

Study on Effect of Internal Interdepartmental Integration on Customer Loyalty: Using Service Innovation as an Mediator

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Abstract: -Under the advancement of technology and change of environment, enterprises should comply with environmental trends, integrate internal and external resources and competence, adopt “immediate innovation” and knowledge flow in organizations, complementary competence and immediate and smooth communication with customers in order to allow organizations to acquire external knowledge and improve innovative development to maintain sustainable competitive advantages. However, current research only focuses on organizations or consumers’ behavior instead of the combination between organizational study with consumers’ behavior. This study attempts to explore effect of Internal Interdepartmental Integration on service innovation and customer loyalty. However, for the enterprises, it is the most important for the company to improve customer value and customer loyalty through service innovation. However, at present, only researches related to organizations or consumer behaviors are conducted, there is rare research into the combination between organization level and consumer behavior, and this research tries to explore this aspect, which is the motivation and contribution of this research. This research aims to explore the relationship between “Interdepartmental Integration”, “Service Innovation” and “Customer Loyalty”, according to the analysis results, the relationship between “interdepartmental integration and service innovation” and “service innovation and customer loyalty” has a low positive correlation and it reaches significant level; it shows the relationship between “interdepartmental interaction and progressive innovation” and “interdepartmental collaboration and fundamental innovation” is significant

Key-Words: - Internal Interdepartmental Integration, service innovation, customer loyalty

1 Introduction

With the progress of science and technology and the change of environment, the competition between organizations becomes fiercer than before, so it is not enough to only rely on one’s own resources and capability in order to maintain the competitive position at the market, and resources and knowledge outside the organization become more and more important for the organization, and the enterprise can obtain complete market intelligence through the relationship network between organizations so as to make up for their own inadequacy and strengthen the existing competitive advantage. But if the enterprise only meets the needs of the existing customers, it may be unable to maintain customer loyalty to lead to poor performance, while “Continuous Innovation” can help the enterprise to maintain the competitive advantage in a dynamic environment (Kim and Mauborgne, 1997; Lazonick & Prencipe, 2005; Wang & Ahmed, 2007). Therefore, the enterprise should cooperate with the environment trend to combine internal and external

resources with capability to maintain its sustainable competitive advantage by virtue of “Real-time Innovation”. Due to the limited resources of the enterprise itself (Danneels, 2008), it needs to rely on external knowledge to improve its own capability (Zollo., 2002). the higher degree of knowledge diversity the organization has, the better the innovation performance will be (Wu, 1998). In addition to the enterprise’s market awareness capability, strategic alliance is also an important way in many ways to obtain external knowledge (Weng, Chiu, Tsai, and Huang, 2007); the circulation of knowledge between organizations, complementation of capability as well as real-time and smooth communication channel with customers can help the organization to obtain external knowledge and improve the innovation and development of the enterprise (Kang & Kang, 2014).

Bruhn and Grund (2000) argued that in an increasingly competitive enterprise environment, the company strategy in the existing industries has

focused on the improvement of customer loyalty instead of attracting new customers. If the service value provided by manufacturers is greater than that of other competitors, customers will have a considerable degree of loyalty and repurchase intention for the company. When the service quality has been proved to be a necessary condition to convince customers of making a choice, many organizations have learned that it is important to maintain superior service if you want to gain customer loyalty, therefore, service innovation must be made to improve customer value. This long-term vision has been changed from service strategy to service commitments; moreover, if the manufacturer understands the customer's life value, in the present competitive environment, it is the most important to develop long-term customer relationship in order for the company's survival. As a result, in order to survive, it is the most important for the company to improve customer value and customer loyalty through service innovation. However, at present, only researches related to organizations or consumer behaviors are conducted, there is rare research into the combination between organization level and consumer behavior, and this research tries to explore this aspect, which is the motivation and contribution of this research. Based on previous background and motives, this study proposes the following purposes:

1. To explore correlation between Internal Interdepartmental Integration of organizations and service innovation
2. To explore correlation between Internal Interdepartmental Integration of organizations and customer loyalty
3. To explore Internal Interdepartmental Integration and service innovation of organizations and customer loyalty

