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FACTORS DETERMINING PHYSICIANS' LOYALTY TO PHARMACEUTICAL BRANDS IN PESHAWAR

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ABSTRACT

The present study on Factors Determining Physicians' Loyalty to Pharmaceutical Brands in Peshawar was undertaken with purpose to determine the relationship between physicians' loyalty to pharmaceutical brands in the context of product quality, brand image and regular visits of medical representatives. Product quality, brand image and regular visits of medical representatives were three independent variables and Physicians' Loyalty was the dependent variable of the study. A sample size of 120 out of 550 doctors as respondents were selected through simple random sampling practicing in Peshawar city. Data was collected through a five-point Likert scale questionnaire. There were total 16 questions in the questionnaire and each variable contained 4 questions. The data was analyzed using descriptive statistics, factor analysis, Pearson's correlations and multiple-regression through SPSS. The results of the research revealed that regular visits of medical representatives have the most significant and positive relationship with physicians' loyalty to pharmaceutical brands. Product quality and brand image also showed significant positive relationship with physicians' loyalty to pharmaceutical brands. Organizations can enhance physician's loyalty by focusing product quality, brand image and continuous interactions of medical sales representatives with physicians, which in turn, will be helpful in achieving good market share and increased revenue.

Keywords: Product Quality, Brand Image, Regular Visits of Medical Representatives, Physicians' Loyalty, Pharmaceutical Brands, Brand Loyalty

INTRODUCTION

In view of the fact that the world has turned into a global marketplace, therefore competition among enterprises has turned out to be more exceptional and thus to take hold of challenging place in the marketplace, specialists propose and employ different strategic plans and policies to ensure a firm's achievement for a long-haul and one of the vital strategy is building and sustaining customer's brand loyalty. Loyalty is viewed as an important choice by organizations (Mao, 2010).

From the last few years, pharmaceuticals are on the track to get competitive advantage and good market share by working on strategies to make more and more loyal customers, increasing customer understanding and providing more appealing as well as attractive promotional activities. For pharmaceuticals, captivating physicians' loyalty means achieving huge market share and competitive advantage by health care professionals (doctors) in the tough marketplace. Therefore in order to secure more and

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prescriptions, it should be the most important aim to make few physicians who are not loyal to their products and thus do not advise to their patients (Hartley, 2013).

Executive of pharmaceutical companies have started bearing cost of marketing strategies to scrutinize brand loyalty as well as to investigate why customers become disloyal because brand loyalty is thought to be the most forceful and essential channel. They are also on the track to act specifically and take appropriate remedies because they realize that are part of such challenging environment where to stay competitive, they will have to plan which includes products/services and resources to create commitment and customer loyalty. Dealing with doctors' loyalty does not intend to secure short-term success but to create strategies that guide to enduring loyalty (Hartley, 2013).

It is vital to spotlight aspects that persuade customer loyalty in developing countries like Pakistan since fresh contestants are invading aggressively (Hafeez & Hansu, 2010).

Hence, for organizations it is viewed as an essential issue to find out the variables that influence customer loyalty.

Significance of the Study

The study will help to understand the role of product quality, brand image and regular visits of the medical representatives in determining physicians' loyalty to pharmaceutical brands and consequently will lead to development of strategies that would be helpful for the pharmaceutical companies to achieve physician s' loyalty and ultimately to attain competitive advantage in the market.

Objectives of the Study

The objectives of the study:

1) To identify variables that may affect the brand loyalty of physicians.
2) To establish the relationship between physicians' loyalty to pharmaceutical brands.
3) To extend recommendations for strengthening the physicians' loyalty to pharmaceutical brands.

LITERATURE REVIEW

Past work done by researchers provides guideline and forms an understanding into the existing knowledge. An overview of existing literature was done by the researcher with a specific end goal to build up a profound understanding and to assess the practical features emerging beyond researches. An overview of work done by researchers on pharmaceuticals, doctors, role of medical sales representatives and brand loyalty was done. Below segment demonstrates a significant analysis of past work done by the researchers related to the current research study.

