). The  $F$  value is typically a positive number equal to 1 or greater (Green & Salkind, 2017). The higher the  $F$  score, the higher the predictability of the regression analysis on the dependent variable.

The unstandardized coefficient is the estimated change in the criterion variable corresponding to a one-unit change in a predictor variable when all other predictor variables are held constant (Green & Salkind, 2017). Moreover, the unstandardized coefficient can be a positive or negative number (Green & Salkind, 2017).

The standard error of an unstandardized coefficient is always positive and is a measure of how precisely the model estimates the coefficient's unknown value (Ali Shah & Beh, 2016). The smaller the standard error, the more precise the estimate will be (Green & Salkind, 2017).

A standardized beta coefficient compares the predictability strength of each predictor variable to the criterion variable (Ali Shah & Beh, 2016). The higher the absolute value of the standardized beta coefficient, the stronger predictability will be (Green & Salkind, 2017).

Quantitative researchers use the  $t$  value to evaluate the significance of the unstandardized beta ( $B$ ) weights (Karatepe & Olugbade, 2017). The  $t$  value is the unstandardized coefficient value (of a predictor variable), divided by the standard error of the unstandardized coefficient values (Buttner & Lowe, 2017).

Statisticians use the  $p$ -value to test statistical hypotheses and determine the significance of numerical data (Ali Shah & Beh, 2016). The  $p$ -value ranges between 0 and 1 (Bonenberger, Aikins, Akweongo, & Wyss, 2014). A small  $p$ -value, typically less than or equal to .05, indicates strong evidence against the null hypothesis (Green & Salkind, 2017).

### **Study Validity**

Data collection from different sources improves the reliability and validity of data (Saunders et al. , 2015; Yin 2018). The use of varied data sources and a detailed description of all the information available ensure that researchers can confirm the findings of the study while reducing the potential bias (Maria, 2018; Nagata, Wu & Kim,

2017). Reliability and validity are two key criteria for the measurement of the research quality (Saunders et al., 2015). Validity and reliability reflect the quality of a quantitative study (Saunders et al., 2015).

Validity refers to the appropriateness of the measures, the accuracy of the outcomes analysis, the relative truth of inference, and generalizability of the findings (Berger, 2015; Borntrager et al., 2015; Heale & Twycross, 2015; Morse, 2015; Saunders et al., 2015). Measurement validity, design validity, and inferential validity are three general types of validity (Heale & Twycross, 2015). Measurement validity describes how well the instrument measures what it was intended to measure. Design validity includes both internal and external validity that are both applicable to the study. External validity describes how readers can extend the study findings to other groups or situations and a larger population (Stuart, Bradshaw, & Leaf, 2015). Conversely, internal validity describes the credibility or truth-value of the study (Berger, 2015). The internal study validity helps researchers to understand the extent to which the cause-and-effect relationships due to the yields of data (Borntrager et al., 2015; Dalal & Carter, 2015).

### **Threats to Statistical Validity and Mitigation Strategies**

The utilization of the SPSS statistical software to analyze data minimizes threats to the external validity of the instrument used in the quantitative correlational study. The use of SPSS for data analysis results in the minimization of the four factors jeopardizing external validity. Threats to internal validity arise from experimental procedures, treatments, or the experience of participants that may influence the researcher's ability to make a correct inference (Heale & Twycross, 2015). Causation influences internal

validity (Peters & Pereira, 2017). Statistical conclusion validity is to make an accurate assessment of the strength of the relationship between the criterion and predictor variables (Moquin & Wakefield, 2016). A Type I error is a rejection of the null hypothesis when the null hypothesis is correct (Lawman, Van-Horn, Wilson, & Pate, 2015). Therefore, this study involved statistical conclusion validity and the possibility of a Type I error. Quantitative researchers diminish threats to statistical conclusion validity by selecting the appropriate level of significance ( $\alpha$ -value) for their study (Lawman et al., 2015). An appropriate  $\alpha$ -value helps to minimize the risk of a Type I error. A Type I error occurs when a researcher rejects the null hypothesis when they should have accepted it (Green & Salkind, 2017).

**Assumptions.** Normality, outliers, and linearity are three critical assumptions for the statistical conclusion validity of multiple regression analyses. The normality assumption means that numeric data for all variables in the study is normally distributed (Abadir et al., 2014; Bila, 2016). Quantitative researchers can use the frequency distribution, histogram, and stem-and-leaf plot to visually check normality (Egen et al., 2017; Khode et al., 2017). I used the Normal Probability Plot (P-P) of the regression standardized residual and the scatterplot produced as part of the regression analysis to assess normality in this study.

Outliers are non-normally distributed variables that are highly skewed or kurtotic, meaning that they are distant (extremely high or extremely low) from other observations (Glover et al., 2015). Some researchers can also perform a visual inspection using scatterplots to detect outliers and ensure that dispersion and variability of data has a

constant range for all independent variables (Grabemann et al., 2014). I used Normal Probability Plot (P-P) of the regression standardized residual and the scatterplot produced as part of the regression analysis to assess outliers in this study.

Multiple regression also involves an assumption of linearity (forming a straight line graphically or a linear relationship) between predictor and criterion variables (Reulen & Kneib, 2016; Yang et al., 2015). A visual inspection of plotted data points (scatterplot) is an appropriate test for linearity (Nguyen, Schwartz, & Dockery, 2014). I used the Normal Probability Plot (P-P) of the regression standardized residual and the scatterplot produced as part of the regression analysis to assess linearity in this study.

**Reliability.** Reliability refers to dependability, consistency, and repeatability of a study's data collection, interpretation, and analysis (Morse, 2015; Saunders et al., 2015). Threats that may reduce the reliability are participant error, participant bias, researcher error, and researcher bias; and threats that may reduce the validity are past or recent events, testing, instrumentation, mortality, maturation, and ambiguity about casual direction (Saunders et al., 2015). The goal of reliability is to minimize the errors and biases in a study (Yin, 2018). Reliability is an indication of the quality of the measurement and is a precondition for validity (Yin, 2018). Researchers typically consider results reliable if they can obtain the same results repeatedly. Threats to statistical conclusion validity, such as reliability of the instrument and statistical data interpretations, can affect the Type I error rate (Lawman et al., 2015). The instrument validity is important because it infers that the instrument measures what a researcher intends to measure without other influencing circumstances (Lawman et al., 2015). If the

instrument is not the right tool to measure the constructs, then the instrument cannot support the hypothesis.

Furthermore, changes to instruments may cause inconsistent scores, which is a threat to statistical conclusion validity. Statistical regression may be a threat to statistical conclusion validity when extreme scores or deviant scores from the mean increasing the probability of a test result error (Barbé & Kimble, 2018; Walser, 2014). Mitigation for threats to statistical conclusion validity in this study included the use of an established research instrument and the identification of extreme scores in the data analysis of results.

Researchers should consider and use as many approaches as possible to overcome threats to statistical conclusion validity (Barbé & Kimble, 2018). Social scientists can mitigate threats to statistical conclusion validity with consistent data collection, documentation analysis, and interpretation (Moquin & Wakefield, 2016). The consistent use of uniform research instruments under similar conditions lessen the instrumentation threat to statistical conclusion validity. Researchers could reduce statistical regression threats with the use of participants that have similar characteristics in a sample (Walser, 2014).