2 Literature Review

2.1 Interdepartmental Integration

Interdepartmental integration is a quite important activity for the development of new products, however, such word has no clear definition for a long time. It can be observed from previous researches and literatures that there exist three kinds of different opinions on what is interdepartmental integration. Some researches regard interdepartmental integration as a process of interaction, which emphasizes on the communication with the use of meetings and information exchange between departments. Some other researches equalize interdepartmental

integration and the concept of collaboration, thinking that each department will respect each other and achieve common goals with teamwork spirit. However, another type of literatures thinks that interdepartmental integration reflects two different concepts mentioned above at the same time and it combines the process of information sharing and joint participation.

Iansiti and Clark (1994) pointed out that the so-called "Internal Integration" is nothing but to make wide coordination among different units within an organization (Cross-functional Integration) and there are clear goals in the practice of project concept.

Jones (1999) proposed the measures to enhance organizational integration: 1) authoritative level: designation of report between two parties; 2) direct contact: managers' face-to-face negotiation; 3) person of contact: a special role with specific responsibility to coordinate different managers; 4) task team: provisional committee to coordinate cross-functional activities; 5) team (more permanent): managers coordinate related activities by regular meetings; 6) role of integration: the new role to coordinate two or more departments; 7) department of integration: it is a formal department and the main task is to coordinate two or more departments. Susman et al. (1992) suggested the promotion of interdepartmental integration mechanisms and they explored integration mechanisms of departments by level of organizational functions, project team, tools and techniques; it includes high-rank supervisors' support, project evaluation, co-location of departments, rotation of personnel and lowering communication organizational level of departments. Among others, project evaluation, co-location of departments and lowering communication organizational level of departments positively influence creation of organizational value. However, high-rank supervisors' support should be based on total authority and personnel rotation should not be overly frequent. Thus, they can reveal positive effect on creation of organizational value.

Interdepartmental integration is also the concept of collaboration and it emphasizes that the departments accomplish the common goals by cooperation (Schrage, 1990). Interdepartmental integration is divided into external interdepartmental integration and Internal Interdepartmental Integration of enterprises. External interdepartmental integration means collaboration, interaction and communication between external groups related to new product development (customers and suppliers) and new

product development team; Internal Interdepartmental Integration refers to cooperation, interaction and communication between functional departments in the enterprises related to new product development (such as marketing, manufacturing and R&D) and new product development team. In project of new product development, interdepartmental smooth exchange of information is the successful key of new products. Departmental interaction and removal of interdepartmental obstacles will result in more effective information exchange (Moenaert & Souder, 1990a, 1990b). Kahn (1996) treated EIA companies as samples to conduct the study and the finding demonstrated that interdepartmental collaboration significantly and positively influenced performance.

2.2 Service Innovation

The term “service industry” was derived from classification of the United States Department of Commerce in the 1930s on American economy. Standard industrial classification (SIC) divided economic zone into three departments: agriculture, manufacturing industry and service industry. In this classification, service industry is as follows: “upon the agreement of certain person or another economic entity, the economic entity changes the state of the said person by the activities or provide the finances to another economic entity”. In competitive environment, service innovation becomes more important and it has become the effective measure to trigger the growth of business (Deshpande & Farley, 1999; Kandampully, 2002; Bryson & Monnoyer, 2004; Drejer, 2004).

