

# The Relationship Between Nonfinancial Measurements and Company Performance - Based on the Level of Customer Satisfaction

Qi Wu<sup>1,\*</sup>, Yingqi Pan<sup>2</sup>, Peicong Zhou<sup>3</sup>, Chengcheng Li<sup>4</sup>

<sup>1</sup> College of Business & Public Management, Wenzhou-Kean University, Wenzhou, China

<sup>2</sup> Division of Business and Management, Beijing Normal University- Hong Kong Baptist University United International College, Zhuhai, China

<sup>3</sup> School of accounting, Hubei University of Economics, Wuhan, China

<sup>4</sup> Grier School, Pennsylvania, United States

\* Corresponding author. Email: Wuqi062@wku.edu.cn

## ABSTRACT

In this paper, the authors analyze the relationship between customer satisfaction and company performance and mainly talk about the major influence of customer satisfaction. This research examines company performance into financial and nonfinancial parts and provides a way to measure the company performance, which is called the balanced scorecard. The results indicate that customer satisfaction has four impacts on the company that includes four items, (1) increase customer loyalty, (2) complement accounting measures, (3) improve profitability, and (4) predict future financial performance. There are four parts that the company can do to increase the level of customer satisfaction. Improve the price-quality ratio, the efficiency of the process, customer service quality, and employee satisfaction.

**Keywords:** Customer satisfaction, Company performance, Customer loyalty, Accounting measures, Financial performance

## 1. INTRODUCTION

An increasing number of companies now are using nonfinancial measurements when analyzing the performance of the company. Nonfinancial measures can work as a complement to a company's short-term financial figures [1]. Recent studies also show that customer satisfaction is important as an indicator of company performance from different industries. For example, in most of the financial sectors such as banks, they aim to hold a long-term connection with customers to gain a lower rate of customer turnover and to maintain higher customer loyalty [2]. This research aims to examine some possible impacts that customer satisfaction will bring to the company. This study is in a position to inform financial analysts of an analysis of this potential relationship and help them to make a better prediction with the company. Managers can also gain some relevant information to make the right decision. It is also helpful for some potential investors to estimate the performance of the company and invest money.

This research is organized into four parts. In Section 2 literature review part, this paper focuses on two kinds of company performance in terms of financial and nonfinancial. The categories and impacts of customer satisfaction are also discussed in this part. Section 3 also contains some advice that could be useful for increasing customer satisfaction and company performance. Finally, the conclusion and opinions for future research are considered in Section 4.

## 2. LITERATURE REVIEW

### 2.1. COMPANY PERFORMANCE

According to Batchimeg, company performance is a measurement of a company's achievement over a certain period [3.] It is referred to different assessments that the company uses to measure its operation from inside and outside parts. People may divide company performance into two parts: financial performance and nonfinancial performance.

Financial performance is related to the performance of some financial activities on investment, assets, or other categories on the financial statements. It estimates the financial condition of a company in a period, and the measures in financial performance are in monetary terms. Such financial performance helps the viewer to have a deeper understanding of the industry's production, profitability, liquidity, fixed assets, and fund flow. For example, investors may concern about the finance of the company, such as ROE, ROA, to make further investment. Therefore, it is important to know the company's financial performance.

Nonfinancial performance refers to activities in non-monetary terms. Its measures can be either qualitative or quantitative. For example, a company can design open questions to know the customer's attitude. They can also use the customer satisfaction index to measure the level of the service. Nonfinancial measures that connect with the customer,

company's internal process, learning, and growth provide a broader view about the company's developments, which are important indicators when evaluating a company [4]. It can evaluate the quality of products or services, then estimate the technology and skills of a company. It gives investors and stakeholders the information of a company that financial performance measures cannot provide, thus helps them to understand the whole company or industry deeply.