**Sample size.** Social scientists measure external validity to determine if results apply to larger populations (Bisbee & Larson, 2017). However, if the sample size does not represent the target population adequately, selection bias is a major threat to external validity (Bisbee & Larson, 2017; Hitchcock, Kratochwill, & Chezan, 2015). Social scientists employing external validity should not generalize the findings from a biased sample to a larger population (Mathes, Buehn, Prengel, & Pieper, 2018; Stuart et al.,

2015). Therefore, the more representative the sample is, the higher the confidence in generalizing from the sample to the population. Since this study involved a sample taken from the larger population of managers and leaders in the service industry in Vietnam, generalizations involving this population may be reliable.

### **Transition and Summary**

Business leaders and managers should know how to develop customer relationships and retain capable employees for increases in service revenue to overcome economic downturns. However, some service leaders and managers in the industrial service field in Vietnam do not know the relationship between CRM, employee retention, and service revenue. The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. The independent variables were CRM and employee retention. The dependent variable was service revenue. The service-profit chain theory developed by Heskett et al. (1994) is the appropriate lens to investigate the link between employees, the level of customer service relationship, and service revenue performance. This study involved relevant assumptions, limitations, and delimitations to the finite scope of the research.

Both sample size and population are vital elements for this study. The data collection process involved collecting numerical data for CRM, employee retention, and service revenue, to a minimum of 66 participants. The data collection process ensured confidentiality and participant anonymity so that that the research is valid and complies with established ethical parameters. Multiple linear regression was used as a statistical technique to assess the predictable relationship between two independent variables and

the dependent variable. This study incorporated the SPSS software to do the research data analysis.

As the first two sections of this study provided proper background information and methodology details, in Section 3, I incorporate the final stages of the research process. In Section 3, I detail the statistical findings from the study. Moreover, in Section 3, I address whether the statistical analysis of the quantitative data can indicate the acceptance or rejection of the null hypothesis.

### Section 3: Application to Professional Practice and Implications for Change

#### **Introduction**

The purpose of this quantitative correlational study was to examine the relationship between CRM, employee retention, and service revenue. The independent variables were CRM and employee retention. The dependent variable was service revenue. I used SPSS, Version 24, to test the relationships between these variables. The model as a whole was able to significantly predict service revenue,  $F(2, 72) = 7.608, p = .001, R^2_{adj} = .152, R^2 = .174$ . The  $R^2_{adj}$  (.152) value indicated that approximately 15% of variations in service revenue were accounted for by the linear combination of the predictor variables (e.g., CRM and employee retention). Within the final model, CRM was not a statistically significant predictor ( $t = .603, p = .548$ ) and employee retention was a statistically significant predictor ( $t = 3.877, p < .001$ ).

The final predictive equation was:

$$\text{Service Revenue} = 1.366 + .031(\text{CRM}) + .591(\text{ER})$$

#### **Presentation of the Findings**

I commenced data analysis for this study by checking the reliability of the data and testing the assumptions (as mentioned in Section 2). I proceeded to calculate the descriptive statistics and inferential results. In this section, I discuss reliability and tests of assumptions, present descriptive statistics, present inferential statistics, interpret findings in alignment with the theoretical framework, and conclude with a concise summary.

## Reliability

The most common method for estimating the internal consistency reliability of a questionnaire survey is a Cronbach's alpha coefficient that is a function of the average intercorrelations of items and the number of items in the scale (Gholami, Saman, Sharif, & Zakuan, 2015). Cronbach's alphas for the subscales, both CRM and employee retention, were .784 and .612, respectively. Reliability coefficients of the scales more than .60 are considered acceptable for research aims (Gholami et al., 2015). However, the internal consistency criterion was fulfilled for the corrected item-total correlations  $> .30$ , and Cronbach's alpha  $> .70$  was considered satisfactory (Apay, Gurol, Özdemir, & Uslu, 2020; Bellier, Chaffanjon, Krupat, Francois, & Labarère, 2020). The corrected item-total correlations were evaluated to see how much each item correlates with the overall questionnaire score. Correlations are less than  $r = .30$  indicate that the item may not belong on the scale (Gholami et al., 2015).

The Cronbach's alpha score would increase higher if items with its correlation  $r < .30$  were removed from the questionnaire. I considered removing items that its correlation  $r < .30$  and the value of Cronbach's alpha if item deleted is greater than the current Cronbach's alpha. Hence, four items - culture, organization, brand strategy, and relationship management process - of the CRM variable were removed; the alpha value was .820. The Cronbach's alpha reliability coefficient of the employee retention variable was .73 because three items were removed - faster promotion, clear scope of roles and responsibilities, and competitive salary. A Cronbach's alpha higher than .70 is reasonably acceptable (Bashir, 2017; Bellier et al., 2020; Daraee & Kasraee, 2016; Ghazian,

Hossaini, & Farsijani, 2016; Inal et al., 2017). The coefficient alpha of CRM and employee retention were .82 and 0.73, respectively, and suggested that the scale scores are reasonably reliable for respondents like those in this study.

### **Tests of Assumptions**

I evaluated the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals.

**Multicollinearity.** I calculated Pearson's product-moment correlation coefficient and variance inflation factor (VIF) by SPSS software to assess multicollinearity existing between the independent variables. A high correlation ( $r \geq .8$ ) among two predictor variables and *VIF* value greater than 1 indicate that multicollinearity exists (Bermudez-Edo et al., 2018; Green & Salkind, 2017). In this study, the coefficients among the predictor variables were  $-.045$ . Moreover, the *VIF* value of 1.00 indicated there was no correlation among the independent variables. Therefore, the assumption of multicollinearity was not violated. Table 2 and Table 3 present the correlational coefficients and *VIF*.

Table 2

#### *Correlation Coefficients Among Study Predictor Variables*

Variable	CRM	Employee retention
CRM	1	-.045
Employee retention	-.045	1

*Note.* N = 75

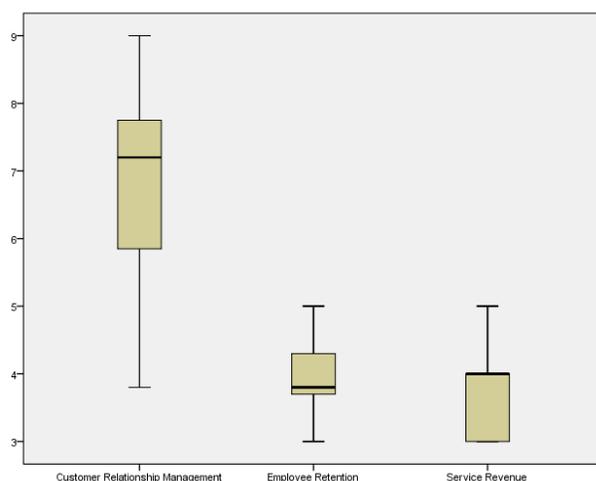
Table 3

*Coefficients VIF*

Model		Unstandardized coefficients		Standardized coefficients	<i>t</i>	<i>Sig.</i>	Collinearity statistics	
		<i>B</i>	<i>SE</i>	<i>Beta</i>			<i>Tolerance</i>	<i>VIF</i>
1	(Constant)	1.366	.720		1.898	.062		
	CRM	.031	.051	.065	.603	.548	.998	1.002
	ER	.591	.152	.416	3.877	.000	.998	1.002

*Note.* Dependent variable: Service revenue.