Brand Loyalty

Zikmund, McLeod, and Gilbert (2012) defined customer loyalty as the customer commitment or attachment to a product, producer, distributor or other essence focused about positive and constructive behaviors and attitudinal responses, that is, procure a brand repeatedly.

Ahmed, Ahmad, and Haq (2014) in their research paper stated that now-a-days customers are much educated about the brands and prefer to purchase that brands which they feel that the brands have right qualities to fulfill their needs, attributes and affording cost. In addition they will not tend to buy the same brands from other options available and despite the availability of cheaper products, customers will not disloyal to their brands of choice.

For organizations operating in today's challenging environment, brand loyalty is thought to be of indispensable significance. According to Upamannyu, Gulati, and Mathur (2014), customers are not impressed by tricks and actions of competitors as their brand loyalty boosts. Loyal customers always prepared to pay a higher price. Loyal customers becomes the reference of the brand too because they advise their brands of choice to loved ones whenever they get the opportunity and in this way they show their commitment to the brand or brands.

Product Quality:

Today's customers are significantly more well-read and learned because of the influence of the search engines and thus, they will have a tendency to buy those products which provide them value for money. Also customers will not waste time and have a tendency to know precisely what they need to buy to fulfill their needs and wants (Alex & Thomas, 2015). Jan, Hussain, and Khan (2013) stated that long haul achievement thoroughly relies upon customer loyalty and product quality play vital role in connection with customer loyalty.

Waheed (2011) highlighted that physicians manufacture viewpoint regarding the quality of the drug based on the results they obtain through recommended treatments. If the product is found to be functional then physicians prescribe the recommended product again and again in treating diseases in upcoming patients.

Brand Image:

Customer's brand loyalty and trust considerably exaggerated by image of a brand and therefore, an organization must spotlight its promotional plans to create image of a brand in customers' perception as it is vital in today's world (Alhaddad, 2015).

As suggested by Anwar, Gulzar, Sohail, and Akram (2011), marketers must spotlight brand image to enhance brand loyalty because brand loyalty is significantly influenced by good brand image. They found that brand image has a noteworthy impact on brand loyalty.

A well-established and renowned image of a brand is one of the advantageous resources for any organization because brand image contributes in attaining superior customer loyalty which ultimately results in greater profit and revenue as well as better mutual aid and assistance (Olson, 2009).

Keller (1993) in his research paper suggested that enhancement in brand loyalty, equity, purchase pattern of customer and as a whole performance of a product is the resultant of a positive image. Aaker (1991) in his research paper suggested that it is imperative to value the advancement of image creation and its outcomes such as loyalty and satisfaction because building and sustaining brand image is the key element of an

organization's promotional and product strategy. He further stated that brand image can create difference because image of brand facilitates customers to differentiate the product, gives rationale to buy, crafts productive/positive mind-set and gives a reason for brand extension. It also facilitates customers to collect information about products.

Regular Visits of Medical Representatives

Personal selling is the primary tool pharmaceutical firms depend upon to promote their products because the target customers are special who are not consumers rather simply influencers, the physicians, and medical representatives are considered to be the face of promoting firms that make a difference by interacting physicians. Passing on the information effectively is the core responsibility of medical representatives to healthcare professionals and thus medical representatives are trained and skilled by pharmaceutical firms because they have to interact with the most educated and knowledgeable audience i-e physicians (Inamdar & Kolhatkar, 2012).

According to doctors' opinion, the most imperative source of information in order to decide which company's product to prescribe to patients are medical sales representatives (Alkhateeb et al, 2009).

Day (2000) explained that medical sales representatives are polite and decent persons with excellent product knowledge and communication proficiencies and capable of providing correct and unbiased information about their brands. Today representatives of pharmaceutical companies are given proper trainings to respond queries by doctors about product features and functions. They visit doctors mainly to get more and more prescriptions of their products. No doubt medical sales representatives attain good share of prescriptions by doctors but it is equally an opportunity for the doctor to obtain necessary information about the medicine (product) the doctor prescribes to the patients.