Authors also come up with a way to measure company performance, which is the balanced scorecard raised by Kaplan and Nordon. They explained its concept and function of BSC, which is a set of measurement methods that can enable senior executives to have a quick and comprehensive understanding of the company's business [5]. Besides, it also includes financial measures that tell the company the result of actions that are already taken. Scholars believed that the BSC supplements the financial measures through nonfinancial measures such as customer satisfaction, internal processes and organizational innovation and improvement activities, which are the driving factors for future financial performance [5]. Thus, the BSC can illustrate the link between financial performance and nonfinancial measures like customer satisfaction.

## **2.2. CUSTOMER SATISFACTION**

Many scholars have expressed their views on customer satisfaction. Oliver and Kotler have similar views. They think that customer satisfaction is the emotion that is resulting from consumers when they compare their expectations of products or services with their real experience.

## **2.3. MAJOR IMPACTS OF CUSTOMER SATISFACTION**

### *2.3.1. Good customer satisfaction can increase customer loyalty and attract potential customers, then increase sales of the company.*

Customer satisfaction is strongly related to customer loyalty, which can influence the number of customers who use the products of the company. Yi finds that the level of customer satisfaction has great impact on purchase intentions and post purchase attitude of customers. The author believes that customer loyalty is a kind of behavior, which includes three parts, continuing purchase, increasing relationship, or the willingness of recommendation [6].

The customer has a big possibility to share their idea about the service with their friends or relatives. Either it is a good comment or bad comment will directly impact the business. When customer satisfaction is high, more customers tend to make a second purchase, and those customers are called repeat customers. If customer satisfaction is high, the company could keep a lower rate of customer turnover, which means customer loyalty is high. Customers can decide

where they will spend their money according to their satisfaction with the performance of the company. Thus, the past customers will continue to buy the company's products, instead of switching to other companies to buy the substitutes of the product. Finally, a high rate of satisfaction may further make an increase in the company's sales.

Good customer satisfaction can also attract potential customers to buy the company's products. For example, when such a potential customer finds the product has a high degree of satisfaction, they will be more likely to buy the product. In addition, old customers can recommend the product to others.

Customer satisfaction is also essential in the service company. Innis and La examine the relationship between customer satisfaction, customer loyalty, and market share in the logistics and physical distribution industry. Researchers find that customer service is one of the key elements of logistics delivery. It will significantly influence customer satisfaction and further impact the possibility of the purchase and repurchase intentions of the customers [7]. The company needs to focus on the service that they provide to the customer so that they can retain the current customers and appeal to new customers. Therefore, high customer satisfaction can increase customer loyalty and attract potential customers.

### *2.3.2. Complement accounting measures and help the company make relevant decisions.*

Accounting data plays an essential role in measuring a company's performance and help the managers making decisions. Traditionally, people usually focus on the 10-k or other financial measurements to compare revenues, expenses, and other financial data. However, according to Behn and Riley, there is a lack of linkage between the progress of the company's operating activities and its financial performance [8]. Companies' financial results are more rely on the internal data from the company, but these data do not provide a piece of information about the firm's performance from outside. Ittner and Larcker's study reflected a phenomenon that companies use nonfinancial measures to analyze financial outcomes will gain a higher return on their assets equity than those who did not use[9]. Thus, the company needs to acquire external evaluations to help itself to understand the overall performance.

It has been tested that customer satisfaction as a nonfinancial measurement can supplement the flaw of financial measurements. Ittner and Larcker, in their study, showed that nonfinancial measurements like customer loyalty could fill gaps that financial accounting left, and it can also provide instructions for managers to make a plan [9]. Moreover, during the study from Stivers, Covin, Hall, and Smalt, the results showed that the customer service factor is considered as the most important measure, and these customer service factors contain customer satisfaction, customer service, and the quality of product and service [10]. Banker, Potter, and Srinivasan in their study, showed that customer satisfaction in the hotel industry is positively correlated

with financial data occurring in the same period [1]. Rates of people's willingness to go back or times of customer complaints could provide some additional information, which may not include in the past financial reports.

