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The relationship between consumer orientation, service value, medical care service quality and patient satisfaction: The case of a medical center in Southern Taiwan

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The competition among hospitals in Taiwan has become more and more intense, especially since National Health Insurance has come into effect. The number of so-called "mega" hospitals is growing while the number of patients is limited. In this competitive environment, hospitals have to carry out their business not only by maintaining the balance between quality and cost, but also by increasing interaction with their customers (patients). Customer-oriented services are what will give hospitals their core competitive edge for sustainable development. The key to maintain good relationships with customers is based on analyzing data related to customer satisfaction, strengthening medical service quality and providing tailor-made service. By doing so, hospitals can develop a more valuable relationship with their customers. This study was conducted by questionnaire. The purpose is to examine the correlation between customer orientation, medical service quality, service value and patient satisfaction in relation to medical service providers located in southern Taiwan. The data were analyzed with statistical methods such as Pearson's correlation analysis, linear structure relation and analysis of variance. Our findings indicate that: (1) Customer orientation, medical service quality and value of patients are positively related to each other and patient satisfaction is influenced by these three constructs and; (2) There are significant differences shown by patients with different perceptions of customer orientation in relation to service quality and patient satisfaction constructs and so on, but no difference in relation to service constructs.

Key words: Consumer orientation, service value, medical care service quality, patient satisfaction.

INTRODUCTION

The business environment of medical service providers is becoming more and more competitive. Nowadays, patients have more options than before. In today's medical service market, it is the buyer's market rather than the seller's market. In addition, running medical service business is more and more difficult because of high fixed cost, growing personnel expense, limited insurance benefit (e.g. only from government) and frequent medical malpractice claim, etc. In the face of various challenges, the medical service providers must realize exhaustively what our society and patients need and what they feel about medical service industry. In order to solve the problems mentioned above, medical service industry has to realize what patient-oriented value

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is and make efforts in upgrading the medical service quality. By doing so, they can create their niches and competitive edges.

Medical service providers belong to tertiary sector that focuses on interaction with people. How to make patients satisfied is medical service providers' priority. In the past, the medical service providers ran their business by adopting selling orientation rather than customer orientation approach. The supply is more than the demand in medical service market and the patient's perception is arising. Therefore, the medical service administrators should adopt customer orientation approach to run their business for creating value of patients and increasing patient satisfaction. By doing so, they will make the patients revisit and achieve their ultimate goal to sustainable development.

From the perspective of running business, customer orientation is not just only a slogan or trend. It is necessary belief for making customer revisit by increasing customer satisfaction. Because customer is always right in today's business world; therefore, customer orientation should be internalized into the nature of enterprises. By the employees' service delivery with customer orientation, enterprises can create customer-valued service for increasing customer satisfaction. The existence of enterprises is to create customers and try its best to meet customers' demand.

Customer satisfaction is one of the key factors for creating competitive edge. Based on the concepts mentioned above, the research purposes were:

1. To realize how customer orientation is important in medical service industry.
2. To understand patients' perception on medical service quality, including software and hardware facilities.
3. To discuss the correlation among customer orientations, medical service quality and service value in the medical service industry.
4. To discuss the influence of customer orientation, medical service quality and service value on patient satisfaction.

Customer orientation

Many scholars think that, customer-oriented culture is a must for successful organizations. (Athanassopoulous, 2000). In fact, customer orientation had been defined as the foundation of marketing theory and practice of marketing management before the marketing concept was introduced. (Jaworski and Kohli, 1993) Scholars' research found that, customer-oriented companies can increase customer satisfaction and value by creating customers' expected demand and by providing high quality commodity and service. Therefore, we can gather the implication that customer orientation is not only the basis for Learning Organization, but also the foundation

for creating more remarkable value and higher customer satisfaction (Slater and Narver, 1995). The term, customer orientation, was first introduced in 1979. It was evolved from "Customer orientation selling" Saxe and Weitz who was regarded as the pioneer to apply marketing concept to the interaction between sales person and customers.

Afterwards, Kotler (1980) proposed that, customer orientation is the marketing concept between front line sales person and customers. The marketing concept emphasizes that, the purpose of all activities in a company is to satisfy customers and to build a benefited long-term relationship with them. Hence, we can know that. the service personnel with high customer orientation can increase customer satisfaction by their service delivery (Dunlap et al., 1988). Furthermore, the customer-oriented service delivery can also help develop the long-term relationship between customers and enterprises (Saxe and Weitz, 1982) In this research, we applied customer orientation to medical service industry.

Service value

Levitt (1960) was the first scholar to propose the term-value in marketing field. His opinion was that, if a product can please customers, then it has its value to exist. While another scholar, Kotler (2003) thought that, marketing is a process of socialization and management. Individuals and groups can create and exchange products and value to meet their demands and desires of each other.