Theoretical Framework of the Study

On the basis of the above analyses of literature review, it was observed that product quality, brand image, and regular visits of medical representatives have been instrumental in developing the brand loyalty of physicians. Based on the analyses, this study had been designed to determine the relationship among these variables. Two types of variables were discussed in the study, i.e. independent and dependent. There were three independent variables namely product quality, brand image, and regular visits of medical representatives and one dependent variable that is physicians' loyalty to pharmaceutical brands, as shown in the figure below:

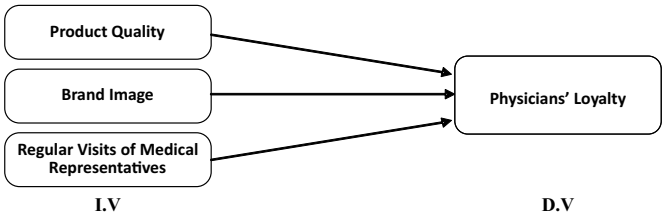

Figure 1: Theoretical Framework of the Study

HYPOTHESES

On the basis of review of theoretical framework, the following hypotheses are described:

H1: Product quality has significant positive effect on physicians' loyalty to pharmaceutical brands.

H2: Brand image has significant positive effect on physicians' loyalty to pharmaceutical brands.

H3: Regular visits of medical representatives have significant positive effect on physicians' loyalty to pharmaceutical brands.

RESEARCH METHODOLOGY

The study was conceived to determine the relationship between physicians' loyalty to pharmaceutical brands. For this purpose, a comprehensive methodology was adopted to collect and analyze the data in order to achieve the results. Therefore, the research methodology for the study is narrated as below:

Universe of the Study:

Total population frame was 550 doctors. List of the doctors belonging to different specialties were collected from the administration of concerned institutions and final list contained 550 specialty doctors thus the population size was 550. Research work was conducted in the region of Peshawar. Doctors of major institutions like Lady Reading Hospital (LRH), Khyber Teaching Hospital (KTH), Hayatabad Medical Complex (HMC), Institute of Kidney Diseases (IKD), Rehman Medical Institute (RMI), North West General Hospital (N.W.G.H), Institute of Radiology and Nuclear Medicine (IRNUM) and few major general practitioners were included in population of this current research study. Reason for including few major general practitioners (GPs) in the current study was that there are some general practitioners in Peshawar who are key opinion leaders (KOLs) and majority of patients prefer to get treatment by them and thus a huge number of patients pool visit them so the researcher felt that taking opinion from those major general practitioners will be highly valuable for the study.

Sampling and Sample Size:

In order to select sample from the population, simple random sampling method was administered to choose the respondents for the sample from the population frame. The respondents were selected through draw out of the list of the doctors. Sample size of 120 doctors was selected out of population frame 550 doctors. Data was collected through a five-point Likert scale questionnaire.

Sources of the Instrument

Below in Table 1, the sources of instruments are given.

Table 1: Scales and their Resources

Construct	Question No.	Source
Brand Loyalty	All 4 questions	Burton et al. (1998)
Product Quality	All 4 questions	Panchal et al. (2012)
Brand Image	Questions 1-3	Kim & Kim (2005)
	Question No. 4	Selnes (1993)
Regular Visits of Medical	Question No. 1	Dixit et al. (2014)
Representatives	Questions 2-4	Darkar (2007)

Data Analysis:

Data was analyzed using SPSS (Statistical Analysis for the Social Sciences) version 20. Descriptive statistics, reliability analysis, factor analysis, Pearson's correlations and multiple-regression was used to determine the relationship between physicians' loyalty and pharmaceutical brands.