In a different industry such as retail chain, Banker and Mashruwala analyze whether nonfinancial measurements such as customer satisfaction could be useful in decision making [11]. The authors use more than 800 stores in a large department store chain to see stores' annual operating data. During the study, Banker and Mashruwala studied that customer satisfaction measures could predict store closures and further help managers making a decision. In the retail industry, customers can directly interact with the employees in the company rather than indirectly use their products to feel the performance of the company. However, the location of different stores will also impact the result of customer satisfaction. Stores located with higher intensity of competition will predict future profits more precisely because more customers could better help data becoming convince. Therefore, the level of customer satisfaction can explain the company's performance rating, and managers can make a plan based on these data.

### *2.3.3. Higher-level customer satisfaction will enjoy higher profitability.*

Nowadays, more and more companies pay attention to customer satisfaction. For example, from the survey of the top executives in U.S. firms and Canadian companies, of the 253 firms interviewed, 235 (92.9%) rated customer satisfaction as highly necessary [10]. On the other hand, profitability is an essential indicator of companies' financial performance. Many studies found that there is a positive relationship between customer satisfaction and profitability. In other words, higher-level customer satisfaction will enjoy higher profitability. Moreover, this relationship is applied to the majority of profitability measures, such as return on investment, net revenues, and return on equity.

Some studies use ROE (return on equity) to reflect profitability, and authors find that there is a significant positive relationship between ROE and customer satisfaction [12]. Besides, in Kyung-A Sun's research, the author employs a linear regression model to predict profitability [13]. In the model, the author uses return on assets (net income divided by total assets), return on equity (net income is divided by total equity), and profit margin (net income is divided by sales) as the dependent variable. At the same time, the author also uses the American customer satisfaction index (ACSI) as the independent variable. The result of the analyses finds that ACSI is significant in predicting the profitability for ROE [13]. Thus, there is a significant positive relationship between profitability and customer satisfaction. In Anderson and Fornell's study, authors use the data in the Swedish Customer Satisfaction Barometer to set up a hypothesis testing model between economic return and customer satisfaction [14]. Anderson and Fornell conducted an empirical analysis of the value generated by each unit in-

crease in customer satisfaction, and the results are quite impressive. Suppose an enterprise with a five-year strategic plan has an annual increase in the customer satisfaction index of one percentage point, the current accumulated profit will increase by 16.66%. If the average assets of these enterprises are 600 million U.S. dollars, it is equivalent to the accumulated profit Run increased to the U.S. \$7.48 million, equivalent to an 11.5% increase in the current ROI. Using the data from a U.S. Fortune 100 company, Paul Williams conducted a longitudinal analysis, and the result of his analysis shows that customer satisfaction and total revenue have a positive correlation. There is also a positive relationship between satisfaction and EPS, but the relationship is much weaker [15].

As for how customer satisfaction affects profitability, different scholars have different views. Fei Pan's team divides ROE into return on sales times the turnover of shareholder's equity and they respectively checks the correlation between return on sales and customer satisfaction, turnover of shareholders' equity, and customer satisfaction. They find that customer satisfaction is more likely to improve profitability through increasing unit of profit margins [12]. While in Paul William's opinion, cost fluctuates severely from time to time, and this may lead to inaccurate interpretation of the statistics [15]. In other words, customer satisfaction is more likely to affect revenue and sales than cost. On the other hand, Fornell thinks that satisfied customers will return and buy more goods. At the same time, they will tell other people about their experience, whatever it is good or not. High customer satisfaction means more people are satisfied with the company's products, and more potential customers are generated. As a result, the company's operating profit will rise [16].