In the past, the literatures about value were based on the transaction value perspective, discussing that, there is a trade-off relationship between value and price and value is the perception that the price of product is cheaper than what they expected. If consumers feel that, the price of product is cheaper than what they expected, then the consumer value is created. The perspective is easily influenced by the value created from cheaper price. (Zeithaml, 1988). However, other benefits (e.g. quality of product, etc) are ignored. Therefore, Zeithaml (1988) stressed the relationship between the price and quality. In addition, quality is not only related with price but other factors; therefore, utility-oriented perspective is forged afterward. Unlike the previous two concepts, it is an overall evaluation that product value involves a trade-off between the customers receives (e.g. equality, benefits, utilities) and what customer gives up to acquire the benefits (Woodruff, 1997). Traditional utility perspective thought that, customer's product value is the maximization of utility and customers are always rational. The benefit of product is from the idea that product is the tool to achieve one's purpose. (Hirschman and Holbrook, 1982) However, even Hirschman and Holbrook questioned the utility perspective that, the consumers are really rational when they make the decisions to buy? Some scholars began to question the utility perspective

for the reason that, some important consumer's phenomenon, including internal joy, aesthetic enjoyment and emotional reaction and so on, may be ignored (Olshavsky and Granbois, 1979). The utility perspective does not cover the consumer's phenomenon; therefore, the utility perspective is not suitable for those products used to satisfy emotional wants (Hirschman and Holbrook, 1982). In addition, the experimental perspective was created afterward, which covered the issues about internal joy, aesthetic enjoyment, and emotional reaction (Hirschman and Holbrook, 1982).

The issues on values have changed over time, from the value of tangible commodity to value of service. Multi-Dimensional Scale was developed by Petrick (2002). At the beginning, we should review the literatures that created the five constructs of perceived innovative service value. The definitions of the five constructs were narrated in the following. Quality construct was defined as a consumer's judgment on the pleasure that excellence or superiority from a product or service. Emotional reaction construct was defined as a judgment on the pleasure that a product or service give a purchaser. The definition of monetary price construct was the price of a service encoded by the consumer. Behavioral price was defined as the non-monetary price for obtaining a service, including time, effort, etc. Reputation construct was defined as the prestige or status of a product or service. Petrick (2002) developed his multi-dimensional scale named SERV-PERVAL by consulting PZB model, which was the model to develop SERVQUAL Scale.

Except the literatures mentioned above in this research, we also took basic value perspective of Hirschman (1982) and Zeithamls (1988) into consideration. Besides, we developed the evaluation of customer value model based on rational perspective, experimental perspective, perceived benefit and perceived costs theories (Zeithaml, 1988; Woodruff and Gardial, 1996; Petrick, 2002).

Medical service quality

In the past, the definition of medical service quality was very narrow, which meant that, patient's only focused on physician's expertise or nursing. However, the concept has changed over time. Nowadays, the medical service quality not only focuses on medical cares, but also transforms to be patient-centered (Bath, 2008). What patients think is also the hospital's concern and is one of the indicators of medical service quality. The new medical service quality concept tells us that, administrative efficiency and patient satisfaction are also regarded as the indicators of medical service quality. Therefore, not only the medical cares quality, but also the other factors such as administrative service and so on should be regarded as medical service quality.

The medical services quality could be very comprehensive. In addition, because the medical cares service is intangible and highly specialized, patients are not easy to access medical information. Therefore, there is no standard way to evaluate medical service quality, although, we have various ways to do it today.

Patient satisfaction

The study on satisfaction can be used for all trades and profession. Nowadays, many scholars apply satisfaction concept to medical service industry; therefore, the term, patient satisfaction is created. Patient satisfaction is an important indicator for medical service industry. For hospitals, patient satisfaction is an effect indicator (Donabedian, 1996) to evaluate medical service quality. For patients, patient satisfaction is an indicator to choose medical service provider (Hansagi et al., 1992). Furthermore, patient satisfaction can help hospitals, changing the medical process for satisfying more patients (Abramowitz, 1988).

According to previous literatures, we can realize that expectation, perception and medical cares experience are important factors to influence patient satisfaction. Medical service providers need to understand patient expectation and try to satisfy them. To achieve this goal, patient satisfaction can be used as a tool to evaluate medical service quality. Scholars also thought that, medical service quality can be told from patient satisfaction (Mahon, 1996). They reiterated on how important patient satisfaction is for medical service quality. Therefore, patient satisfaction was applied to evaluate medical service quality of a hospital in this research.

The relationship between customer orientation, service quality, service value an satisfaction

To date, there are many studies on service quality, service value, and satisfaction such as Zeithaml's Means-end Model, which was used to analyze the relationship among price, quality and value in drink industry. In Means-end Model, Zeithaml found that, the process of consumer's perception can be divided into three levels (low-level attribute, perception of lower-level attribute and high-level attribute), which was the pioneer study on the process of consumer's perception and laid the foundation for follow-up research.

