Interaction drives marketing: The service innovation case

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Abstract—In order to understand the practical application of interactive marketing in the field of marketing, this study through the medical material manufacturers, to understand the patient (family members) and physician in the process of reconstruction of the craniofacial, especially the hospital to help use the system to reshape the patient's skull Yan. Hospital in the patient demand situation, to take interactive marketing, in addition to strengthening the accuracy of surgical preparation, the more important is to obtain the trust of patients or families of patients, the whole, the study found that the hospital using interactive marketing Can affect its business model, will also help improve the relationship between medical and health, to make it transparent. In particular, physicians gradually abandon foreign materials and attention to customized needs, will help the expansion of the domestic surgical medical materials market and surgical technology more sophisticated mature. Even this research, through the Ministry of Economic Science and Technology R & D projects, in-depth understanding of the status of the industry, more conducive to research process and the results of reliability, but also provide industry and academia follow-up research basis.

Keywords: interaction, marketing, service innovation

I. INTRODUCTION

The medical market is a thriving industry in Taiwan, especially in the orthopedic materials market. In view of the increase in the number of car accidents and cancer in Taiwan, surgical orthopedic demand is showing an increasing trend of output value. However, for most patients, most of the medical devices used are medical devices imported from Western countries when doctors perform surgery on patients, and it is also less compliant with our skeletons.

Therefore, if a physician is able to present the material required for surgery to a patient or family member in a transparent manner, it may be possible to significantly reduce the distrust of the patient or family member of the patient or to raise the patient or patient Family by passive or negative attitude, to become positive. This study is aimed at Taiwan's orthopedic medical equipment market. There are many types of international medical programs in Taiwan, among which there are five major strengths for craniofacial reconstruction surgery, liver transplantation, cardiovascular surgery, craniofacial reconstruction surgery, artificial reproductive technology, cardiovascular therapy, arthroplasty, and carotid artery bypass surgery, cardiac stenting, Joint replacement, etc. (Industrial Technology Research Institute, 2012). Taiwan's international medical program is complete, making Taiwan's medical and neck and neck to keep pace with Europe and the United States. At present the government to the five major medical strengths: artificial joint replacement surgery, living liver transplantation, cardiovascular treatment, craniofacial reconstruction surgery, artificial reproductive technology as the focus of international medical development.

Therefore, this study is based on this problem, to explore and solve, looking forward to the establishment of human orthopedic medical device real-time interactive design mechanism to become a bridge between manufacturers and doctors to reduce the response time and shorten the medical equipment manufacturing time. This mechanism under the two-way communication, manufacturers and doctors to coordinate with each other, the value of the service created by the higher, relative to the quality of care can also be improved. Under the two-way communication, there was between manufacturers and doctors to coordinate this study through interactive marketing to observe whether it will affect the business model.

II. LITERATURE

A. Interactive marketing

Active marketing is the need for interaction between the two sides in order to meet their own needs, and exchange is the core of marketing essence, may include products or services. Therefore, as long as there is interaction between the two sides of the transaction, can be called marketing activities Gibbs (1996). Interactive marketing is the concept of marketing policy based on direct interaction with existing and potential customers and its implementation Molenaar (1995). Creating a marketing model that communicates directly with consumers and uses interactive media can be simply defined as "interactive marketing" Allen (2001). Interactive marketing is an interactive and individual additional activity that integrates and strengthens this network relationship and confirms, maintains, and establishes relationships with individual customers, and through interactive, personalization and long-term exposure to customer value. Marketing activities Shani and Chalasani (1992).

B. Business model

Slywotzky (1996) points out that the business model is the sum of the following processes: how the company chooses the target customers, defines them in a way that can present the value of the company, and integrates the resources and
markets them into the market, creating benefits for customers and capturing profits. Johnson et al. (2008) divides the business model into four elements: the customer value proposition, the profit formula, the key resource, the key process, the four interconnected elements, value. Petrovic et al. (2001) argue that the business model describes the logic of a business system for creating values that are hidden behind the real process.