### *2.3.4. Customer satisfaction can better reflect future financial performance.*

Customer satisfaction can be an excellent indicator to measure financial situation. First, financial performance is a measure to help investors know how well the company is operated and generates revenue. Previous studies have shown that there is a close correlation between nonfinancial measures and financial performance. Nonfinancial measures have more advantages than financial measures. For example, financial measures tend to focus on the past and fail to reflect contemporary value-creating behaviors. However, some nonfinancial indicators, for instance customer satisfaction and internal business performance, are based on the company's particular view of the world, meaning that they have a strong tendency to focus on the future [5]. In terms of future cost and future income, Wiersma thought that the nonfinancial indicators provided more incremental information compared with the hysteretic financial measures [17]. Thus, nonfinancial measures have a more advanced impact on financial performance.

Customer satisfaction has received attention as one of the nonfinancial measures. Ittner and Lacker studied the corre-

lation between nonfinancial measures and financial situation. Researchers took customer satisfaction as an example to analyze whether this nonfinancial measure can become a leading indicator of financial performance [18]. Authors found that when estimating financial condition and customer purchase behavior, customer satisfaction could provide some supports [18]. In addition, the authors also found that customer satisfaction can be economically correlated with the share market, meaning that customer satisfaction measures can provide the stock market incremental information about a company's future financial prospects [18]. Banker, Potter, and Srinivasan choose a hotel chain that directly manages 20 hotels for access to its senior managers and comes up with two criteria (likelihood of return and customer complaint) to measure customer satisfaction. They also use revenue of Toll-free lines and hotel profit to indicate a company's financial performance. They found that customer satisfaction is considerably related with future financial performance and include extra information not reflected in the previous financial measures [1].

### **3. ADVICE FOR IMPROVING CUSTOMER SATISFACTION**

#### ***3.1. IMPROVING PRICE-QUALITY RATIO***

Customer satisfaction can be referred as a reflection that customer shows when experiencing the difference between the quality of their expectation and actual. Keisidou, Sarigiannidis, Maditinos and Thalassinou believe people are more concerned than ever about price fairness and price-quality ratio [2]. If a company provides goods that have a high price, the customer will think that they can gain a better value of services. However, if the value of the quality of products and service is not equal to the money customer paid or there is a massive gap between these two, the company will lose many loyal customers. Thus, the decreasing operating income will show in the financial statement and further influence the company's market share.

Keisidou, Sarigiannidis, Maditinos and Thalassinou also believe lower costs and prices of goods may show that the quality of goods is low. If the bank provides such goods and services, the prestige and good name of the bank may be influenced [2]. Therefore, the price of the products needs to be considered a lot. The company needs to improve the quality of products or services that they provide at a specific price point. Improving the price-quality ratio can involve one or two steps. For example, the company can improve the quality of the product but keep the price initially, or they can keep the quality of the products and find a way to reduce the cost to gain room for the price reduction. Thus, with a good price-quality ratio, a kind word of mouth can attract potential consumers, and the company can maintain a higher level of customer retention.

#### ***3.2. IMPROVING THE EFFICIENCY OF THE PROCESS***

Continuous process improvement is a good way to improve customer satisfaction, which means increasing the efficiency of product manufacturing and service delivery. A typical example of this is the study conducted by Paul Williams. The author uses a Fortune 100 firm in the USA as his sample. The firm began a Six Sigma process improvement initiative, and their primary purpose is to reduce waste and costs of its process. They find that their customer satisfaction increased while improving the efficiency of their process. In Paul Williams's opinion, the increase in share price and earnings per share is due to the decrease in cost [15]. There is a positive relationship between profitability (share price and earning per share) and customer satisfaction, so when the process costs decreased, customer satisfaction increased.

#### ***3.3. IMPROVE CUSTOMER SERVICE QUALITY***

Customer service refers to the convenience provided by the company to the purchasers of the products. The aim if it is to enable customers to enjoy the value of the products thoroughly. Customer service is closely related to customer satisfaction. In Steven, Dong, and Dresner's research on the airline industry, they found that there was a nonlinear relationship between customer satisfaction and customer service, which could help relative companies to discover the optimal level of customer service [19]. In other industries like hospitality, Ra-dojevic, Stanic, and Stanic searched the most popular websites about hotel reservation services and got data about 6768 hotels, which are located in 47 European capitals, respectively [20]. They found several factors that affect customer satisfaction, and most of them were related to customer service.

