Empirical Comparision Banking Service and Dental Service in using Firm Resources to Enhance Customer Loyalty

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***Abstract*— In the past, Good - Dominant logic said that customer could not evaluate the enterprise resource. But nowadays, according to Service - Dominant logic, the customer can determine the enterprise resource through the process of using service to decide which of the supplier to work. This study investigates the relationship between enterprise resources and service value; and the relationship between service value and customer loyalty by using qualitative research methods and quantitative research methods. Results show a positive and direct impact of supplier resources on service value; similar results to the effects of service value on customer loyalty. Base on that results, this research gives some solutions and recommendations for each kind of services to improve customer loyalty.**

Keywords *Loyalty – Resources – Service value – Banking services – Dental Service.*

1. Introduction

Nowadays, the service industry is growing and becoming an important part of promoting the country's economic. However, Vietnam in general and Ho Chi Minh city in particular, this corporation work in this field still not recognize their role and their importance. The main reason is the creation services value are not effective. The conception of a supplier creates service value, and the customer paid to use this service are controversial (G-D logic). With the emergence of the service-dominant logic (S-D) perspective [25], the new conceptions have occurred. First, the suppliers provide value proposition; second, customer and supplier co-create of value; finally, the customer is a person who creates real value for service because of time consuming, opportunities, and experiences during the process of using. Because customer take part in create service value, so it has a secure attachment and loyalty to the company.

Ho Chi Minh City is well-known as a modern city; it is the centre of the service industry in Vietnam. The Vietnam economy is regenerating; the standard of living is increasing that lead to the demand for raising the quality of life. In this circumstance, there are two important services which are health-care service and asset management service. The two representing of these two kinds of service are dentistry and banking. Based on the demand, there two fields has been developing and expanding. However, the quality and price are still hot issues. The main reason is that they even do not how to stimulate their strength, especially at Resource aspect. Good – dominant's perspective identified that customer could not evaluate the corporation resource. However, Service-Dominant logic said that the customer could determine the enterprise resource through the process of using service to decide which of the supplier to work. Thus, what is the enterprise resources and how much it affects the value of the service and customers' loyalty in these kinds of service What is the difference between them?

2. Theoretical Foundations and Research Methods

Resources

As to what a resource is, Resource-advantage theory defines resources as the "tangible and intangible entities available to the firm that enable it to produce efficiently and effectively a market offering that has value for some market segment(s)" [15]". Ref. [25] refers to that defined that resource includes operand resource (those on which an act or operation is performed to make benefit) and operant resource (those that act on other resources to make benefit). According to research by [31],[32] and [16] propose resource can be most usefully categorized as operand and operant resource, while operand resources are typically financial (e.g., cash reserves, access to financial market) and physical (e.g. raw material); operant resources are typically legal (e.g. trademarks, licenses), human (e.g. the skill and knowledge of individual employees), organizational (e.g. competencies, controls, policies, culture), information (e.g. knowledge resulting from consumer and competitor intelligence), relational (e.g. relationships with competitors, suppliers, and

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customers).
Foundational Premises 4 of S-D logic [26] said that "Operant resources are the fundamental source of competitive advantage." This perspective believes that operant resource not only creates by private funds but also create by external funds as customers, suppliers, shareholders. Therefore, in this study, we focus on operant resources.

Operant resource

According to research by [7], operant resources include physical and intangible assets (brand, innovation) and financial resources (internal and external funds). [28] considered operant resources as invisible resource (e.g invention, contract, reputation, license, capabilities). There are many concepts about the operant resource ([20]; [21]; [1], [41]). But in this study, the authors used the defined of [3]. It is said that the operant resources include reputation, goodwill, comfort, ethos, know-how, response, service quality, technology, staff's helpfulness, social atmosphere.

Service value and relationship between Operant resources and Service value

Ref. [27] refers to that "customers' perceived value about product base on their 's perceived about what they had received and what they had given." If the concept of service value is the same as product value, research shows that service value related to the evaluation of customer about the benefit of using the service and the sacrifice was given.
According to research by [29], service value includes technical and functional components. Besides, [30] proposed two component of service value are utilitarian value and hedonic value. In the other hand, [14] said that service value is divided into two correlate component, namely process value (or functional value) and outcome value (or technical value). Within each component, the trade-off principle is still applied [27]. That is, benefits and sacrifices are embedded in the way customers perceive process value and outcome value. Therefore, in this study, the author uses the scale of [14] to measure service value.
Co-creation of service value depends on the interaction between the Corporation 's operant resources and Customer 's operant resource [3]. Based on Service-dominant logic [26], the operant resource is linked together to co-creation service value. Therefore, operant resource direct effect on service value.

H1: Operant resource impact positively to customer loyalty.