Cronin and Brady (2001) also proposed their research on how customer orientation influences customer's perceived service quality and behavior intention, which indicates that, customer orientation influences customer's perceived service quality directly and service quality influences customer value positively. According to above discussion, we know that, service quality of enterprise is directly or indirectly influenced by customer orientation, which is to say, service quality is the best way to evaluate
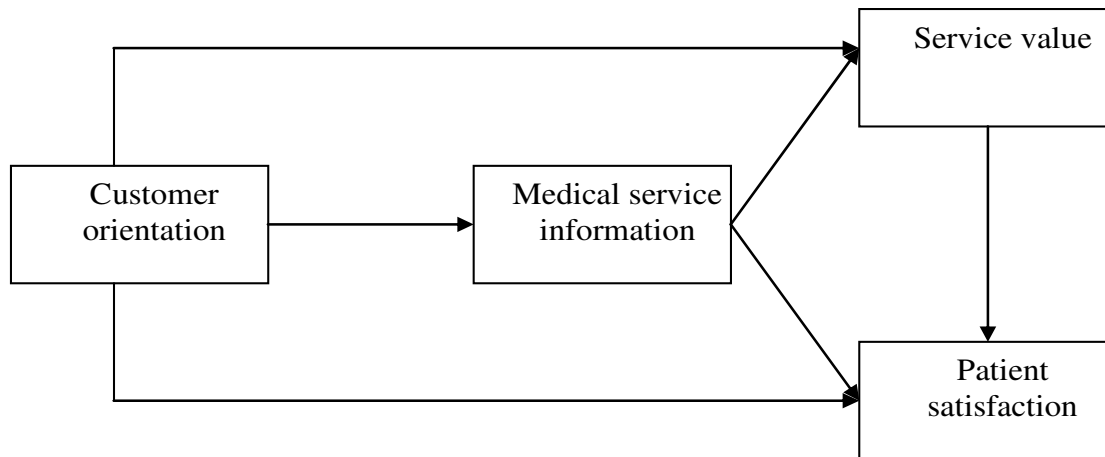
Figure 1. The influence of customer orientation on consumer's behavior intention.

customer orientation. Consumers evaluate and created value by service delivery and customer created value by service delivery is the basis to evaluate customer satisfaction. This route-purpose approach was the reference direction for developing our research structure.

RESEARCH STRUCTURE AND METHOD

The purpose of this research is to explore the relationship among service quality, service value and patient satisfaction, when regional hospitals run their business with customer orientation approach. Our research structure is based on "The influence of customer orientation on consumer's behavior model" (Figure 1) proposed by Cronin and Brandy, 2001; Wu and Li, 2007.

Hypotheses

Enterprises have gradually transformed from production orientation and selling orientation to today's customer orientation, which means enterprises, should be devoted to any kind of activities that can satisfy their customers. The concept of customer orientation is especially important for service industry such asour study object regional hospitals. The regional hospitals apply customer orientation to a brand-new marketing strategy, which is devoted to the design and output of medical service quality. Undoubtedly, customer orientation is the only way for service industry to keep their competitive edges. According to previous literatures, we found that, customer orientation, service quality and customer satisfaction are positively related with each other (Cronin and Brady, 2001), which means that, more customer orientation creates higher service quality and higher service quality increases more customer satisfaction.

At the very beginning, the primary concern of customer orientation is to understand what consumers need. Narver and Slater (1990) emphasized that, the primary goal of customer orientation is to create value for customer and to discuss customer's value chain, including their demand at present and in the future. Furthermore, if enterprises can not continue to provide more value than they did before, their customer's reliance on them will gradually decrease over time. In this situation, the upgrade or innovation of service quality can highlight the significance of

customer value.

Sweeney et al. (1997), also explained the relationship among value, price, quality and satisfaction. They found that, customer value is decided by price and quality. In addition, customer value and customer satisfaction are positively related, and service quality and perceived value are positively related as well.

In order to confirm the relationship among perceived value, service quality, service value, customer satisfaction and consumer's behavior intention and so on, Cronin et al. (2000) investigated six different service industries including spectator sport, participation sport, entertainment, health care, long distance carriers and fast food industries. In their research, they confirmed that service quality and service value are positively and significantly related with each other.

Cronin and Brady (2001) went further to discuss the relationship among customer orientation, service quality and service value. In his research, the influence of customer orientation on perceived service quality and consumer's behavior intention, he pointed out that, customer's perceived service quality would be directly influenced by customer orientation and customer value would be positively influenced by service quality. Each two of the three constructs are related and was confirmed by their study. Based on the above concepts, the hypothesis, H1, was formed.

H₁: Medical service providers' customer orientation, medical service quality and service value are correlated.
H₁.1: Customer orientation and medical service quality are positively correlated.
H₁.2: Customer orientation and service value are positively correlated.
H₁.3: Medical service quality and service value are positively correlated.