III. Method

A. Samplings

Samples from Taiwan's physicians, medical equipment manufacturers and patients. As the size and size of imported medical equipment does not meet the majority of domestic patients, this study and then planning customization of craniofacial plastic interactive marketing, to provide manufacturers and doctors between the communication channels, and to achieve custom design and production. Customize the product so that the medical device meets the needs of every patient.

The results of this study show that the industry through the interactive marketing industry expertise integration, the use of effective information delivery to manufacturers, physicians and patients to share information to achieve interactive marketing. In particular, through interactive marketing to customers and manufacturers to participate in industrial activities, jointly responsible for the manufacture of enterprise-related activities. Therefore, this interactive marketing is more complete, and through this study to be further improved and contributed. The sample included 50 respondents from men and women in Taiwan, and received a questionnaire survey of the study during the retrospective needs of the subjects.

B. Procedure

Research design should avoid systematic error, that is, common method variation. In this study, Podsakoff, MacKenzie and Podsakoff (2003) were used, and two methods were used in advance. The first is to isolate the data collection method, that is, at the same time the same sample sampling, as a collection of data collection. Furthermore, the questionnaire design method, from the measurement tool design and layout to reduce the response to the error, the use of the title meaning of the hidden, the variables of different variables randomly mixed to avoid the problem and other methods. In the case of ex post facto inspection, Harman's single factor post hoc analysis was used as suggested by Anderson & Bateman (1997). The exploratory factor analysis, the non-axis factor load extraction single factor explains the limited variability (18%), and the explanatory release of the factor does not appear to be centralized.

Therefore, we determine that the same data (patient, physician) source error (common source error) does not seriously distort the results of the study, that is, in the prior control and after the test results, type I error occurs less likely.

Furthermore, according to the multicollinearity criteria of Kennedy (1993), the VIF values of the variants in this study were not more than 10, and the independent variables did not have serious collinearity and were an important indicator of the interference effect (Dionneia et al., 2005). The Durbin-Watson value shows a self-variable residual in a reasonable range. It can be seen that the common method error of this study is less likely. Again, verify the relationship between the variable and the disturbance variable, that is, interactive marketing and gender, product relationship. Finally, we study the relationship between the independent variables and the disturbance variables, that is, the interaction between the interactive marketing and the business model. These variants are estimated by SPSS version 12.01. The variance analysis is based on individual averages for comparative analysis.

IV. Result

The results show that the independent variables have a significant correlation with the dependent variables (p<0.01), including the interaction between the product marketing (r = .49 **) and the business model. Furthermore, there is a significant correlation between the product disruption variable and the dependent variable (p<0.01), ie, the product has a significant positive correlation with the business model (r = .20 **).

Further from the stepwise regression analysis, the role is to control the variables. First, the relationship between the self-variable and the dependent variable is estimated by adding the control variable in the model. Interactive marketing [β = .78; Δ R2 = 68% **] has a significant positive impact on the business model.

Therefore, H1 gets support. And there is a significant positive effect on the relationship between the independent variable and the disturbance variable, the interaction between the marketing and the product [β = .19; R2 = 4% ***]. Finally, the effects of the pattern estimation strategy are on the independent variable and the dependent variable. There is a significant positive relationship between interactive marketing and product interaction. [β = SS (t2) x DP = .56; Δ R2 = 3% ***]. The interference effect is very obvious, when the product and can be customized, and through the platform with the patient or physician communication, can be described as business model to bring better development.

V. Conclusion

Based on the study motivation and purpose, this study draws the following conclusions after questionnaire analysis. We can understand the business process, value creation database management and communication, to strengthen communication with customers and enhance customer loyalty. In the case of the original foreign manufacturers specifications often do not match with the bones of the people, and doctors in the operation of the bone to do the cutting action has been in line with the needs of patients, and through service innovation, increase manufacturers and doctors instant communication, shorten the product process...
to improve Time efficiency, and greatly reduce the risk of surgery and the risk of infection or death. In addition, manufacturers can also through the construction of the database way to collect more patient information and the doctor's design habits, the future if there are related cases, manufacturers can directly pass the previous data to the doctor to confirm, change the action, but also can improve Time efficiency.

REFERENCES


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