On-purchase service, as well as after-sale service is also very worthy of attention. Some researchers found that the most important factors that affecting customer satisfaction in after-sales service were delivery, installation, and warranty [21]. The authors identified these three factors as a significant part in forming a long-lasting profitable relationship with customers. They believed that the relationship itself will bring company the loyalist customers who will strongly support company's future development [21]. In the research on the retail industry, Rigopoulou, Chaniotakis, and Lymperopoulos believed that after-sales service had an impact on customer satisfaction. It may affect the perceived value by the customer as well as the relationship between buyers and sellers [22]. Previous research can be seen that improving customer service quality is an excellent way to improve customer satisfaction.

### 3.4. IMPROVE EMPLOYEE SATISFACTION

Prior research believes that employee satisfaction plays an important role in the service provided by the company. If the employee is satisfied with the working condition in the company, they are more likely to provide a good service to customers [23]. When employee performance becomes better, customers are willing to come back to enjoy the same service that they experienced before. Chi and Gursoy also find that the cost of retaining past customers is less than the cost of appealing new customers [23]. Thus, the company should try to improve employee satisfaction to gain good employee performance, then keep long-term customer loyalty. Higher customer loyalty to a company's service will generate constant revenue for the company, further impact the profitability of the company.

## 4. CONCLUSION AND FUTURE

### RESEARCH

Authors choose customer satisfaction as an object of study, examining the relationship between nonfinancial measurement and company performance. By analyzing the definition of customer satisfaction and company performance, authors summarized four kinds of impacts of customer satisfaction to companies. The result indicated that customer satisfaction is closely related to customer loyalty and it also gives inspiration for company managers, helping them further complement accounting measures and do better decision-making. In terms of profitability, customer satisfaction plays an important role. Satisfied customers are more interested in products, and they are more likely to make repeated purchases, which will have a positive impact on total revenue. Customer satisfaction can also be used as a better indicator to measure future financial performance. Compared to a financial one, nonfinancial measurements can provide more incremental information. Suggestions are put forward about how to improve customer satisfaction. It is the right way for managers to find a balance between price and quantity and increase the price-quantity ratio. Improve the efficiency of the process, meaning saving time in the production process to make products deliver to the customer faster. Company can also improve customer service quality, both on-purchase service and after-sales purchase, to let customers feel satisfied in the whole process of using the product. By keeping great employee satisfaction, the employees are likely to provide better service to the customers, which could make sales of the company increase.

In future research, it is a good idea to consider the integration of customer satisfaction in different industries. Also, authors need to test whether quarterly data can replace the annual data used in the study and whether it's going to have the same results as annual data. With quarterly data analysis, managers and investors can identify problems earlier and make effective decisions.