Service innovation usually refers to the supply manufacturers developing new services or products, even the addition or change in service concept, so as to make the enterprise serve customers with different ways (Johne & Storey, 1998; Menor, Tatikonda, & Sampson, 2002). There exist lots of literatures discussing products and process innovation in manufacturing industry (Reichstein & Salter, 2006), but the literatures on service industry are relatively fewer, and the reasons may be concluded to be the special features of service industry- innovation service cannot be protected by patent and it may be imitated by competitors in a short time. Therefore, continuous innovation is an important condition for service industry to maintain the competitive advantage. Gallouj (2002) defined service innovation as obtaining services with a different form, such as bank ATM and online ticketing service; Bolton (1997) argued that service innovation is to enhance the added values

given to consumers through the ascension of technology or the addition of functions of enterprise. According to the literatures mentioned above, this research defined service innovation as – the enterprise provides customers with the different service in any form compared with the past, in order to increase the convenience behaviors of consumers. In the researches of Gallouj (2002) and Morgan et al. (2008), fundamental innovation operationalization is defined as “The organization gets away from the original framework to create a new product or service which can bring values to customers”, and progressive innovation operationalization is defined as “the innovation that the enterprise amends or modifies old products or deficiencies of service and improves its performance to provide customers with new value”.

2.3 Correlation between Internal Interdepartmental Integration and Service Innovation

Interdepartmental integration is seen as a process of interaction, which emphasizes on the communication through the mode of meeting between departments and information exchange (Ruekert & Walker, 1987; Sheth and Parvatiyar, 1993). Millson and Wilemon (2002) also pointed out the adoption of interdepartmental integration will improve cooperation, interaction and communication between internal and external support groups of new products and development team of new products. Of course, interdepartmental integration is a very important activity in the process of the development of new products, and good interdepartmental integration can increase the efficiency of the enterprise and reduce unnecessary waste. The adoption of internal interdepartmental integration by the organization can achieve good communication and knowledge integration, and the generation of new products and new services is seen as the result of exchange and integration of a series of knowledge (Rosell, Lakemond & Wasti, 2014).

Morgan et al(2008) argued that organizations of market orientation tend to adjust the innovative strategy due to environmental change to reach the goal of Incremental Innovation; organizations with technology orientation tend to apply new technology to new services and products to accomplish the goal of Fundamental Innovation. Fundamental Innovation and Incremental Innovation are not two contradictory concepts (Hughes et al., 2010). When organizations can effectively develop both Fundamental Innovation

and Incremental Innovation, they will obtain the complementary outcomes of the two (Hughes et al., 2010) and considerably reinforce the performance of innovation to organizations (Gibson & Birkinshaw, 2004; He & Wong, 2004). Thus, this study measures innovative capacity of organizations by Fundamental and Incremental Innovation.

Grant (1996) emphasized that effective integration mechanism in the enterprise should be seen as one of the important organizational cultures. So according to related researches and literature reviews mentioned above, this research infers the following hypothesis:

H1: Internal interdepartmental integration will have a positive effect on service innovation

2.4 Customer Loyalty

Griffin (1997) pointed out that customer loyalty is related to purchase behavior and his definition on customer loyalty is as follows: (1) regular repeated purchase; (2) focus on the series products or services provided by the company; (3) establish public praise; (4) have the immunity to the promotion activities of other operators. Oliver (1999) argued that in terms of customer loyalty, although the customers will be affected by the external factors or the temptation of marketing, their purchase intention or commitment for preferential products or services will not change, and the research can be divided into four stages for discussion, which are respectively cognitive loyalty, emotional loyalty, intentional loyalty and behavior loyalty. Kotler and Keller (2006) argued that loyal customers will purchase more products, spread good reputation for the company or new products, pay no attention to competitive brands, be not sensitive to the price, provide ideas related to the product or service to the company and have lower service cost than new customers due to fixed transaction when the company promotes new products or upgrade new products.

2.5 Correlation between Service Innovation and Customer Loyalty

Market competition becomes increasingly fierce, and if the enterprise only provides product or service at a lower price, it often cannot compete with rivals in the long-term run and stabilize its market position. As service innovation can increase convenience for customers, create more potential values and obtain higher customer loyalty (Bolton, 1997; Gallouj, 2002), more and more enterprises are

putting more efforts into innovative activities to seek for distinguishing services (Evangelista & Sirilli, 1998). Among them, banks can maintain or expand the existing customer groups by providing innovative services and products (Rossignoli & Arnaboldi, 2009). De Jong et al. (2003) also thought that service innovation will usually increase customer satisfaction and customer loyalty, and when customers realize high quality customer interface, it will help to increase their loyalty for the enterprise and increase consumer's repurchase and repeated purchase ratio (Chang & Chen, 2009). The process innovation has a positive effect on the future sales of the enterprise (Nicolau & Santa Maria, 2012). Therefore, how the enterprise effectively satisfies and attracts consumers to increase customer loyalty through innovative service has become the main direction of efforts of the enterprise. So this research infers the following hypothesis according to related researches and literature reviews mentioned above:

H2: Service innovation will have a positive effect on customer loyalty

2.6 Mediation Mechanism of Service Innovation

In a competitive market environment, the organization is difficult to maintain a sustainable competitive advantage (Teece, Pisano and Shuen, 1997; Zhou et al., 2005). The organization can maintain its position in the market only through constant reconfiguration and resource integration to meet customer's demands (Beach et al., 2000; Eisenhardt & Martin, 2000). Hult and Ketchen Jr. (2001) pointed out that the organization with reconfiguration ability can coordinate with the market conditions to combine customer demand and the existing knowledge so as to develop the innovation in line with market trends. At the same time, it can also assist organizational members to create a more rapid reaction capability in face of highly competitive environment (Jan & Christian, 2005). Moreover, service innovation is to constantly use new technology and new knowledge to make improvement in terms of the existing products and services (Drejer, 2004; Jan & Christian, 2005). The enterprise must pass the collected information to the internal organizations of the enterprise and drive all the staff in the department to be devoted to the activity by means of cross-functional coordination within the organization so as to meet customer's demand, When the enterprise is devoted to meeting the specific demands of customer,

in terms of enterprise, the importance of internal interdepartmental integration will be improved, and as the customer has expressed their demand, the enterprise needs to spread the information received from the customer to different departments.

To sum up literature reviews mentioned above, this research thinks that Marketing Department and R&D Department in Taiwan's enterprises can reduce conflicts between departments caused due to cognitive differences in new products, so as to increase service innovation and further affect customer loyalty in the globalized competitive market.

H3: Internal interdepartmental integration will have an effect on customer satisfaction through service innovation

3 Research Method

3.1 Research Structure

Based on the three variables of internal interdepartmental integration, service innovation and customer loyalty summarized from the above literatures, interdepartmental integration is divided into two dimensions of interdepartmental interaction and interdepartmental collaboration; service innovation can be divided into two dimensions of fundamental innovation and progressive innovation, and the variable of customer loyalty, as is shown in Figure 3-1.

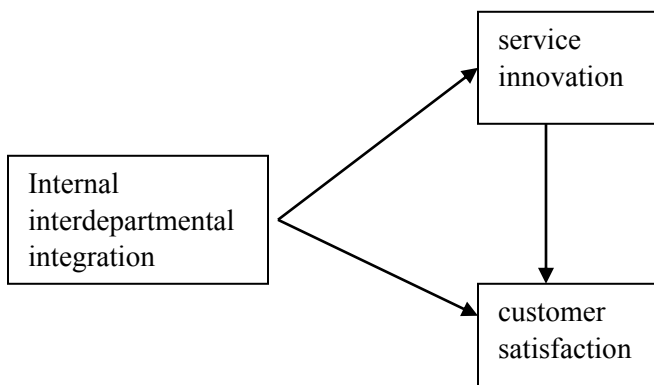


Figure 3-1 Research Structure

3.2 Research Subjects and Sampling

The research subject in this research was an international import car factory in Taiwan, the Unit primarily provides inspection or maintenance to the

imported vehicles, and at its service center, experienced maintenance technicians are familiar with the company's vehicle type contents and maintenance, thus they can provide maintenance and service. Besides, as this company is the imported car factory with high unit price, it hopes to provide the best balance status in terms of the company's internal and after-sales service. As this research explores the problems of organization level and consumer level, this research adopts paired sampling; in terms of sampling method, generally employees fill in the questionnaire first, then they deliver the questionnaires to the customer for filling. And the survey time lasts from May 20, 2016 to June 5, 2016.