**Outliers, normality, linearity, homoscedasticity, and independence of residuals.** I used SPSS Version 24 to derive the boxplot from detecting the presence of outliers for the variables. Any data that do not fall within the box are referred to as outliers. Any figure asterisked outside the box shows there are significant outliers in the data. The boxplot, as shown in Figure 3 for the variables CRM, employee retention, and service revenue, supported that the assumption of outliers was not significantly violated.



*Figure 3.* Boxplot of CRM, employee retention, and service revenue.

I tested the assumptions of normality, linearity, homoscedasticity, and independence of residuals by examining the normal probability plot (P-P) of the

regression standardized residual and the scatterplot of the standardized residuals. The results for the distribution of data were fairly laid around the fit line, as shown in Figure 4. Therefore, the probability plot (P-P) examination indicated there were no significant violations of these assumptions.

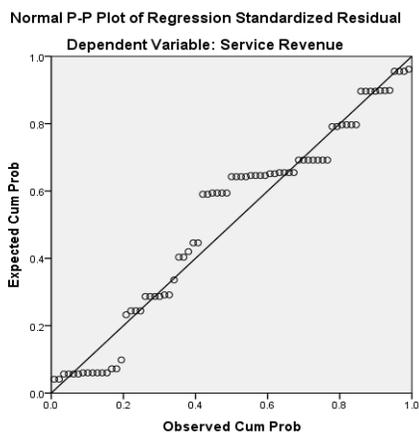


Figure 4. Normal probability plot (P-P) of the regression standardized residuals.

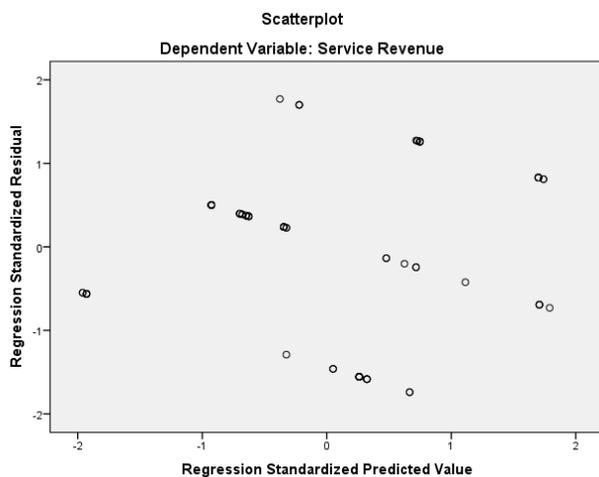
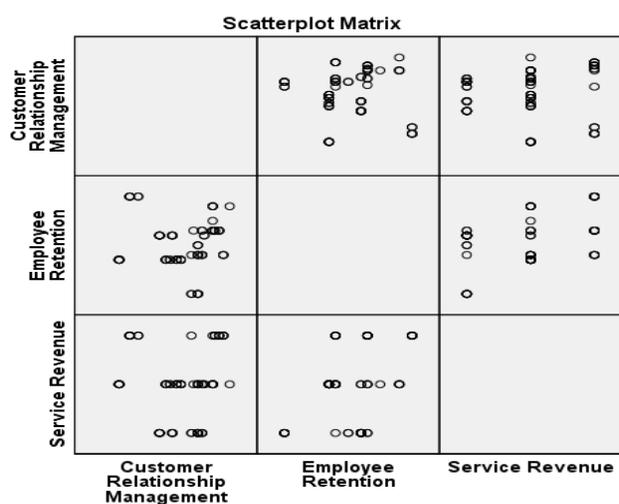


Figure 5. Scatterplot of the standardized residuals.

A visual inspection of the scatterplot of the residuals (Figure 5 and Figure 6) showed a roughly rectangular shape, with most of the scores concentrated in the center (along with the 0-point). However, the scatterplot of the residuals did not present a clear

pattern in the dots, as shown in Figure 5, because the sample size was small. Thus, I calculated the Durbin-Watson statistic test to assess the independence of residuals assumption. The Durbin-Watson value of 1.58, between 1.5 and 2.5, indicated the presence of the independence of residuals. Therefore, the assumptions of normality, linearity, and homoscedasticity were evaluated with no significant violations noted.



*Figure 6.* Scatterplot matrix between the variables.

There are no significant indications of the existing violations of the assumptions; thus, I did not need to use bootstrapping as a corrective option for outlier, normality, linearity, homoscedasticity, and independence of residuals assumption violations.

### **Descriptive Statistics**

The total volume of the sample was 80 participants. I received 63 respondents (79%). I conducted follow-up telephone calls 2 weeks after the initial mailing and obtained 15 additional respondents (19%). Finally, I received 78 questionnaires returned from the participants. The target minimum sample size was 66 participants. Three records were eliminated from the analyses due to incomplete data, resulting in 75 records for

analysis. Descriptive statistics of the predictor and criterion variables are presented in Table 4. Also, descriptive statistics for the demographic variables are shown in Table 5.

Table 4

*Means and Standard Deviations for Study Variables*

Variable	<i>M</i>	<i>SD</i>
CRM	6.71	1.494
Employee retention	4.02	.502
Service revenue	3.95	.715

*Note.* N = 75.

Table 5

*Descriptive Statistics for Demographic Variables (N = 75)*

Variable		n	%
Gender	Female	31	41
	Male	44	59
	Total	75	100
Age range (in years)	20–30	7	9
	31–40	18	25
	41–50	31	41
	51–60	19	25
	Total	75	100
No_Employees	51–100	6	8
	101–150	6	8
	151–200	6	8
	> 201	57	76
	Total	75	100

## Inferential Results

I used standard multiple linear regression,  $\alpha = .05$  (two-tailed), to examine the efficacy of CRM and employee retention in predicting service revenue. The independent variables were CRM and employee retention. The dependent variable was service revenue. The null hypothesis was that there is no relationship between CRM, employee retention, and service revenue in the service industry in Vietnam. The alternative hypothesis was that there is a relationship between CRM, employee retention, and service revenue in the service industry in Vietnam. Preliminary analyses were conducted to assess whether the assumptions of multicollinearity, outliers, linearity, normality, homoscedasticity, and independence of residuals were met. All apparent and possible assumptions with no significant violations were noted. The model as a whole was able to significantly predict service revenue,  $F(2, 72) = 7.608, p = .001, R^2_{adj} = .152, R^2 = .174$ . The  $R^2_{adj}$  (.152) value indicated that approximately 15% of variations in service revenue were accounted for by the linear combination of the predictor variables (e.g., CRM and employee retention). Both a squared multiple correlation ( $R^2$ ) and an adjusted squared multiple correlation ( $R^2_{adj}$ ) assess how well the linear combination of predictor variables in the regression analysis predicts the criterion variable (Green & Salkind, 2017). The  $R^2_{adj}$  is always smaller than  $R^2$ . Adding more predictors to a regression model tends to increase the  $R^2$ . The  $R^2_{adj}$  is used to determine how reliable the correlation is and how much is determined by the addition of predictors.