Service industries can increase customer satisfaction and develop long-term relationship with customers by customer-oriented culture. Therefore, an effective customer-oriented culture develops based on customer's demand and positively influences service quality (Hoffman and Ingram, 1992) value (Slater and Narver, 1995) and customer satisfaction. According to literatures, scholars confirmed repeatedly that, the relationship among service quality, value, satisfaction and consumer's behavior intention are positively significant.

Cronin et al. (2000) discussed how service quality and value influence customer satisfaction and consumer's behavior intention in their research. They also found the linear influence of service

quality and service value on consumer's behavior intention.

In addition, to direct influences, indirect influence was found in the model as well. If the indirect influences are added into the model, then the model will be more complete.

There are three kinds of indirect influence: service quality, service value and consumer's behavior intention; service quality, customer satisfaction and consumer's behavior intention; service value, customer satisfaction and consumer's behavior intention. The indirect influence is significant in the overall model.

Research from Donabedian et al. (1988) also found that, medical service quality and patient satisfaction are positively and significantly correlated and the relationship between patient satisfaction and patient's intention of revisit as well, which means that, the better the patient's evaluation on medical service quality, the better the patient satisfaction and the stronger the intention of revisit .

Cronin and Brady (2001) went further to discuss the relationship among customer orientation, customer service, service quality and customer satisfaction. They found that, service quality is directly or indirectly influenced by customer orientation, which is to say, service quality is the best way to evaluate customer orientation. Consumer evaluates value created through service delivery and the customer value is the basis to evaluate customer satisfaction. Based on the above concept, the hypothesis, H2, was formed.

H₂: Customer orientation, medical service quality, service value and patient satisfaction of medical service providers are significantly influenced with each other.
H₂.1: Medical service quality is significantly and positively influenced by customer orientation.
H₂.2: Service value is significantly and positively influenced by customer orientation.
H₂.3: Patient satisfaction is significantly and positively influenced by customer orientation.
H₂.4: Service value is significantly and positively influenced by medical service quality.
H₂.5: Patient satisfaction is significantly and positively influenced by medical service quality.
H₂.6: Patient satisfaction is significantly and positively influenced by service value.

Jaworski and Kohli (1993) found that, customer-oriented companies can increase customer value and satisfaction by utilizing products and service in response to customer's demand. Slater and Narver (1995) also implied that, customer orientation is better than selling orientation and can increase customer value and satisfaction. Saxe and Weitz (1982) thought that, high customer orientation is easier to increase customer's long-term satisfaction. Furthermore, according to Cronin and Brady (2001), customer orientation, service quality, customer value and customer satisfaction are positively correlated, which means that, the more customer orientation, the higher service quality; the more customer service, the higher customer satisfaction. The hypothesis, H3, was formed based on the question that, what is the influence of different perceived customer orientation on service quality and customer satisfaction.

H₃: High customer orientation and low customer orientation are significantly different on service quality, customer value and customer satisfaction constructs.

Sampling design

The study objects (Table 5) were Chimei hospital (Tainan County), Chang Gung Memorial Hospital (Kaohsiung County) and Kaohsiung medical university hospital (Kaohsiung City) in southern Taiwan. 400 questionnaires were distributed to the patients of these three medical centers in the doorway. 318 effective questionnaires were

returned and the rate of effective questionnaires was 79.5%.

Reliability and validity

The internal consistency reliability analysis is measured by Cronbach's α with a 0.7 guideline value. The result is listed in Table 6. According to Table 6, the α values of all variables are more than 0.7, which is an acceptable standard. Each item is significantly related with correlation coefficient of total variables. Therefore, each item has the ability to interpret the variable.

Variables and operational definition

The relationship among customer orientation, medical service quality, service value, and patient satisfaction was discussed in this research. The terms about operational definition were listed as follows.

Customer orientation

The SOCO Scale introduced by Saxe and Weitz (1982) was used in this research. The scale was redesigned to evaluate from the perspective of consumer because of that, it was designed to evaluate the customer orientation of sales people at the very beginning (Cronin and Brady, 2001). Taiwanese scholars translated the scale into Chinese and amended it, based on the characteristics of medical to serve industry for domestic use. The variables of customer orientation were listed in Table 1.

Service value

According to literatures, the definition of customer value is the gap between what customers get and what customers give up in the process of service delivery. Based on Petrick's (2002) Multi-Dimensional Scale, service value was divided into 4 constructs of attribute benefit, experiential benefit, money costs and non-money costs in this research. The definitions about these 4 constructs were listed in Table 2.

Medical service quality

According to the above-mentioned literatures, medical service quality is usually evaluated based on Table 3 of Donabedian's (1988) Structure- Process- Outcome model.