Loyalty and the relationship between service value and customer loyalty

[5] refers to that found that loyalty is defined as the commitment of customers who would repurchase product or service, or priority is given to buy a particular brand in the future [33]. [34] emphasized loyalty in three types of situations are not aware, passively, and actively. A similar approach of [22] stated his opinion by combining aspects of behavior and attitudes in four levels from low to high level of loyalty. According to [8], the loyalty of customers is the psychological state with a particular object; it reflects the attitude of the customer on a favorite brand or corporation.
[35] recognized that service value is the main factor leading to customer loyalty. Service value directly influences customer loyalty if remove satisfaction [27]. Other authors argued that cognitive variables are mediated by effective ones to result in conative outcomes (e.g., [10]). Besides, [24] found a strong impact between service value and customer loyalty.

H2: Service value has a positive impact to customer loyalty.

Table1: Measurement Scales

Factor	**Coding**	**Applied and adjusted scale,**
1. Operant resource	RESOURCE	
Reputation	REPUTATION	[9]
Goodwill	GOODWILL	[6]
Comfort	COMFORT	[4]
Ethos	ETHOS	[18]
Know-how	KNOW_HOW	[37]
Response	RESPONSE	[38]
Service quality	QUAL	[4]
Technology	TECHNOLOGY	[1]
Staff's helpfulness	STAFF	[40][41]
Social atmosphere	SOCATM	[39]
2. Service value	SERVAL	[14]
Process value	PROVAL	
Outcome value	OUTVAL	
3. Customer loyalty	LOYALTY	[23]

3. Methodology and Results

The research model (Figure 1 and Figure 2) and hypotheses were tested using a data set collected from 336 customers using banking services and 375 customers using dental service in Vietnam. Convenient sampling with face-to-face interviews and online survey were used in this study. The SEM method with Amos 22.0 was employed to test the measurement and structural models.

Table 2: Sample characteristics

	Banking		**Dental**	
	Frequency	%	Number	%
Gender				
Male	169	50.3	179	48.8
Female	167	49.7	188	51.2
Age				
< 25	49	14.6	17	4.5
26-35	104	31	68	18.1
36-45	97	28.8	142	37.9
>45	86	25.6	148	49.5
Income				
< 3 millions	39	11.6	8	2.2
3 - < 5 millions	113	36.6	12	3.3
5 – 10 million	128	38.1	140	38.1
> 10 million	56	16.7	207	56.4
Marital status				
Single	129	38.4	126	34.3
Married no child	96	28.6	117	31.9
Married with child	111	33	124	33.68

Structural Equation Modeling is used to measure the research model. In this model, the scale was identified by Exploratory Factor Analysis and confirmed by the method of Confirmatory Factor Analysis. For CFA, the distributions of variables showed that all of them gained kurtosis values within 0.854 – 2.020 in Banking service and within -1.260 to 0.802 in Dental service. Their skewness values were within -1.145 – 0.960 in Banking service and within -0.630 – 0.848 in Dental service. Although the data exhibit slight deviations from a normal distribution, it was appropriate for maximum likelihood (ML) estimation to be applied [19]. Sixty-two observed variables are based on the synthesis of the theoretical foundation and are determined by interviewing six experts. However, after running Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), 12 variables were eliminated because of low factor loading (<0.5) or because observed variables can have a high factor loading that present in both factors.

Because we collected data for our dependent and independent variables using convenient sampling and an online survey, we tested for common methods bias. To do so, we employed the "unmeasured latent factor method" suggested by [36] to extract the common variance. This method requires the addition of an unmeasured latent factor to the measurement model during confirmatory factor analysis. This latent factor includes all indicators from all other latent factors. This approach detects the variance common among all observed indicators. The indicator loadings on this common latent factor are constrained to be equal to each other to ensure that the unstandardized loadings will be equal. Squaring the unstandardized loading (which for all indicators will be the same value) then gives the percent of common variance across all indicators in the model. This value is the common method bias [11]. The results of this test showed that 7.84 percent of the variance could be due to common method bias for Banking service and 4 percent for Dental service. In conclusion, common methods bias was not a serious concern for Banking service and Dental service. Besides that, model estimation results in a satisfactory fit between the model and the data with Chi-square = 1519; dF = 1161; p = 0.000; Chi-square/dF = 1.309; GFI = 0.850; TLI = 0.952; CFI = 0.950; RMSEA = 0.030; HOELTER = 274 in Banking service and with Chi-square = 1465; dF = 1161; p = 0.000; Chi-square/dF = 1.262; GFI = 0.868; TLI = 0.958; CFI = 0.960; RMSEA = 0.026; HOELTER = 317 in Dental service. Overall, the samples from both studies revealed a good fit.