3.3 Measurement Tools

(1) Interdepartmental integration

This research adopted the definition of Kahn (1996) to divide interdepartmental integration into interdepartmental interaction and interdepartmental collaboration; interdepartmental interaction adopted the perspective of information flow of Van de Ven and Ferry (1980) and Kahn(1996), with a total of five items; interdepartmental collaboration adopted measurement standard proposed by Kahn (1996), with a total of 6 items. In addition, an overall measurement item is added. This scale uses five point scale for scoring and measurement.

(2) Service Innovation

This research referred to the research of Morgan et al. (2008) to define fundamental innovation operationalization as "The organization gets away from the original framework to create a new product or service which can bring values to customers" and the progressive innovation operationalization as "the innovation that the enterprise amends or modifies old products or deficiencies of service and improves its performance to provide customers with new value". There were a total of 2 dimensions of 10 items, and five point scale was used for scoring and measurement.

(3) Customer Loyalty

This research referred to the literatures of Webster & Sundaram (1998), Delcourt, Gremler, Riel and Birgelen (2012) to be used for the indicator of customer loyalty, there were a total of 10 items for the questionnaire, and five point scale was used for scoring and measurement.

4 Research Results Analysis and Discussion

4.1 Samples Analysis

Formal questionnaire of this study is paired sampling. Ordinary employees first filled in organizational questionnaires and they subsequently distributed them to customers as customer questionnaires. Investigation time lasted from May 20 to June 5, 2016. 220 questionnaires were distributed. After deleting the samples which were not paired, this study retrieved 206 questionnaires. Return rate was 93.64 %.

(1) Samples of organizations

- a) Gender: as to gender of the subjects who fill in the questionnaires, most of them are "males" and percentages of males and females are 64.1% and 35.9%.
- b) Age: as to age of the subjects who fill in the questionnaires, most of them are aged "41-49" and percentage is 51.0%.
- c) Educational background: as to educational background of the subjects who fill in the questionnaires, most of them are graduated from "college" and percentage is 71.4%.
- d) Job title: as to job title of the subjects who fill in the questionnaires, most of them are "ordinary employees" and percentage is 35.4%.
- e) Department: as to the department of the subjects who fill in the questionnaires, most of them are in "department of on-site maintenance" and percentage is 31.1%.
- f) Working years: as to working years of the subjects who fill in the questionnaires, most of them are "11-20 years" and percentage is 39.81%.
- g) Related experience of other brands: most of the subjects who fill in the questionnaires do not have the related working experience in other brands and the percentage is 59.2%; most of those with experience is "within 5 years" and the percentage is 18%. Based on above, the employees are mostly the males aged 41-49. Most of them are married and their working years are mostly more than 11 years. The result shows that

nowadays, in automobile related industry, since most of the males are more familiar with the related products and as to function and maintenance, males' preference and learning are more significant than females. Thus, most of them are males.

(2) Samples of customers:

- a) Gender: as to gender of the subjects who fill in the questionnaires, most of them are "females" and percentages of males and females are 43.2% and 55.8%.
- b) Age: as to age of the subjects who fill in the questionnaires, most of them are aged "36-45" and percentage is 38.3%.
- c) Educational background: as to educational background of the subjects who fill in the questionnaires, most of them are graduated from "college" and percentage is 64.66%.
- d) Category of occupation: as to category of occupation of the subjects who fill in the questionnaires, most of them are in "wholesale/retail industry", "hotel/catering industry" and percentages are 18% and 18.4%.
- e) Job title: job title of the subjects who fill in the questionnaires is mostly "chief/director" and percentage is 32%.
- f) Marital status: marital status of the subjects who fill in the questionnaires is mostly "married (with children)" and percentage is 51.9%.
- g) Personal monthly income: monthly income of the subjects who fill in the questionnaires is mostly "NTD100,001~150,000" and percentage is 44.7%.