Within the final model, CRM was not a statistically significant predictor ( $\beta = .065, p = .548$ ) and employee retention was a statistically significant predictor ( $\beta = .416, p < .001$ ). The final predictive equation was:

$$\text{Service Revenue} = 1.366 + .031(\text{CRM}) + .591(\text{ER})$$

Table 6

*Regression Analysis Summary<sup>b</sup>*

Mode	R	Adjusted R square	Std. error of the estimate	Change statistics			Durbin-Watson
				R square change	F change	Sig. F change	
1	.418 <sup>a</sup>	.174	.152	.174	7.608	.001	1.577

a. Predictors: (Constant), Employee retention, CRM

b. Dependent variable: Service revenue

Table 7

*Regression Analysis Summary for Predictor Variables<sup>a</sup>*

Model		Unstandardized coefficients		Standardized coefficients		Collinearity statistics		
		B	Std. error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.366	.720		1.898	.062		
	CRM	.031	.051	.065	.603	.548	.998	1.002
	Employee retention	.591	.152	.416	3.877	.000	.998	1.002

a. Dependent variable: Service revenue

**Predictive relationships to the criterion variable.** The positive slope for employee retention (.591), as a main predictor of service revenue, indicated there was a .591 increase in service revenue for each additional increase in employee retention. Since CRM was not a statistically significant predictor ( $\beta = .065, t = .603, p = .548$ ), the

unstandardized coefficient  $B$  for CRM is infinitesimal. The positive infinitesimal  $B$  value for CRM indicated that each additional increase in CRM was not significantly to increase a predictor of service revenue ( $B = .031$ ). In other words, service revenue (e.g., criterion variable) tended to increase as employee retention increased.

**Analysis summary.** The purpose of this study was to examine the relationship between CRM, employee retention, and service revenue. I used standard multiple linear regression to examine the ability of CRM and employee retention to predict service revenue. Assumptions relating to the multiple regression analysis were assessed, and no significant violations were noted. The model as a whole was able to significantly predict service revenue  $F(2, 72) = 7.608, p = .001, R^2 = .174, R^2_{adj} = .152$ . Within the final model, CRM was not a statistically significant predictor ( $\beta = .065, t = .603, p = .548$ ) and employee retention was a statistically significant predictor ( $\beta = .416, t = 3.877, p < .001$ ). The conclusion from this analysis is that service revenue is significantly dependent on employee retention.

**Theoretical discussion of findings.** Heskett et al. (1994) developed the SPC theory based on the premise that improvement of internal service quality leads to enhancing service value that the service company used it as benefits to acquire new customers and to increase the level of customer satisfaction and loyalty. Employees are most likely to steer the internal service quality to create service values increasing service revenues (Heskett et al., 1994). The findings are in alignment with the significant relationship between employee retention and service revenue in this study. Employee retention was a statistically significant predictor ( $\beta = .416, t = 3.877, p < .001$ ). Employee

retention requires a compelling place to work to enhance internal service quality. Service quality is a key driver of customer satisfaction (Lomendra et al., 2019; Omar et al., 2016). Retained employees are more satisfied and loyal to foster their customers leading to enhancing customer satisfaction (Ling et al., 2018; Tomic et al., 2018). According to Bermúdez-González et al. (2016) and Dhanpat et al. (2018), more experienced employees are more focused on customer satisfaction than new employees. They, therefore, are more likely to increase their firms' service revenues. Customer satisfaction leads to increases in service revenues because it increases customer loyalty and repurchase intentions (Agnihotri et al., 2019; Hogleve et al., 2017; Wolter et al., 2019). Since the loyal customers are reluctant to change to similar service providers, the service firm may reduce its service costs and marketing expenditures from increasing customer loyalty (Hogleve et al., 2017). Karim et al. (2016) also stated that five facets contributing to long-run service revenue are legal compliance with business, maintaining customer relationship, retention to motivate employee's loyalty, propagation of good policies to customers and employees, and enhancing reputation. Employees in high-contact service systems in CRM are vital to providing high-quality service that, in turn, drives customer satisfaction and retention (Iman & Norizan, 2019).

Consistent with the findings in this study, other researchers have found employee retention to be predictive of service revenue. Kundu and Gahlawat (2016) found a significant positive relationship between the development and empowerment factors of employee retention and perceived firm performance ( $\beta = .400, p \leq 0.001$ ), between the supportive organizational culture factor of employee retention and perceived firm

performance ( $\beta = .118, p \leq 0.05$ ), and between the overall employee retention practices and perceived firm performance ( $\beta = .475, p \leq 0.001$ ). Employee transitions lead to 13.2%–17.6% losses in service revenues (Shi et al., 2017).

A high degree of employee retention indicates employees' positive experience with work and high motivation to seek sales opportunities to increase revenues (Bibi et al., 2018; Hogreve et al., 2017). More experienced service employees generate more revenues by selling new products (Hogreve et al., 2017). A high level of employee retention reflects high employee loyalty to be associated with higher service revenues (Hogreve et al., 2017). Employee retention is used to reduce employee turnover intention because employee turnover reduces business performance (Decha, 2018; Hussein & Goel, 2016; Spencer et al., 2016). New hires are less effective than the existing service employee in mitigating losses of service revenues. Service managers need to trade off the benefits and opportunity costs of reassigning customers to various service employees (Shi et al., 2017).

In the SPC model, enhancement of employee retention brings satisfaction for employees that will work more productively to increase revenue growth (Chicu et al., 2016; Heskett et al., 1994). Employee retention leads to improving service quality and, subsequently, customer satisfaction relying on CRM (Chicu et al., 2016). Retention of talented employees (e. g., experienced or senior employees) is to retain knowledge and skills gained from hired talents that play a complementary factor to support current capabilities for expanding new service businesses (Bibi, Ahmad, & Majid, 2018). Besides, skillful training and development are vital to foster employee retention (Aruna, 2018).

Consequently, such complementary knowledge and skills of employees may lead to an increase in more revenue and sustainability (Hee-Jung & Ji-Young, 2018).

Under pressures of economic downturns, a service firm should maintain high levels of employee retention to reduce employee replacement costs and to improve customer satisfaction (Dhanpat, Modau, Lugisani, MaboJane, & Phiri, 2018; Jones & Ragothaman, 2016). Many scholars explained that instead of a short-lived revenue bonus, hours reduction could help preserve work relations and expected long-term wealth (Lepage-Saucier, 2016). Several academic researchers indicated that employee departure leads to lower productivity and business revenue but increases overhead cost and benefits competitors (Bibi et al., 2018; Dhanpat et al., 2018; Jindal, Shaikh, & Shashank, 2017; Kundu & Lata, 2017; Tomic et al., 2018). Employees are also customers (Cogin et al., 2018; Rust et al., 1996), then customer satisfaction measurement can be used to measure employee satisfaction and retention (Hussein & Goel, 2016; Wolter et al., 2019). Employee retention affects customer satisfaction via customer service delivery (Conway & Briner, 2015).