Pilot Study:

In order to determine as to how much extent the variables of the study are relevant and valid to get the desired objectives, a pilot survey was also conducted among 10 medical doctors randomly selected. The questionnaire was administered on all research participants (10 doctors). For reliability test of the study, Cronbach's Alpha method was used. The results have validated the questions. The results are given in the Table 2 below.

Table 2: Reliability test of measures using Cronbach's Alpha Co-efficient

Measures	Cronbach's Alpha co-efficient
All Questions	0.731
Physician Loyalty	0.870
Product Quality	0.710
Brand Image	0.766
Regular Visits of Medical Representatives	0.701

RESULTS AND DISCUSSION

120 questionnaires were distributed among physicians of different specialties practicing in major institutions of Peshawar, which have been already described above. All the respondents filled the questionnaires and returned back to the researcher so response rate was one hundred and twenty.

Demographic Data

Descriptive statistics were used and given in Table 3 below to present demographic profile such as gender, age, specialty, employment sector, and experience of the

respondents.

Table 3: Demographic Profile of the Respondents

Characteristics		Frequency	%
Gender	Male	80	66.7%
	Female	40	33.3%
		120	**100%**
Age	21-30	42	35%
	31-40	51	42.5%
	41-50	21	17.5%
	51-60	6	5%
		120	**100%**
Specialty	Physician	29	24.2%
	Surgeon	20	16.7%
	Paediatrician	13	10.8%
	Gynaecologist	9	7.5%
	Oncologist	11	9.2%
	Urologist	9	7.5%
	Cardiologist	5	4.2%
	Nephrologist	9	7.5%
	Pulmonologist	11	9.2%
	General Practitioner	4	3.3%
		120	**100%**
Employment Sector	Public Institute	90	75%
	Private Institute	30	25%
		120	**100%**
Practicing Years	1-5	36	30%
	6-10	46	38.3%
	11-15	20	16.7%
	16-20	6	5%
	21-25	6	5%
	26-30	3	2.5%
	31-35	2	1.7%
	36-40	1	0.8%
		120	**100%**

RELIABILITY ANALYSIS

Cronbach's alpha is a well-known approach to measure reliability of the instruments. In the current study, 16 items were used in the measurement of three independent variables and one dependent variable and found that items in the study were more reliable and standard because the value of Cronbach's alpha was well above the standard and acceptable value of 0.70. Values of Cronbach's alpha are given in Table 4 below:

Table 4: Reliability of the Constructs

Variables	Number of Items	Cronbach's Alpha
Physicians' Loyalty	4	0.865

Product Quality	4	0.840
Brand Image	4	0.957
Regular Visits of Medical Representatives	4	0.928
All Variables	16	0.920

FACTOR ANALYSIS

Factor analysis was conducted to evaluate whether selected sample for the study is sufficient or not as well as to get confirmation that related loaded items lying on the identical factor. Items having correlation value of 0.4 and above is thought to be considerable loading on particular factors (Lattin, Carroll, & Green, 2003). Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity was used to confirm factorability and appropriateness of the data set. Table 5 demonstrates the result of the factor analysis.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy		0.897
Bartlett's Test of Sphericity	Approx. Chi-Square	1718.772
	Df	120
	Sig.	0.000

The value of Kaiser-Mayer-Olkin (KMO) was 0.897 which indicates that the sample size is big enough to carry out factor analysis because according to Kaiser (1974), if the value of Kaiser-Mayer-Olkin (KMO) is greater than 0.5 (0.5 and 1) then it is considered that data is normally distributed and therefore best suits to exploratory factor analysis and if the value is below 0.5 then in that case factor analysis may not be suitable.

Bartlett's test of Sphericity was tested too that resulted positive Chi-Square ($\chi 2$) with extremely significant level of 0% ($p = 0.000$; d.f. = 120).

In Table 6 with reference to the principle components analysis, the outcomes showed that the factor loadings for all items within a construct were more than 0.5 and therefore none of the items in the questionnaire is inadequate because the value mentioned against each item successfully satisfied set criteria, that is, greater than 0.5. So all items were assigned according to different constructs and were not overlapping and therefore supported respective constructs. Also there is no redundant/unnecessary item in the construct.