Based on above, the consumers are mostly the females aged 36-45. Their job title is mostly chief/director and monthly income is mostly "NTD\$100,001~150,000". The result shows that nowadays, the consumers who purchase more expensive automobiles are not only the males. Besides, the characteristics of product design of the case company refer to male and female consumers. Thus, the percentages of the male and female consumers are respectively about 50% and females are slightly higher than males.

4.2 Reliability and Relevant Analysis

It is shown from Table 4-1 that the reliability results of the questionnaires in this research are all larger than 0.75 (reliable scope), therefore, it conforms to general rigorous level. According to Wortzel(1979), when α is between 0.7 and 0.98, it is high reliability value. When it is lower than 0.35, it should be rejected. Based on the principle, in this study, Cronbach's α of the dimensions are acceptable. Thus, questionnaire reliability result of this study is positive and it matches the precise level.

Table 4-1 Table for Reliability and Relevant Analysis.

	1	2	3	4	5
1. Interdepartmental Interaction	(0.784)				
2. Interdepartmental Collaboration	.322**	(0.902)			
3. Progressive Innovation	.316*	.251*	(0.789)		
4. Fundamental Innovation	.023	.247*	.228**	(0.874)	
5. Customer Loyalty	.086	.011	.408**	.380**	(0.821)

Note: *p<.05, ** p<.01, ***p<.005

4.3 Predicted Relationship between Interdepartmental Integration, Service Innovation and Customer Loyalty

It can be found from Table 4-2 M1 that "Interdepartmental Interaction" ($\beta = .016$, $p < 0.05$) can be used to predict "Progressive Innovation", which indicates that the higher the score of "Interdepartmental Interaction" level is, the higher the score of "Progressive Innovation" will be. It can be found from M2 that "Interdepartmental Collaboration" ($\beta = -.051$, ns) cannot be used to predict "Progressive Innovation", which indicates the higher the score of "Interdepartmental Interaction" level is, the lower the score of "Progressive Innovation" will be. It can be found from M3 that "Interdepartmental Interaction" ($\beta = -.033$, ns) cannot predict "Fundamental Innovation". It can be found from M4 that "Interdepartmental Collaboration" ($\beta = .047a$, $p < .05$) can predict "Fundamental Innovation", which indicates the higher the score of "Interdepartmental

Collaboration" level is, the higher the score of "Fundamental Innovation" will be. It can be found from M5 that "Progressive Innovation" can significantly predict "Customer Loyalty" ($\beta = .408$, $p < .005$), which indicates the higher the score of "Progressive Innovation" level is, the higher the score of "Customer Loyalty" level will be. It can be found from M6 that "Fundamental Innovation" can significantly predict "Customer Loyalty" ($\beta = .38$, $p < .01$), which indicates that the higher the score of "Fundamental Innovation" level is, the higher the score of "Customer Loyalty" will. In past research, Chuang and Tuan (2006) stated that with continuously upgrading living materials, service innovation not only results in rich experiential value for customers and responds to their core demands, but also provides valuable service perceived by target customers and potential ones. In addition, service innovation means to constantly reform original products and services by new technology and knowledge (Chuang and Tuan, 2006; Drejer, 2004; Jan & Christian, 2005). In addition, marketing and R&D departments can avoid the interdepartmental conflict due to cognitive difference toward new products (Lin, 2013). They enhance service innovation and influence customer loyalty. However, the result of this study is different and it is inconsistent. The point will be elaborated in Chapter 5.

In the part of mediation analysis, the establishment of mediation effect must meet 4 conditions according to the perspective of Baron and Kenny (1986): (1) independent variable and dependent variable must be significantly correlated; (2) independent variable and mediation variable must be significantly correlated; (3) mediation variable and dependent variable must be significantly correlated; (4) after the mediation variable is added into the model, the relationship between independent variable and dependent variable will become weaker or less significant. It can be found from M7 in this research that "Interdepartmental Interaction" ($\beta = .086$, ns) cannot predict "Customer Loyalty" and its total predictive power is .086. In addition, the standard regression coefficient of "Interdepartmental Interaction" level is positive, which indicates that the higher the score of "Interdepartmental Interaction" level is, the higher the score of "Customer Loyalty" will be; in addition, it can be found from M8 that "Interdepartmental Collaboration" ($\beta = .011$, ns)