The model as a whole of this study was able to significantly predict service revenue,  $F(2, 72) = 7.608, p = .001, R^2 = .174, R^2_{adj} = .152$ . However, employee retention was statistically significant ( $\beta = .416, t = 3.877, p < .001$ ) accounting for a higher contribution to the whole model than CRM ( $\beta = .065, t = .603, p = .548$ ). In the review of CRM literature, the SPC theoretical model links between the CRM dimensions and service companies' performance (Cain et al., 2018; Chicu et al., 2016; Conway & Briner, 2015; Heskett et al., 1994). Previous researchers found CRM to be predictive of

financial performance (Cain et al., 2018; Dalla et al., 2018; Hult et al., 2017).

Technology, the capability of the organization, and orientation of customers affect the significant relationship between CRM and firm performance ( $\beta = .19, t = 3.29, p < 0.001$ ) (Soltani et al., 2018). Companies implemented CRM to increase business revenue and stimulated 30% customer growth, to improve 29% customer loyalty, and 17% customer acquisition (Dalla et al., 2018). Likewise, Al-Weshah et al. (2019) indicated that there is a statistically significant impact of CRM on service performance ( $t = 10.985, p < .05$ ). According to the SPC theory, retention of experienced employees drives a compelling place to purchase by CRM creating external service value (Kim, 2014). However, in this study, CRM did not significantly predict service revenue ( $\beta = .065, t = .603, p = .548$ ). There may be three possible interpretations of the insignificant relationship between CRM and service revenue.

The first reason for the unexpected result in CRM is the impact of time lags on the effects of using CRM to generate service revenue. The revenues are generated by a customer in a definite time, but a customer's behavior changes over time. CRM is to enhance customer satisfaction to increase customer repurchases (Borchardt et al., 2018; Vaeztehrani et al., 2015). Terpstra, Kuijlen, and Sijtsma (2012) indicated that a logarithmic regression is a better model used to describe the relationship between customer satisfaction and revenue. There were no effects of the time lag used in this study; therefore, the analysis did not show the full impact of CRM on revenue.

The second reason is the relative score used to measure CRM. CRM is measured by rating on 11 scale levels, but service revenue is rated by a five-point Likert scale. As a

result, there was a significant difference in standard deviation between CRM (1.494) and service revenue (.715), while the standard deviation of employee retention is only .502. Hence, it was possibly leading to an insignificant linear relationship between CRM and service revenue.

The third explanation is the selection of revenue as a criterion variable. In the literature, previous researchers (Arli et al., 2018; Dalla et al., 2018; Foltean et al., 2019; Kundu & Gahlawat, 2016; Saboo et al., 2017; Vaeztehrani et al., 2015) most likely used profit, stakeholder values (e.g., stock price, P/E ratio), return assets, and cash flow as more appropriate financial indicators to measure the financial performance in the SPC model. Service revenues may be positively associated with future service costs. Also, Terpstra et al. (2012) stated that using revenue may lead to conflicting results. Satisfied customers may be willing to repurchase in the future. The time lags impact on CRM to generate financial performance. Therefore, using a profitability performance such as profits may have led to significant results.

### **Applications to Professional Practice**

There are several management approaches to survive service companies over the recession period. In practice, most business leaders focus on fostering their relationship with customers and keep experienced employee retention to secure service revenue generated from their existing customers and acquiring new customers. Retrenching financial budgets by reducing marketing expenses and wage benefits and compensations of employees for short-term survival may create business traps for service growth in the long-term (Carriger, 2016; Carriger, 2017; Mann & Byun, 2017; Notta & Vlachveib,

2015). Also, Liu and Li's (2017) findings aligned with the SPC model by Heskett et al. (1994) demonstrated that firms with lower productivity are more likely to suffer a continuous decline in market share and are more probable to exit the market place due to their insufficient capacity to react with the high competition. Retaining competent employees leads to higher customer satisfaction levels and increases market share. Industrial service firm leaders in the same field may use the findings in this study to improve their current profitability and growth in the future. Therefore, business leaders should have to expense significantly budgeting of resource allocations for CRM and HRM for employee retention to enhance productivity that has linked with the firm survival (Liu & Li, 2017).

In the highly competitive market, customer satisfaction on service quality is a driven key for service firms' survival over time (Omar et al., 2016). This research contributes to both practitioners and business leaders, also, with regards to the management implications of this study by improving the understanding of the CRM successful implementation. The interrelationship between customer orientation and organizational capability, information technology, and customer knowledge management has been recognized as one of the key factors for CRM success that directly influence the organization's performance (Soltani et al., 2018). Business leaders could avoid making mistakes in budgeting for short-term profitability, and instead of increasing investment in the competent employees and fostering their customer relationships contributing to yielding the growth of business performance to generate long-term shareholder value.

In this study, the model as a whole indicated the linear combination of CRM and employee retention significantly predict some of the variation in service revenue ( $F = 7.608, p = .001$ ). Satisfying existing customers promote a positive experience for customers, increasing the potential for referrals, and it is a way to diversify the portfolio of services so that the service firm's leaders can acquire new customers to gain more revenue sustainably (Ghazian et al., 2016; Mariana & Jan, 2018). CRM not only enhances the satisfaction of existing customers but also attracts new customers (Al-Weshah et al., 2019). Business leaders use CRM to improve service quality increasing customer satisfaction and retention that they can maintain their existing market share and reach out to new potential market segments by acquiring new customers, decrease general and administrative expenses.

Also, employee retention impacts positively on service quality leading to enhancing customer satisfaction via customer service delivery (Conway & Briner, 2015; Tomic et al., 2018). Employee retention reduces employee turnover intention that their business leaders can keep in connection with the existing customer accounts, and save costs related to employee replacement (Decha, 2018; Hussein & Goel, 2016; Shi et al., 2017; Spencer et al., 2016). These activities result in increasing revenue and improving operating cash flow (Jacob & Vernon, 2017; Li et al., 2018). The SPC theory indicates that the improvement of internal service quality leads to enhance service value as a result of service revenue growth (Heskett et al., 1994). It may be more efficient for business leaders to trade-off the expenditures for fostering customer relationships and retaining employees and the gained value of service revenue to survive their firms.

The effect size for the model in this study is approximately 15%. This finding indicated that 85% of the variations in service revenue were accounted for by other factors than the linear combination of the predictor variables. Although significant, the results of this study showed that CRM and employee retention jointly offer only minor predictability for service revenue.

### **Implications for Social Change**

The knowledge gained from the findings in this study could have implications for social change among customers, employees, and tax government authorities in society. If business leaders, based on the significance of the findings in this study, steer their firms through severe economic downturns to improve financial performance, thereby increasing employment and the tax base for government authorities. Through the research findings, business leaders may retain employees who have developed core service capabilities essential for employee engagement, organizational survival, and growth. Employee retention enhance network construction, employment, customer satisfaction, organizational commitment, and corporate reputation during the downturn (Carriger, 2017; Hee-jung & Ji-Young, 2018; Kawai, 2015; Schulz & Johann, 2018). High employee retention leads to employee satisfaction that provides the foundation for more enjoyable customer experience (Hussein & Goel, 2016). Increased revenue means more jobs and income for members of the local community. Improving firms' financial performance will increase employment, the tax base for local government, and the engagement of stakeholders to create a positive social impact (Dyer et al., 2016). Employment and customer satisfaction are useful ways to create positive social impacts

(Dyer et al., 2016). Business leaders may benefit from improved customer relationships, training costs saving for well-trained and skilled employees to acquire new customers.