Table 6: Principal Component Analysis

Name of Factor	**Variable**	**Component**			
		1	**2**	**3**	**4**
Physicians' Loyalty	PL Q-1				0.535
	PL Q-2				0.699

	PL Q-3				0.781
	PL Q-4				0.627
Product Quality	PQ Q-1			0.872	
	PQ Q-2			0.906	
	PQ Q-3			0.850	
	PQ Q-4			0.567	
Brand Image	BI Q-1		0.872		
	BI Q-2		0.871		
	BI Q-3		0.924		
	BI Q-4		0.889		
Regular Visits of Medical Representatives	RVMR Q-1	0.788			
	RVMR Q-2	0.890			
	RVMR Q-3	0.885			
	RVMR Q-4	0.827			

Table 6 reflects that for each variable i-e. product quality, brand image, regular visits of medical representatives, and physicians' loyalty, all questions are above 0.5 which means that these questions are relevant and appropriate. None of the item included in the questionnaire can be acknowledged as inappropriate by factor analysis.

Pearson's Correlation Analysis:

Data was analyzed using SPSS 20th version. Pearson's correlation analysis was employed in order to uncover any association which exists between the independent and dependent variables selected for the current research study. It was assumed that there was no multicolinearity problem involved in the data. Correlation analysis findings are given in the Table 7 below:

Table 7: Correlation Analysis

	Physicians' Loyalty	**Product Quality**	**Brand Image**	**Regular Visits of Medical Representatives**
Physicians' Loyalty	**1**			
Product Quality	.604**	**1**		
Brand Image	.572**	.426**	**1**	
Regular Visits of Medical Representatives	.692**	.431**	.412**	**1**

** Correlation is significant at 0.01 level (2-tailed)

Table 7 described that there are statistically significant positive association between all the variables. As it can be seen that physicians' loyalty (dependent variable) has a significant positive correlation with all independent variables selected for current

research study. Further, there is a strongest significant positive relationship between the dependent variable physicians' loyalty to pharmaceutical brands and the independent variable regular visits of medical representatives (r = 0.692). Also there is a stronger relationship between the dependent variable physicians' loyalty to pharmaceutical brands and the independent variable product quality (r = 0.604) and there is a strong relationship between the dependent variable physicians' loyalty to pharmaceutical brands and the independent variable brand image (r = 0.572).

Regression Analysis:

In order to analyze the relationship between variables and to verify hypotheses of the research, multiple-regression analysis was carried out. Multiple-regression analysis is a strong procedure to predict the unknown value of a variable from the known value of two or more variables. Following results were obtained by using multiple regression analysis.

Table 8: Regression Analysis – Model Summary

R	R-Square	Adjusted R-Square	Standard Error of the Estimate
0.802	0.643	0.634	0.39219

a) Predictors: PQ, BI, RVMR
b) Dependent Variable: Physicians' Loyalty

In regression analysis, model summary is very important because it provides the measures of how overall model best fits the population, and how well the predictors i-e independent variables are able to predict the dependent variable. In Table 8, first measure is called R. Basically R is used to explain the relationship between variables. In order to get further precise results, R Square (R2) is taken. R Square (R2) explains total variation in dependent variable and the independent variables. The value of R Square (R2) differs from 0 to1. Model does not fit the data well if value of R Square (R2) is smaller. In the model summary of regression analysis, Adjusted R Square enables R Square (R2) to give closer expression of goodness of model fit in the universe. The standard error of the estimate is a measure of how much R is expected to differ from one sample to another. In the current study, as represented by Table 8, the value of R Square is 0.643 which demonstrated a good fit between the model and the universe. More precisely it concluded that independent variables selected for the current study, that is, product quality, brand image and regular visits of medical representatives had impacted significantly the dependent variable of the current study, that is, physicians' loyalty to pharmaceutical brands by 64.3% which strongly reflected that model is best fit the population.