cannot predict “Customer Loyalty” and its total predictive power is .011. In addition, the standard regression coefficient of “Interdepartmental Collaboration” level is positive, which indicates that the higher the score of “Interdepartmental Collaboration” level is, the higher the score of “Customer Loyalty” will be. Based on the perspective of Baron and Kenny (1986), the establishment of mediation effect must meet four conditions, and the relationship between independent variable and dependent variable (interdepartmental interaction and customer loyalty, interdepartmental collaboration and customer loyalty) is not significant according to the results of this research, so the first condition is not true, and service innovation has no mediation effect in this research.

Table 4-2 Regression Analysis Table

Level	Progressive Service Innovation		Fundamental Service Innovation		Customer Loyalty			
	M1	M2	M3	M4	M5	M6	M7	M8
MODEL								
Interdepartmental Interaction	.016*		-.033				.086	
Interdepartmental Collaboration		-.051		.047*				.011
Progressive Service Innovation					.408**			
Fundamental Service Innovation						.380**		
F	.054	.527	.227	.454	40.605	34.343	1.509	.026
R^2	.000	.003	.001	.002	.163	.140	.007	.000
Adjusted R^2	-.005	-.002	-.004	-.003	.167	.145	.002	-.005

5 Conclusion and Suggestions

5.1 Results and Discussion

This study demonstrates that most of the employees are males aged 41-49 and they mostly are married with working years more than 11 years. The result reveals that nowadays, in automobile related industry, since most of the males are more familiar with the products and in terms of functions and maintenance, males' preference and learning is more significant than females, males are the most. Besides,

since the case company is the enterprise, in automobile related industry, which requires higher cost of consumption, the employment of employees is based on the concern of working years and competence. For managers, experienced employees do assist with the enterprise and enhance the persuasion of customers regarding the company. However, in order to upgrade service innovation, this study suggests recruiting younger employees for brainstorming to strengthen the originality. In addition, consumers of this study are mostly the females aged 36-45. Their job title is mostly chief/director and monthly income is mostly “NTD\$100,001~150,000”. The result reveals that nowadays, not only males who purchase more experience automobiles. In addition, characteristics of the product design of the case company refer to male and female customers. Thus, the percentages of male and female consumers are about 50% and females are slightly higher than males. Unit prices of products in case company are higher. Hence, consumers all have certain level of job title and financial capacity and their monthly incomes are mostly NTD\$ 100,001~150,000”. According to the outcome, after consumers are satisfied with MASLOW basic demand level, they spend money to automobiles with higher unit prices. For managers, the existed customers are in this category. Hence, in terms of marketing and strategy, they can strengthen the marketing strategy to females.

This research aims to explore the relationship between “Interdepartmental Integration”, “Service Innovation” and “Customer Loyalty”, according to the analysis results, the relationship between “interdepartmental integration and service innovation” and “service innovation and customer loyalty” has a low positive correlation and it reaches significant level; it shows the relationship between “interdepartmental interaction and progressive innovation” and “interdepartmental collaboration and fundamental innovation” is significant, this result is similar to that of Morgan et al (2008), Rosell, Lakemond and Wasti (2014), the reason is that the innovation strategy is easily adjusted due to the change of environment in case of the collaboration between organizations to achieve the goal of progressive innovation and further apply it to new services and products to realize fundamental innovation so as to finally form customer satisfaction. And when organizations adopt internal interdepartmental integration, it can achieve good communication and knowledge integration, consumer is the first to be influenced by the innovation of new

product and new service, and it is expected to have certain innovation, so the higher the fundamental innovation and progressive innovation is, the higher the customer loyalty will be, which is just like the case car factory in this research; if its service mode is modified and innovated no matter it is in after-sales service or repairing, the customer will be absolutely affected first, and they will think this enterprise considers the customer, so they will be more loyal to the company. Therefore, in terms of manager, employees should be encouraged to think about the way of service innovation and make full use of it, which will be more helpful to the company; in terms of general employees, thinking about or putting forward a new mode of service innovation will also have an effect on the improvement of their own performance. Moreover, this research shows that fundamental service innovation and progressive service innovation will have a positive effect on customer satisfaction, and its research results are similar to that of Rossignoli and Arnaboldi (2009), De Jong et al. (2003), Chang and Chen (2009), the progressive service innovation and fundamental service innovation can predict customer loyalty.