### **Recommendations for Action**

The findings of this study indicated that the linear combination of CRM and employee retention significantly predict some of the variation in service revenue ( $F = 7.608, p = .001$ ); there are several recommendations for action. Firstly, service companies can identify the most profitable customers by dividing them according to their customer lifetime value and differentiating them based on their expectations to enhance the role of CRM. Secondly, different internal and external sources such as personnel working in sales forces, customer services, marketing research, post-sales services, and procurement need to participate in the implementation of CRM effectively and successfully.

Thirdly, industrial service companies should invest in their human and intellectual capital by retaining employees. Human resource management should develop and conduct training programs and policies for employees' development and empowerment. The factors of career development and empowerment support employees thinking more creatively, and therefore generate opportunities for enhancing the innovation performance in a service company (Kundu & Gahlawat, 2016). Employee motivation with different types of incentives can enable them to provide better services to customers (Al-Weshah et al., 2019). Hence, employers need to identify the proper retention strategies carefully and methodically to attain higher performance. The literature on employee retention indicated that attracting new employees is costlier than promoting employees (Bibi et al., 2018; Dhanpat et al., 2018).

Fourthly, financial managers will need to coordinate with business-related managers to allocate budget for the CRM implementation associated with the target of service revenue growth in the short-run and the long-run as well. Moreover, with 85% of the variations in service revenue accounted for by other factors than the linear combination of CRM and employee retention, there are several other recommendations to increase service revenue not directly related to customers and employees.

Service companies can implement diversification strategies to improve revenue and profitability growth and to avoid business risks over time (Ye et al., 2018). Either marketing strategy for differentiation or diversification may create competitive advantages that reinforce revenue creation and improve the sustainable shareholder value (Dyer et al., 2016). Furthermore, human resources diversification with multiple skills can increase creativity and innovation performance (Filbeck, Foster, Preece, & Zhao, 2017). In the field of service businesses, Martin-Rios and Parga-Dans (2016) indicated that innovation diversification is negatively associated with organizational failure. Service diversification yields significant revenue and reduces merger and acquisition activities (Eckardt & Skaggs, 2018). However, the service firms need to retain well-trained employees who are competent to ensure service quality in the progress of conducting the diversification strategy (Eckardt & Skaggs, 2018). Subsequently, business managers should combine service diversification with employee retention strategies (Ye et al., 2018). Based on the findings in this study, the regression analysis model showed a positive slope for employee retention (.591), as a predictor of service revenue, indicated there was a .591 increase in service revenue for each additional increase in employee

retention. Employee retention accounted for significant contributions to the rise in service revenue.

These study findings could be disseminated in the form of a summary to business management organizations, human resources organizations, and chambers of commerce within the industrial service industry in Vietnam. These types of organizations contain some of the key stakeholders, human resource managers, and business managers and leaders that will most benefit from the study findings. The study will be published in the ProQuest dissertation database and other scholarly journals to ensure access by scholars, practitioners, business professionals. I can share knowledge of the findings from this study with stakeholders via conferences, seminars, and training workshops.

### **Recommendations for Further Research**

There are some limitations in this study; therefore, recommendations for future research are possible. Firstly, the sample size selected for this study is small to examine the relationship between CRM, employee retention, and service revenue. Future research could replicate the study and increase the sample size. The Cronbach's Alpha reliability is significant with the larger sample size (Bashir, 2017). Secondly, data collection relied solely on the experience and perceptions of managers and leaders who answered the questionnaire survey. Future research models could expand the research participants to enlarge sample size, including business, marketing, and HR experts, to avoid depending on the leadership style and culture of the managers and leaders only. Thirdly, the data collection came only from service companies in Vietnam. Future research may be generalizable to larger businesses or different businesses such as banking, tourism, and

manufacturing industries in other geographies. Fourthly, service profitability is also a variable in the SPC theory model. Hence, future research could replicate the study using service profit instead of revenue. Fifthly, based on the results in this study, with 85% of the variations in service revenue accounted for by other factors than the linear combination of CRM and employee retention, there are several other recommendations to increase service revenue. Service companies could utilize diversification strategies to improve revenue and profitability growth over time. Diversification is a strategy for financial growth and to avoid business risks (Ye et al., 2018). Furthermore, the diversification of human resources with multiple skills can increase creativity and innovation performance (Filbeck et al., 2017). A recommendation for further research is to examine the relationship between service diversification, employee retention, and service revenue (or profit).

### **Reflections**

The DBA doctoral study process is challenging, enlightening, and rewarding with my expectation and effort. I underestimated the amount of time and effort that would go into the research process. I have tried at the best effort to overcome several personal challenges as academic writing at the doctoral level. However, the DBA journey has been one of the most rewarding learning experiences of my education and career.

My background is engineering, and I graduated Master of finance in 2009 in Switzerland. I have been working as a service business leader. The challenges in business motivated me to complete the DBA Doctoral Study process regarding how the interaction between customers and employees to create revenue growth over a difficult time. While

completing the DBA Doctoral Study process, I have learned skills that make me valuable as a business consultant or scholar-practitioner.

The results of the study met my expectations based on the theoretical framework. However, I thought that the effect size CRM and employee retention on service revenue would be greater than 15%. The effect size for this study indicated the possibility that service revenue may increase by other factors rather than CRM and employee retention. Based on this study's findings, I see that service companies should allocate an appropriate budget for compensation to retain well-trained employees so that the companies have enough competitiveness to survive over the difficult time in a service business.

### **Conclusion**

The study findings indicated that there jointly CRM and employee retention significantly predict some of the variation in service revenue in the industrial service field in Vietnam. Since there are no significant violations of assumptions for the linear regression analysis, there was no use of bootstrapping to correct the assumption violations. Based on the findings in this study, business leaders should invest in their human and intellectual capital by retaining employees. Since 85% of the variations for service revenue in this study were accounted for by other factors than the linear combination of predictor variables, business leaders should also focus on factors that enhance service financial performance. Some of these factors could service diversification, organizational commitment, and service quality.

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## Appendix A: Survey Questions

**The Relationship Between Customer Relationship Management, Employee  
Retention, and Revenue**

**Section 1: Background Information**

What is your gender?

- Male
- Female

How many employees are employed by your organization

- Less than 50
- 51 – 100
- 101 – 150
- 151 – 200
- Greater than 201

What age group are you belong?

- 20 - 30
- 31 – 40
- 41 – 50
- 51 - 60

**Section 2: Customer Relationship Management (CRM)**

The following ten elements of CRM are customer strategy, customer-interaction strategy, brand strategy, value-creation strategy, culture, people, organization, information technology, relationship-management processes, and knowledge management and learning.

Please read each statement carefully and check one response by rating on 11 scale levels ranging from 0 to 10. Level 0 is a minimum score indicating an immature and non-sophisticated relationship management structure. Level 10 is a maximum score indicating a situation with a mature and well-managed relationship management program.