## REFERENCES

- [1] Banker, R. D., Potter, G., & Srinivasan, D. (2000). An empirical investigation of an incentive plan that includes nonfinancial performance measures. *The accounting review*, 75(1), 65-92. <https://doi.org/10.2308/accr.2000.75.1.65>
- [2] Keisidou, E., Sarigiannidis, L., Maditinos, D. I., & Thalassinou, E. I. (2013). Customer satisfaction, loyalty and financial performance: A holistic approach of the Greek banking sector. *International Journal of Bank Marketing*, 31(4), 259-288. <https://doi.org/10.1108/IJBM-11-2012-0114>
- [3] Batchimeg, B. (2017). Financial performance determinants of organizations: The case of mongolian companies. *Journal of Competitiveness*, 9(3), 22-33.
- [4] Lau, C. M., & Sholihin, M. (2005). Financial and non-financial performance measures: How do they affect job satisfaction?. *The British Accounting Review*, 37(4), 389-413.
- [5] Kaplan, R., & Norton, D. (1992). The balanced scorecard--measures that drive performance. *Harvard Business Review*, 70(1), 71-9.
- [6] Yi, Y. (1990). A critical review of consumer satisfaction. *Review of marketing*, 4(1), 68-123.
- [7] Innis, D., & La Londe, B. (1994). Customer service: The key to customer satisfaction, customer loyalty, and market share. *Journal of Business Logistics*, 15(1), 1-1.
- [8] Behn, B. K., & Riley Jr, R. A. (1999). Using nonfinancial information to predict financial performance: The case of the US airline industry. *Journal of Accounting, Auditing & Finance*, 14(1), 29-56.
- [9] Ittner, C., & Larcker, D. (2003). Coming up short on nonfinancial performance measurement. *Harvard Business Review*, 81(11), 88-95.
- [10] Stivers, B. P., Covin, T. J., Hall, N. G., & Smalt, S. W. (1998). How nonfinancial performance measures are used. *Strategic Finance*, 79(8), 44.
- [11] Banker, R. D., & Mashruwala, R. (2007). The moderating role of competition in the relationship between nonfinancial measures and future financial performance. *Contemporary Accounting Research*, 24(3), 763-793.
- [12] Zhang, C., & Pan, F. (2009). The impacts of customer satisfaction on profitability: a study of state-owned enterprises in China. *Service Science*, 1(1), 22-30.
- [13] Sun, K. A., & Kim, D. Y. (2011). Customer Satisfaction, Profitability, and Firm Value in the Hospitality and

Tourism Industry: An Application of American Customer Satisfaction Index (ACSI) (Doctoral dissertation, University of Missouri-Columbia).

[14] Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of marketing*, 58(3), 53-66.

[15] Williams, P. and Naumann, E. (2011), Customer satisfaction and business performance: a firm-level analysis. *Journal of Services Marketing*, 25(1), 20-32. <https://doi.org/10.1108/08876041111107032>

[16] Fornell, C., Johnson, M., Anderson, E., Cha, J., & Bryant, B. (1996). The american customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60(4), 7-18.

[17] Wiersma, E. (2008). An exploratory study of relative and incremental information content of two non-financial performance measures: Field study evidence on absence frequency and on-time delivery. *Accounting, Organizations and Society*, 33(2-3), 249-265.

[18] Ittner, C., & Larcker, D. (1998). Are nonfinancial measures leading indicators of financial performance? an analysis of customer satisfaction. *Journal of Accounting Research*, 36, 1-35.

[19] Steven, A., Dong, Y., & Dresner, M. (2012). Linkages between customer service, customer satisfaction and performance in the airline industry: Investigation of non-linearities and moderating effects. *Transportation Research Part E*, 48(4), 743-754. doi:10.1016/j.tre.2011.12.006

[20] Radojevic, T., Stanistic, N., & Stanic, N. (2015). Ensuring positive feedback: Factors that influence customer satisfaction in the contemporary hospitality industry. *Tourism Management*, 51, 13-21. doi:10.1016/j.tourman.2015.04.002

[21] Shaharudin, M. R., Yusof, K. M. M., Elias, S. J., & Mansor, S. W. (2010). Factors affecting customer satisfaction in after-sales service of Malaysian electronic business market. *Canadian Social Science*, 5(6), 10-18.

[22] Rigopoulou, I., Chaniotakis, I., Lymperopoulos, C. and Siomkos, G. (2008), After-sales service quality as an antecedent of customer satisfaction: The case of electronic appliances, *Managing Service Quality: An International Journal*, 18(5), 512-527. <https://doi.org/10.1108/09604520810898866>

[23] Chi, C., & Gursoy, D. (2009). Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *International Journal of Hospitality Management*, 28(2), 245-253. doi:10.1016/j.ijhm.2008.08.0