Patient satisfaction

According to the above-mentioned literatures, 8 patient satisfaction constructs were listed in Table 4.

Empirical analysis

In this research, we used linear structural equation model to examine research model. The process to examine the research model was divided into two stages: Measurement Model and Structural Model respectively. If the results are not significant in the two stages, the model will be corrected.

Linear structure analysis

The measurement model analysis of each construct and

Table 1. Operational definitions of customer orientation.

Construct	Operational definitions
Customers first	The medical service providers can put patient's need in the first place and try their best to help their patients.

Source: Organized by authors.

Table 2. Operational definitions of service value.

Construct	Operational definitions
Attribute benefit	The items are related with competitors and the perceptions of the items are on materiality level, which means the utility is generated from concrete service. For example: Service quality and category of service, facilities of hospitals and so on.
Experiential benefit	The items are related with competitors and the perception of the items are on psychological level including abstract concept. For example: the ambiance and attractiveness of hospitals and the way to evaluate their patients, etc.
Money costs	The items are related with medical service price including drug price, registry fee and other fees, etc.
Non-money costs	It means patient's non-money cost including convenience, rage, disappointment and time cost, etc. This concept is so-called sacrifice of service.

Source: Organized by authors.

Table 3. Operational definitions of medical service quality.

Construct	Operational definition
Structure	The items are related with any thing about medical cares, but not medical cares itself, including environment, facilities, administrative management, numbers, quality and training of support staffs, etc.
Process	It means all direct or indirect medical cares and other supplementary activities on patients including diagnosis, prescription, hospitalization and operations, etc.
Outcome	It means patient's health condition before and after diagnosis, including heath and improvement condition after operation and patient satisfaction, etc.

Source: Organized by authors.

Table 4. Operational definition of patient satisfaction.

Construct	Operational definition
Facilities	Scale of hospitals, completed and advanced facilities. Convenience, close to patient's home.
Environment	Internal environment, internal space design and arrangement, amenity, environment and hygiene, ambiance, facilities.
Nurses' attitude	Attitude, kindness and expertise.
Support staffs'attitude	Good attitude of support staffs.
Physicians' attitude	Attitude in attending to customers, reputation and attitude, medical ethics and attitude, narration of patient' s condition, expertise.

Table 4. Cont'd

Service flow path	Speed and efficiency.
Charges	The charge at one's own expense is the amount of medicine.
Diagnosis results	Are the physical and mental conditions improved? he follow-up diagnosis.

All variables in this research were scored on a Likert 5 scale.

Table 5. Objects of this survey.

Location	Hospital	Address	Total questionnaires	Effective questionnaires
Tainan County	Chimei hospital	No.901,Zhonghua Rd., Yongkang City, Tainan County 710, Taiwan (R.O.C.)	133	103
Kaohsiung County	Chang Gung Memorial Hospital	No.123, Dapi Rd., Niaosong Shiang, Kaohsiung County 833, Taiwan (R.O.C.)	134	110
Kaohsiung City	Kaohsiung medical university hospital	No.100, Ziyou 1st Rd., Sanmin District, Kaohsiung City 807, Taiwan (R.O.C.)	133	105

Source: Organized by authors.

Table 6. Cronbach α of each construct after adjustment.

	Construct	Numbers of Items	Cronbach α after adjustment
Customer orientation	Customers first	12	0.9025
	Selling orientation	12	0.8379
Customer value	Attribute benefit	5	0.8512
	Experiential benefit	5	0.8876
	Money costs	4	0.8860
	Non-money costs	4	0.8019
Medical service quality	Structure	10	0.9511
	Process	20	0.9298
	Outcome	5	0.8841
Patient satisfaction		8	0.8888

confirmatory factor analysis was conducted to test the convergent and discriminant validity. The result was listed in Table 7.

The measurement model analysis of overall model

In this research, we organized the above-mentioned constructs to form an overall model first. After that, measurement model analysis of overall model was done. The result was listed in Table 8.

RESULTS

Evaluating the overall model fit

According to the calculation of AMOS 4.0, of a statistical Software, we get the following Figure 2 result, effective sample size: 318; χ^2 value: 117.450; χ^2/df value: 4.195; GFI value: 0.934; NFI value: 0.895; CFI value: 0.917. All values are close to the ideal value 0.9. RMR value is 0.033. The overall model fit is adequate and acceptable. Therefore, the model of this research is supported.

The correlation analysis of customer orientation, medical service quality and service value

Pearson's correlation analysis was conducted to confirm our research hypotheses H1, H1.1, H1.2 and H1.3, discussing the correlation of customer orientation;

Table 7. Evaluating model fit.