**Element 1 - Customer Strategy**

Level	
0	We sell our goods and services to potential customers who are willing to buy.
1	We have customer strategies to select customers.
2	We define customer strategies that are mainly focused on maintaining traditional customers and acquiring new customers.
3	We base our customer strategies primarily on the needs of prospective and existing customers.
4	We analyze the lifetime value of individual customers to understand their importance to our organization.
5	We rank customers by their lifetime value to define customer segments.
6	We set smart business targets for each customer segment.
7	We build and develop relationships with our most valuable customers.
8	We retain our most valuable customers by understanding loyalty drivers and by introducing appropriate value-adding propositions.
9	We meet the specific needs of our customers, and our value propositions regularly exceed their expectations.
10	We develop excellent customer strategies, which create customer trust and commitment, and drive the growth in our business revenue.

**Element 2 - Customer-Interaction Strategy**

Level	
0	We provide main contact points so our customers can ask for information.
1	We make the list of customers with contact points.
2	We analyze and understand customer-touch points in terms of their differences, functionalities, importance, costs, and the business processes behind.
3	We define a customer-interaction strategy, which is aligned with our customer strategy.
4	We base the customer-interaction strategy primarily on our customers' needs.
5	We minimize our customers' inconveniences by developing interaction channels.
6	We have service employees whose responsibility is to capture customer information provided by each customer interaction.
7	We track the effectiveness of our interaction channel(s) and use customer feedback for improvements.
8	We coordinate and manage across all levels and functional departments in the organization with each single customer interaction.
9	We regularly review our customer-interaction strategy.
10	We add value through our customer-interaction strategy.

**Element 3 - Brand Strategy**

Level	
0	We describe the brand positioning for the goods and services that our business units are providing.
1	We have a basic understanding, within our business units, of our brand image and the attractiveness of our goods relative to that of direct competitors.
2	We describe the brand positioning for our goods and services.
3	We have a good understanding, within our business unit, of our brand image among a defined customer-target group and the attractiveness of our goods relative to that of direct competitors.
4	We understand and apply brand positioning.
5	We translate the brand positioning into the brand promise to the customer and other targeted stakeholder groups.
6	We develop all communications and perform regular checks relating to consistency.
7	We regularly measure customers' awareness of our brand.
8	We formulate a plan in our business unit to close the gap between actual and targeted brand image.
9	We make the brand positioning an integral part of our business plan.
10	We have achieved maximum, benchmarked awareness of our brand promise.

**Element 4 - Value-Creation Strategy**

Level	
0	We sell goods and services that meet customers' requirements.
1	We base our competition for market share, mainly on the quality and price of our goods and services.
2	We focus on selling the features of our goods and related services.
3	We are aware that selling goods and related services is not enough to win valuable customers.
4	We use market researches and value models for gaining more insight into customer requirements.
5	We identify added-value opportunities by understanding our customers' specific needs and preferences.
6	We can provide the best offering in the marketplace by excelling in specific value-adding activities.
7	We formulate value propositions that meet specific customers' requirements.
8	We develop comprehensive value-adding propositions that our customers trust.
9	We dominate the market by improving our value-adding activities continuously.
10	We are acknowledged as the leading company and for being unique in the market.

**Element 5 - Culture**

Level	
0	We request our service business department to focus on customer retention.
1	We are paying more attention to goods services, customers, and competitors.
2	We are aware of the necessity of a customer-focused mindset, as well as an organizational change for building relationships with our most valuable customers.
3	We, act in a more customer-centric way.
4	We delegate clear responsibility and authority to leaders in our organization to realize a customer-focused culture.
5	We focus primarily on customers and long-term relationships rather than on short-term transactions.
6	We adapt the way of working in our organization: we now anticipate rather than react to our customers' requests and demands.
7	We constantly try to meet customers' expectations by delivering appropriate goods and services and by solving their problems quickly.
8	We focus on creating value-adding opportunities for our customers.
9	We constantly think from the customer's point of view to improve business revenue.
10	We instill a customer-focused culture in our organization.

**Element 6 - Employees**

Level	
0	We have a high employee turnover in our organization.
1	We understand the essence of employee satisfaction and commitment, which is correlated with customer retention.
2	We identify and describe different roles in our organization, including competencies and accountabilities, which affect the customer's experience.
3	We select and recruit employees with the right skills and orientation by job descriptions.
4	We reward our employees based on their performance and productivity.
5	We ensure that our employees understand their roles and possess the basic skills and knowledge to identify our customers' needs and preferences that are of value to them.
6	We regularly assess the skills of our employees' to identify competency gaps.
7	We require each employee to take whatever action appropriate to ensure the satisfaction of our valuable customers.
8	We increase the retention of our skillful employees.
9	We ensure that our employees have sound market sensing, an ability to understand our customers, and a capability to establish, maintain, and enhance customer relationships by gaining their trust and respect.
10	We are acknowledged by our customers as the most careful, knowledgeable, and skillful professionals to trade with.

**Element 7 - Organization**

Level	
0	We see the functional departments in our organization as autonomous units.
1	We manage customer relationships only through the sales department.
2	We understand how the organizational structure is designed, and how this structure affects the performance of our customer management and other activities.
3	We introduce several contacts between the selling and buying parties to replace the traditional relationship between sales and purchasing departments.
4	We manage the relationship with our customers through different departments in our organization.
5	We ensure that functional departments collaborate to meet our customers' needs and wants.
6	We delegate the coordination and management of customer relations to middle and senior management.
7	We adapt the organizational structure by setting up cross-functional teams.
8	We make sure that our employees are strong team players in cross-functional teams.
9	We are a flexible organization that supports customer-oriented decision making and have the flexibility to anticipate and respond to our customers' value-adding requests.
10	We manage consistently across different organizational levels and functional departments of our customer relationships.

**Element 8 - Information Technology**

Level	
0	We usually work with stand-alone systems, for example, database marketing.
1	We set up separate information-technology systems in our organization to hold important information about our customers, such as transaction information.
2	We determine which data is required to support customer management processes.
3	We design and build a common data store such as a data warehouse or data mart.
4	We define in detail terms in databases to avoid differences in meanings by departments or user groups.
5	We avoid data fragmentation problems by consolidating all customer information collected from various customer-contact channels: face-to-face such as sales representatives, fax, mail, telephone, e-mail, and websites to allow e-technology applications such as online billing, order entry, and configuration.
6	We integrate front and back-office systems. Front-office applications such as portals pull information from the back-office system such as enterprise resource planning systems.
7	We realize the integration of customer-contact channels.
8	We develop insights into our customers by analyzing customer and market data extracted from our databases.
9	We use innovative technologies, including, for example, mobile devices, to update customer data in real-time to provide each system and channel with the most recent customer information.
10	We achieve an integrated, cross-functional, multiple-channel (contact channel) view of our customers.