Table 9: Regression Analysis – Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	32.180	3	10.727	69.739	.000
Residual	17.842	116	0.154		
Total	50.023	119			

a) Predictors: PQ, BI, RVMR
b) Dependent Variable: Physicians' Loyalty

Above Table 9 shows results of Analysis of Variance (ANOVA). Analysis of Variance (ANOVA) table shows the value of F which is 69.739 with p value of 0.000. Since the value of F must be more than 5 and not be less than 2, the researcher concluded that having value of F greater than 5, that is, 69.739, with p value of 0.000, the model is statistically significant.

Table 10: Regression Analysis – Regression Coefficients

	Unstandardized Coefficients		Std. Coefficients		
Model	**B**	**Std. Error**	**B**	**t**	**Sig.**
(Constant)	1.636	0.315		5.200	.000
Product Quality	0.356	0.077	0.297	4.606	.000
Brand Image	0.120	0.030	0.256	4.016	.000
R.V.M.R	0.210	0.029	0.459	7.170	.000

a) Predictors: PQ, BI, RVMR

b) Dependent Variable: Physicians' Loyalty

The above Table 10 of regression coefficients reveals the β as well as t values. The t value is backed by p value. β value represents variation in the dependent variable caused by the variation in the independent variable. β value shows the rate of change in the dependent variable due to one unit change in the independent variable. In order to accept or reject hypotheses, t value with probability p value is calculated. At 5% significance level, the value of t should be greater than 2 because the tabulated t value at 5% significance level is 1.96. Hence the value greater than tabulated t value, that is, 1.96 with p value less than 0.5 will result in acceptance of hypotheses. Based on the findings shown in Table 10, it can be seen that t values for all independent variables are greater than 2. So it is concluded that all selected independent variables for the study, that is, product quality, brand image, and regular visits of medical representatives are linked to the dependent variable physicians' loyalty to pharmaceutical brands and the relationship among these factors is significant as compared to α (alpha) value 0.05.

1. Data Analysis and Interpretation of H1

The first hypothesis of the current research study verify the impact of first independent variable product quality on the dependent variable physicians' loyalty to pharmaceutical brands, which is stated as:

H1: Product quality has significant positive effect on physicians' loyalty to pharmaceutical brands.

In above Table 10, β value of Product Quality is 0.297 which means 29.7% change in the dependent variable physician's loyalty is due to one unit change in the independent variable product quality. Since tabulated value for t-statistic at 0.05 level of significance is ± 1.96, t value in the above Table 10 is 5.200 and 4.606. As t value is greater than 2 with probability value of 0.000, it is concluded that product quality has significant positive effect on physicians' loyalty to pharmaceutical brands. Therefore, H1 of the current research study is accepted. These results are also consistent with the findings of

previous studies conducted by Jan et al. (2013) and Khan (2012).

1. Data Analysis and Interpretation of H2

The second hypothesis of the current research study verify the impact of second independent variable brand image on the dependent variable physicians' loyalty to pharmaceutical brands, which is stated as:

H2: Brand image has significant positive effect on physicians' loyalty to pharmaceutical brands.

In above Table 10, β value of Brand Image is 0.256 which means 25.6% change in the dependent variable physician's loyalty is due to one unit change in the independent variable brand image. Since tabulated value for t-statistic at 0.05 level of significance is ± 1.96, t value in the above Table 10 is 5.200 and 4.016. As t value is greater than 2 with probability value of 0.000, it is concluded that brand image has significant positive effect on physicians' loyalty to pharmaceutical brands. Therefore, H2 of the current research study is also accepted. These results are also consistent with the findings of previous studies conducted by Jan et al. (2013), Khan (2012); Ogba & Tan (2009).

1. Data Analysis and Interpretation of H3

The third hypothesis of the current research study verify the impact of third independent variable regular visits of medical representatives (RVMR) on the dependent variable physicians' loyalty to pharmaceutical brands, which is stated as:

H3: Regular visits of medical representatives have significant positive effect on physicians' loyalty to pharmaceutical brands.