Absolute goodness-of-fit index						Relative goodness-of-fit index	
	x^2	x^2/df	RMR	AGFI	GFI	NFI	CFI
Customers first	42.728	4.748	0.031	0.953	0.956	0.952	0.961
Physician-patient relationship	57.500	2.879	0.045	0.923	0.957	0.969	0.979
Attribute factor	3.592	1.796	0.007	0.971	0.994	0.987	0.994
Experiential factor	38.004	7.601	0.026	0.872	0.957	0.932	0.940
Money factor	26.868	13.434	0.032	0.886	0.957	0.948	0.951
Non-money factor	18.993	9.496	0.039	0.848	0.970	0.945	0.950
Structure factor	177.693	8.885	0.069	0.809	0.894	0.888	0.899
Process factor	206.501	7.648	0.036	0.890	0.874	0.878	0.891
Outcome factor	35.791	7.158	0.024	0.868	0.956	0.966	0.971
Patient satisfaction	60.035	6.671	0.023	0.860	0.940	0.876	0.891
Test standard	The smaller the better	Within 5	Less than 0.05			More than 0.9	

Table 8. The measurement model analysis of overall model.

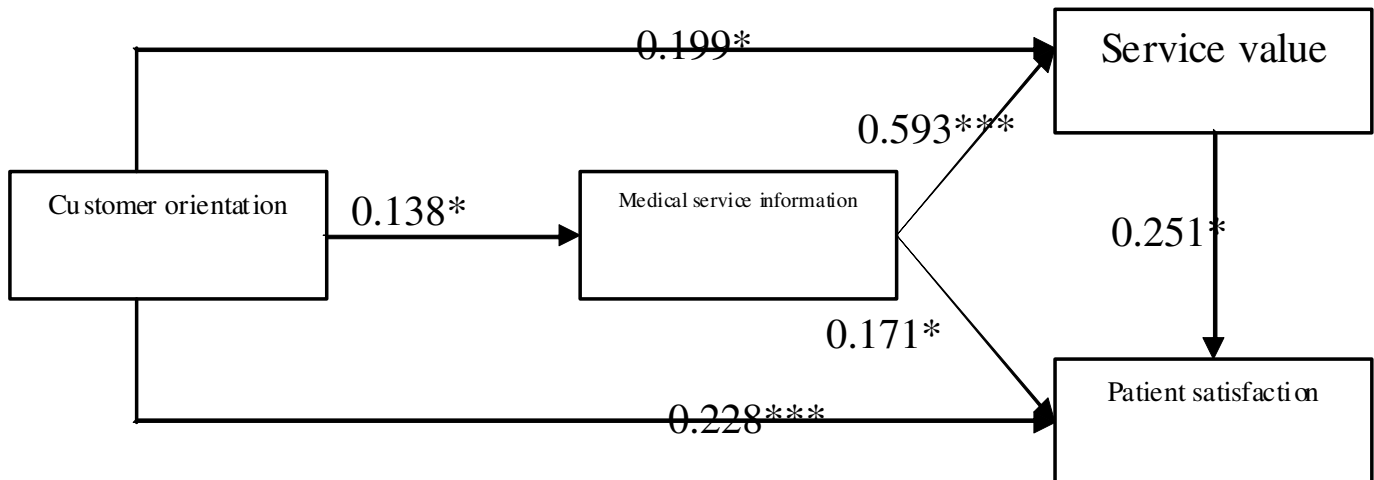| Absolute goodness-of-fit index						Relative goodness-of-fit index	
	x^2	x^2/df	RMR	AGFI	GFI	NFI	CFI
Index value	123.483	4.116	0.032	0.873	0.931	0.890	0.913
Test standard	The smaller the better	Within 5	less than 0.05			More than 0.9	

Figure 2. The calculation results of statistical software.

Table 9. Customer orientation, medical service quality and service value correlation matrices.

	Customer orientation	Medical service quality	Service value
Customer orientation	1.000		
Medical service quality	0.179*	1.000	
Service value	0.125*	0.645**	1.000

P.S. ***p= 0.001, **p= 0.01, *p= 0.05.

Table 10. Total effect analysis of standardized structural model.

Route effect	Standard coefficient	P value	Significance
Customer orientation---medical service quality	0.138	0.040	*
Customer orientation---service value	0.199	0.018	*
Customer orientation---patient satisfaction	0.228	0.001	***
Medical service quality---service value	0.593	0.000	***
Medical service quality--- patient satisfaction	0.171	0.050	*
Service value--- patient satisfaction	0.251	0.027	*

P.S. ***p= 0.001, **p= 0.01, *p= 0.05.

Table 11. Total effect analysis of standardized structural model.