**Element 9 - Relationship-Management Processes**

Level	
0	We identify relationship-management processes such as contact planning, complaint management, customer segmentation, order processing, and service management.
1	We map and document relationship-management processes for each stage of the customer lifecycle.
2	We ensure that we fully understand present processes before implementing improvements to these processes.
3	We determine the standards and criteria of measurement for each relationship-management process.
4	We capture customer feedback regarding goods and services by conducting customer satisfaction surveys to identify and eliminate process failures.
5	We implement tools or framework for continuous improvement of relationship-management processes.
6	We measure the performance of channels and campaigns of value-adding projects.
7	We realize strong process improvement by eliminating activities that do not create an output, which is valued by the customer, consolidating other partially redundant customer activities, and learning from each other within our organization how to improve customer activities.
8	We review and manage in a routine structure the performance of our relationship-management processes.
9	We make customer-relationship process improvements a closed-loop system in our quality management.
10	We have reached maximum relationship-management processes.

**Element 10 - Knowledge Management and Learning**

Level	
0	We are ignorant about the relevance of knowledge management.
1	We understand the role and importance of knowledge management in terms of developing business strategies, goods, and services.
2	We identify sources that generate data, information, and knowledge. However, there is no structured way to manage and leverage knowledge.
3	We map the process of knowledge creation; the knowledge is about business markets, business processes, customers, and competitors.
4	We define procedures to instill knowledge into our organization.
5	We ensure that our employees increase their knowledge through continuous learning.
6	We facilitate knowledge management using information technology systems.
7	We apply and re-use knowledge to accelerate learning processes.
8	We create a sustainable competitive advantage by creating knowledge assets, which contribute to improvements in competences within our organization.
9	We selectively benchmark organizations and participate in forums for the development of new knowledge.
10	We base our strategies on knowledge creation and management.

**Section 3: Employee Retention**

The following nine statements are about how you feel at work. Please read each statement carefully and check one response by rating on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

1 – Strongly disagree 2 – Disagree 3 – Neutral 4 – Agree 5 – Strongly agree

<b>Employee Retention</b>					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>G1 development and empowerment</b>	1	2	3	4	5
Planning career development programs for the satisfaction of employees	1	2	3	4	5
Faster promotions to the employees	1	2	3	4	5
Providing competitive salaries to the employees	1	2	3	4	5
Clear scope of roles and responsibilities	1	2	3	4	5
Greater work autonomy is provided	1	2	3	4	5
Sharing of business strategies and orientation with employees	1	2	3	4	5
<b>G2 supportive organizational culture</b>					
Existence of culture that makes employees stay in the company	1	2	3	4	5
A pleasant working sphere is developed to retain the employees	1	2	3	4	5
Commitment to provide job security	1	2	3	4	5

**Section 4: Service Revenue**

Please check one response by rating a five-point Likert scale ranging from 1 (much lower) to 5 (much higher) to answer the question: How your service firm was performing in comparison with competing companies over the past three years in the same industry.

1 – Much lower 2 - Lower 3 - The same 4 – Higher 5 – Much higher

Appendix B: Permission to Use The Survey Instrument

---

**From:** neha gahlawat <[REDACTED]>  
**Sent:** Sunday, February 9, 2020 3:28 PM  
**To:** Bui Van <[REDACTED]>  
**Subject:** Re: Permission to use the survey instrument for research of Employee Retention and Revenue

Dear Bui T Van

You can use the survey instrument for your study. Good Luck with your research. Let me know if any other help required.

Thanks & Regards,

Dr. Neha Gahlawat  
Assistant Professor

Department of HR

ICFAI Business School

Hyderabad, India

Sent from Yahoo Mail for iPhone

On Sunday, February 9, 2020, 8:23 AM, Bui Van <[REDACTED]> wrote:  
Dear Prof. Dr. Gahlawat,

I am a doctoral student from Walden University writing my dissertation titled "The relationship between customer relationship management, employee retention, and revenue" under the direction of my dissertation committee chaired by Dr. Jim Glenn.

I would like to request your permission to use an existing survey instrument (for employee intention) in my research study. I would like to use and print your survey instrument under the following conditions:

- I will use this survey instrument only for my research study
- I will not sell or use it with any compensated or curriculum development activities.
- I will not include a copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate by replying to me. Your response will be considered as an electronic signature.

Thank you very much.

Sincerely,

Bui T. Van

---

**From:** Ashok SOM <[REDACTED]>

**Sent:** Friday, February 14, 2020 3:11 PM

**To:** Bui Van <[REDACTED]>

**Subject:** Re: Permission to use the survey instrument for research of Firm Performance

Hello!

Yes you have permission.

Kind regards

Ashok Som

Professor of Global Strategy

ESSEC Business School

Contact: [www.ashoksom.com](http://www.ashoksom.com)

On 14 Feb 2020, at 04:47, Bui Van <[REDACTED]> wrote:

Dr. Som,

I hope this email find you well. Please help me to give your permission.

Thanks so much

Regards,

Bui Van

---

**From:** Bui Van

**Sent:** Sunday, February 9, 2020 11:05 PM

To: som [REDACTED] >

**Subject:** Permission to use the survey instrument for research of Firm Performance

Dear Prof. Dr. Ashok Som,

I am a doctoral student from Walden University writing my dissertation titled "The relationship between customer relationship management, employee retention, and revenue" under the direction of my dissertation committee chaired by Dr. Jim Glenn.

I would like to request your permission to use an existing survey instrument (for employee intention) in my research study. I would like to use and print your survey instrument under the following conditions:

- I will use this survey instrument only for my research study
- I will not sell or use it with any compensated or curriculum development activities.
- I will not include a copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate by replying to me. Your response will be considered as an electronic signature.

Thank you very much.

Sincerely,  
Bui T. Van

---

Permission to use the survey instrument for research of Employee Retention and Revenue

Dear Prof. Dr. Kundu,

I am a doctoral student from Walden University writing my dissertation titled "The relationship between customer relationship management, employee retention, and revenue" under the direction of my dissertation committee chaired by Dr. Jim Glenn.

I would like to request your permission to use an existing survey instrument (for employee intention and revenue) in my research study. I would like to use and print your survey instrument under the following conditions:

I will use this survey instrument only for my research study

I will not sell or use it with any compensated or curriculum development activities.

I will not include a copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate by replying to me. Your response will be considered as an electronic signature.

Thank you very much.

Sincerely,  
Bui T. Van

---

Yes, you can use the same by acknowledging the authors.

Thanks

Subhash C Kundu

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**From:** Adam Lindgreen <[REDACTED]>  
**Sent:** Wednesday, February 12, 2020 9:19 PM  
**To:** Bui Van <[REDACTED]>  
**Subject:** RE: Permission to use the survey instrument for research of Customer Relationship Management

That is fine.  
Regards, Adam

**From:** Bui Van <[REDACTED]>  
**Sent:** 9. February 2020 16:40  
**To:** Adam Lindgreen <[REDACTED]>  
**Subject:** Permission to use the survey instrument for research of Customer Relationship Management

Dear Prof. Dr. Adam Lindgreen,

I am a doctoral student from Walden University writing my dissertation titled "The relationship between customer relationship management, employee retention, and revenue" under the direction of my dissertation committee chaired by Dr. Jim Glenn.

I would like to request your permission to use an existing survey instrument (for customer relationship management) in my research study. I would like to use and print your survey instrument under the following conditions:

- I will use this survey instrument only for my research study
- I will not sell or use it with any compensated or curriculum development activities.
- I will not include a copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate by replying to me. Your response will be considered as an electronic signature.

Thank you very much.

Sincerely,  
Bui T. Van