Moreover, the result showed the coefficient of factor loading range from 0.645 to 0.898 in Banking service and 0.620 to 0.891 in Dental service, which corresponds to the convergent validity [42]. The correlations between constructs ranged from 0.021 to 0.510 in Banking service and -0.001 to 0.737 in Dental service, which was lower than 0.85, meaning that all scales achieved discriminate validity [19]. The composite reliabilities for constructs ranged from 0.777 to 0.913 in Banking service and from 0.781 to 0.882 in Dental service. In sum, the results of CFA indicated that all measurement scales achieved reliability, convergent, and discriminate validity.

In general, the test results showed that the two hypotheses (H1, H2) is accepted. It means Operant resource impact positively to customer loyalty (β= 0.575 in Banking service and β= 0.459 in dental service), and service value has a positive impact to customer loyalty (β= 0.620 in Banking service and β= 0.568 in Dental service). Finally, there is exist the indirect effect between operant resources and customer loyalty.

Figure 1: Model of Research (Banking service)

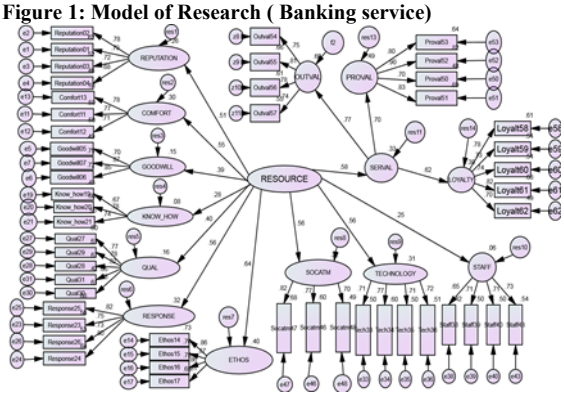
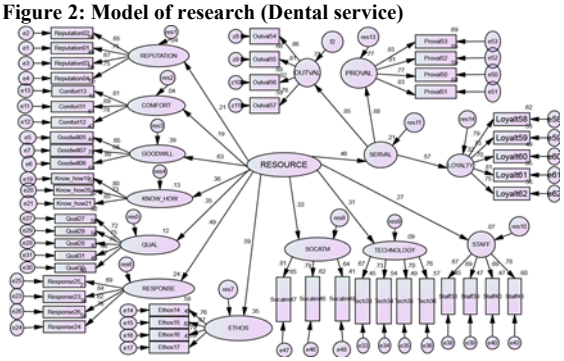


Figure 2: Model of research (Dental service)



4. Discussion

In this research, all two hypotheses are supported, which indicate the direct effect of operant resources on service value and service value on customer loyalty. This results show the consistent with previous research ([26]; [3]; [14]; [27]) and this research reaffirm the view of S-D logic, that is customer can evaluate the enterprise resource through the process of using service in order to decide which of supplier to work with. On the other sides, this research shows that the operant resources do not directly effect to customer loyalty, but cause indirectly to customer loyalty via service value. It can be explained that the operant resource is a necessary but not a sufficient condition to make customer loyalty. If the enterprise has a useful operant resource (e.g., has excellent skill and knowledge of individual employees) but the service quality and service value provided is not right, the customer cannot stay close with that enterprise.

Amount ten component of operant resource, in banking service, Ethos has the most powerful effect (β= 0.64), and Staff 's helpfulness has the weakest impact (β= 0.25). In contrast, in Dental service, Goodwill has the most influential effect (β= 0.63), and Comfort has the lowest impact (β= 0.19).

Besides, the process value and outcome value has a significant effect on service value. However, there is a different between two kind of services. In banking service, the outcome value (β= 0.770) has a stronger effect on service value than process value (β= 0.70). It can be explained that banking service related to the asset of a customer, so outcome value always be concerned by them. The transaction success, safe and quick is what customer need. In contrast, process value (β= 0.880) has a stronger effect on service value than outcome value (β= 0.850) in dental service. It means that during dental care, service value depends mainly on the customer's perception of the process provision, such as dental care can work quickly, with pain or not

5. Conclusion and Recommendations

From the research results, it also confirmed the impact of operant resource on service value and the effect of service value on customer loyalty. Moreover, the operant resource affects indirectly to customer loyalty. Therefore, the management should concern more about the operant resource and service value. Specifically, with banking service, the management can focus on Ethos factor and outcome value to increase customer loyalty. In contrast, with dental service, the management should carry out the strategy to improve the Goodwill factor and process value to increase customer loyalty. Besides, Banking and Dental manager should carry out regularly and frequently train the staff to improve their skill and knowledge. Besides that, enhance the quality of service, investment, and development technology are one of the most important things to enhance the competitive advantage of the enterprise, which is due to increase customer loyalty.

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