Direct route effect	Standard coefficient	Indirect route effect	Standard coefficient
Customer orientation---medical service quality	0.138	Customer orientation---service value	0.175
Customer orientation--- service value	0.024	Customer orientation—patient satisfaction	0.216
Customer orientation--- patient satisfaction	0.012	Medical service quality--- patient satisfaction	0.120
Service value--- patient satisfaction	0.251		
Medical service quality--- patient satisfaction	0.051		
Medical service quality---service value	0.593		

medical service quality and service value (Table 9). According to Table 9, patient's perceived service value is significantly and positively correlated with customer orientation and medical service quality. The result implies that, medical service providers can design customer oriented service to meet patient's demand for creating customer value. Furthermore, medical service providers can also strengthen their medical service quality by monitoring quality rigorously and by providing service with good attitude. Besides, forced sales should be avoided as possible as they can.

Our research result was organized in Table 9. The result implies that, customer orientation can be applied to design of medical service quality or creation of service value. Tables 4 and 3 show that, each of the two constructs are positively correlated, implying that, when arranging strategies or designing service output, customer orientation should be put into the first place. By providing patients with high medical service quality and satisfied service value, medical service providers can keep their competitive edges to run long-term business.

Patient satisfaction is significantly influenced by customer orientation, medical service quality and service value

According to Table 10, customer orientation is directly influenced by medical service quality and the standard coefficient is 0.138; customer orientation is directly influenced by service value and the standard coefficient is 0.199; customer orientation is directly influenced by patient satisfaction and the standard coefficient is 0.228;

medical service quality is directly influenced by service value and the standard coefficient is 0.593; medical service quality is influenced by patient satisfaction and the standard coefficient is 0.171; service value is influenced by patient satisfaction and the standard coefficient is 0.251.

This research went further to study the influence of direct and indirect effect. The result was listed in Table 11. Service value is directly influenced by customer orientation and the standard coefficient is 0.024, but it goes up to 0.175 for the influence from medical service quality; patient satisfaction is directly influenced by customer orientation and the standard coefficient is 0.012, but it goes up to 0.216 for the influence from medical service quality; patient satisfaction is directly influenced by medical service quality; and the standard coefficient is 0.051, but it goes up to 0.120 with razor margin for the influence from service value.

High customer orientation and low customer orientation are significantly different on service quality, customer value and customer satisfaction

Based on above-mentioned research results, which tell us that, the customer orientation of medical service providers would influence medical service quality, service value and patients satisfaction. We divided customer orientation into two groups (e.g. high customer orientation and low customer orientation) by cluster analysis of SPSS10.0 and went further to discuss the difference between medical service quality, service value and patient satisfaction and so on with ANOVA.

Table 12. ANOVA table of medical service quality, service value and patient satisfaction.

Variables	P value	Significance	Analysis result
Medical service quality	0.028	*	Different
Service value	0.092	non-significant	Non-different
Patient satisfaction	0.000	***	Different

P.S. ***p= 0.001, **p= 0.01, *p= 0.05.

According to Table 12, different levels of customer orientation are significantly different on medical service quality and patients satisfaction, but the difference is narrow on service value. Therefore, H3 (High customer orientation and low customer orientation are significantly different on service quality, and customer value and customer satisfaction dimensions) is partly sustained.

CONCLUSION AND SUGGESTIONS

The hypotheses formed at the beginning of this section were examined based on data collected by questionnaire. The positive correlation of customer orientation, medical service quality and service value is in accordance with previous literature results (Narver and Slater, 1990; Cronin et al., 2000; Cronin and Brady, 2001). The customer orientation approach, as evidenced by customers first, hospitals adopt, giving more service quality to patients can help hospitals create positive customer value and achieve their goal with a hospital with good patient satisfaction. In other words, customer orientation and medical service quality are correlated. Furthermore, if service providers take customer orientation seriously, they must design their service output based on the patient's need. To increase the patient's perceived value and to present the hospital's business ideal are the key points to overall marketing management.

Therefore, customer orientation and service value are correlated. Medical service providers can understand their patient's perceived service value through service delivery. The more medical service providers care about medical structure, medical process, medical outcome, and so on, the easier it is to increase the patient's perception of service value. Therefore, service quality and customer value are correlated. The results of this study show that, patient satisfaction is positively influenced by customer orientation, medical service quality and service value. This is consistent with observations obtained by other researchers (Slater and Narver, 1995; Cronin et al., 2000; Cronin and Brady, 2001). The more medical service providers care about customer-oriented behavior, placing the "customer first", the more patient satisfaction will increase. In addition, the more medical service providers' care about medical service quality such as medical structure, medical process, medical outcome, and so on, the more patient

satisfaction will increase. Furthermore, the more medical service providers' care about service value, such as providing services that can increase patient utility, the more patient satisfaction will increase. Customer-oriented medical service quality can greatly increase service value and patient satisfaction, which is to say, without customer orientation, medical service quality does little to help increase patient satisfaction. The implication is that medical service providers should put customer orientation first when making plans to improve medical service quality. Thus, medical service providers can increase patient satisfaction by applying customer orientation in their service and by providing services that can increase patient's perceived value.