The mediation effect of fundamental innovation and progressive innovation cannot be supported, because whether all departments will hold a meeting to discuss their status, or the departments organize work team or committee, or the departments use email for discussion or the departments will cooperate just like a team in terms of interdepartmental integration, consumers will think these things within the organizations are not related to them, so it will have no influences; Besides, interdepartmental integration will not affect the service innovation. This research thinks that the "site maintenance department" in office departments accounts for 31.1% and business and customer service departments account for 19.4% during the analysis on sample of employees, the functional contents focus on individual work, even good communication is made with other departments, it will not directly affect the service innovation, so it will produce no influences. To sum up, service innovation can effectively affect customer loyalty. Namely, the higher the service innovation is, the higher the customer loyalty will be; on the contrary, it will be lower.

In terms of managers, perhaps interdepartmental integration cannot predict the service innovation and customer loyalty, but if managers continue to focus on interdepartmental

integration, whether it is collaboration and interaction, it is believed to be helpful to the operation of the entire organization.

5.2 Management Implication and Suggestions for Future Research

In terms of enterprise, any service innovation of the company can increase customer loyalty, therefore, the enterprise should always think about how to change the status quo and how to increase the service innovation in order to improve corporate performance; in case of no innovative technical support, they should also find a way to change original service process or improve service quality; this kind of service innovation can not only improve the existing customers, but develop new customers when there is word-of-mouth marketing.

In respect of interdepartmental integration, when each department carries out interactive discussion, it is of help to improve or change the original service; if each department has a common idea and the frequency of reaching common goals, they can develop, think about and introduce new technologies and services, so each department is still suggested to perform a good interaction and collaboration, which must have certain help to the performance of the company.

This research finds that most males know more about related products in today's car industry, and male's preference and learning for the performance and maintenance are higher than that of females; besides, imported automobile companies require higher sum of consumption in the industries related to automobile, so they mainly consider seniority and ability during hiring staff. For managers, experienced staff are really helpful to the enterprise, and they can also promote the persuasive power of the customer towards the company, but in order to promote service innovation, it is suggested to add new younger workers in order to encourage each other and to improve the creativity. In the part of consumers, most of them are females, and this result shows that not only male can purchase car with higher amount, so the characteristics of product design in future shall consider both male and female customers; in addition, the proportion of the gender of consumption is analyzed, with male and female respectively accounting for 50%, and the results also show that the consumer will spend money on cars with high unit price after satisfying the basic need hierarchies of MASLOW. For managers, the existing customer

group is this kind of customer group, so marketing strategy aiming at female can be increased in marketing and strategy.

In terms of suggestions for the future research, in the aspect of research scope, although questionnaires are handed out evenly and dispersedly as much as possible in this research and the sample distribution is representative, this research still has its deficiency that the number of samples is small and the departments are incomplete, which is a limitation to the integrity of this research, therefore, it is suggested that questionnaires be handed out to all the branch companies of Taiwan in future research. In terms of research methods, this research uses a cross-sectional design, and it may have the doubt for causal inversion on the discussion of causal relationship. However, it is suggested that future research should adopt the strategy of longitudinal research in order to avoid confusing cause and effect to carry out the measurement at different time points; in terms of research variables, this research mainly takes interdepartmental integration, service innovation and customer loyalty as the variables, but this research only analyzes interdepartmental integration but not from the perspective of employees, which fails to explore the positive psychology and the influences brought by leaders. Therefore, future researchers are suggested to add other independent variables or mediation variables, such as paternalistic leadership and psychological capital to increase the depth and breadth of research.

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