Furthermore, medical service providers can also increase patient satisfaction by emphasizing customer orientation in medical service quality such as medical structure, medical process and medical outcome. In short, customer orientation should be the first step to provide service and for creating service value. In addition, medical service quality is not only the medium for realizing the customer orientation ideal and the tool for creating service value, but also an important construct to increase patient's perceived satisfaction. We suggest that, customer orientation, medical service quality and service value should be integrated into the service delivery process and attitude of front-line staff. By doing so, they can tailor service to meet the demands of different consumers. That medical service quality and patient satisfaction are influenced by different perceptions of customer orientation which is obvious in this research, as in the literature (Cronin and Brady, 2001).

The result implies that medical service quality is directly influenced by customer orientation, and patient satisfaction is influenced by medical service quality. Therefore, patient satisfaction is indirectly influenced by customer orientation. The results show no difference for the service value construct. We can infer that, the influence of high customer orientation and that of low customer orientation are similar; therefore, we cannot tell the difference between them. We go further to discuss the reason why the difference between high customer orientation and low customer orientation is so narrow, and the reason is related to the price factor of service value. The influence of price factor on patients depends on the patient's emotions of that day, which are not always the same. That is why there is no difference between high customer orientation and low customer

orientation. However, it does have some influence on patient satisfaction, but this influence is minor compared to customer orientation and medical service quality. Tangible products, such as the facilities of medical service providers, are easy to copy by competitor, but intangible service, such as business ideals, staff attitude and so on, are not easy to copy. If medical service providers can strengthen their ability to design customer-oriented service and business culture, they can keep their competitive edge and differentiate themselves from other hospitals.

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REFERENCES

Athanssopoulos AD (2000). Customer satisfaction cues to support market segmentation and explain switching behavior. J. Bus. Res. 191-207.
Bath PA (2008). Health informatics: current issues and challenges. J. Inf. Sci. 34(4): 501-518.
Cronin JJ, Brady MK, Hult GTM (2000). Assessing e effect of quality, value and customer satisfaction on consumer behavioral Intention in service environment. J. Retail. 76: 193-218.
Cronin JJ, Brady MK (2001). Some new thought on Conceptualizing perceived service information: A hierarchical approach. J. Market. 65(3): 34-49.
Donabedian A (1996). Evaluating the quality of medical care. Milbank Memorial Fund Quarterly 44: 166–206.
Dunlap BJ, Doston M, Chambers TM (1988). Perceptions of real estate brokers and buyers: A sales orientation, customer orientation approach. J. Bus. Res. 17: 175-187.
Hirschman EC (1982). Hedonic Consumption: Emerging Concepts, Methods and Propositions. J. Market. New York: Summer 46(3): 92-102.
Hansag H, Carlsson B, Brismar B (1992). The urgency of care need and patient satisfaction at a hospital emergency department. Health Care Manage. Rev. 17(2): 71-75.
Hoffman KD, Ingram TN (1992). Service provider job satisfaction and customer-oriented performance. J. Serv. Market. 6(2): 68-78.
Jaworski B, Ajay K (1993). Market Orientation: Antecedents and Consequences. J. Market. 52: 53-70.
Kotler P (1980). Marketing Management: Analysis, Planning and Control, 4th ed., Englewood Cliffs, N.J.: Prentice- Hall, Inc.
Kotler P (2003). Marketing Management (11th ed.): Upper Saddle River. NJ: Person Educations p. 411.
Levitt T (1960). Marketing myopia. Harv. Bus. Rev. 38: 45-56.
Mahon P (1996). Fancy. Artichoke: Writings About the Visual Arts 8(3): 52-54.
Narver JC, Slater SF (1990). The effect of a market orientation on business profitability. J. Market. 54: 20-35.
Olshavsky RW, Granbois DH (1979). Consumer decision making-fact or fiction. J. Consum. Res. 6(2): 93.
Petrick JF (2002). Development of multi-dimensional scale for measuring the perceived value of a service. J. Leisure Res. 34(2): 119-134.
Saxe R, Weitz Barton BA (1982). The SOCO Scale: A measure of the customer orientation of salespeople. J. Market. Res. 19: 343-351.
Slater SF, Narver JC (1995). Market Orientation and the Learning Organization. J. Market. 59: 63-74.
Sweeney S, Johnson S (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment, J. Retail. Greenwich. 75(1): 77-105.
Woodruff RB, Gardial SF (1996). Know your Customer: New Approaches to Understanding Customer Value and Satisfaction. Cambridge, MA: Blackwell Publishers.
Woodruff RB (1997). Customer value: The nest source of competitive advantage. J. Acad. Market Sci. 25: 129-153.
Wu WY, Li CY (2007). A contingency approach to incorporate human, emotional and social influence into a TAM for KM programs. J. Inf. Sci. 33(3): 275-297.
Zeithaml VA (1988) Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. J. Market. 52: 2-22.