In above Table 10, β value of Regular Visits of Medical Representatives is 0.459 which means 45.9% change in the dependent variable physician's loyalty is due to one unit change in the independent variable regular visits of medical representatives. Since tabulated value for t-statistic at 0.05 level of significance is ± 1.96, t value in the above Table 10 is 5.200 and 7.170. As t value is greater than 2 with probability value of 0.000, it is concluded that regular visits of medical representatives has significant positive effect on physicians' loyalty to pharmaceutical brands. Therefore, H3 of the current research study is also accepted.

CONCLUSION AND RECOMMENDATIONS

The aim of the current study was to investigate the major factors that determine brand loyalty. For this purpose the study conducted and results so obtained were presented and analyzed. Hypothesis wise results are discussed and based on the results obtained, few recommendations has been made for the practical implications of the current study findings.

CONCLUSION

This study underlined a detailed analysis and findings of selected variables for the current research study by using Pearson's correlations and regression analysis. Multiple regression analysis was applied to find out how much independent variables are affecting the dependent variables. The outcomes supported the hypotheses of the current research study and showed the extent that how much independent variables

influencing the dependent variable. The outcomes of all hypotheses were accepted by applying statistical tests. No doubt the importance of quality of product can never be compromised nor neglected, but from the findings of the current study it was found that regular visits of medical representatives has positive and most significant impact on physicians' loyalty to pharmaceutical brands. Medical representatives are backbone of pharmaceutical industry. Medical sales representatives are the most effective and efficient means to convince physicians to prescribe medicines. It can also be concluded from the current study that regular visits by representatives helps in building relationship with key opinion leaders (doctors) which ultimately results in increased prescription to the patients by doctors. Increased prescription means increased profit and hence increased market share. Consistent interactions with key opinion leaders (doctors) by sales representatives are of pivotal importance as these interactions help doctors remember medicine names and by doing so they get more and more prescriptions of their medicines.

Product quality also plays a pivotal role in making customer loyal. It can also be concluded from the current study that there is an important link between physicians' loyalty to pharmaceutical brands with good product quality. Jan et al. (2013) stated that long term achievement thoroughly relies upon customer loyalty and product quality play vital role in connection with customer loyalty. Waheed (2011) stated that specialists develop knowledge about the nature of the drug on the premise of the result they get by their endorsed medicines and if the drug is found to be effective and valuable, the specialist prescribe the same brand to the patients for the comparable sort of disease or infection. Hence the researcher, in view of results from present study, concluded that product quality also has a positive and significant impact on physicians' loyalty to pharmaceutical brands.

Brand image also has a positive and significant impact on physicians' loyalty to pharmaceutical brands as the researcher found that respondents do value good image of a brand in recalling brand name and helping in patronizing it to patients. According to the Data (2003), when the brand/product makes a powerful place in the psyche of the customers, and enhances their confidence, they start emotion with the brand and would not prefer to replace it.

Limitations of the Study/Recommendations for the Future Research

Despite the fact that this study took a positive methodology in looking into past work done by researchers as well as utilizing latest statistical tools, there are few constraints which are important to be given consideration:

1) First of all the sample size of the current study as compared to all practicing doctors of Peshawar may impact on possible generalization of the research findings and thus call for further research using a larger sample size.
2) Second, due to less resources (time, money) this study was only limited to few major institutes of Peshawar region. So by considering the resources, one can extend his/her research to two or more cities of Pakistan.
3) Third, this study included only three independent variables i-e product quality, brand image and regular visits of medical representatives. One can include few more variables to read the impact of those variables on customer loyalty.

RECOMMENDATIONS FOR MANAGERS

1) Persistent interactions of med reps with doctors is one of the major factors that influence physicians' brand loyalty and helps companies to gain huge revenue and good reputation. Basically physicians are customers for pharmaceuticals and are very much knowledgeable individuals and in order to convince them on the products, more knowledgeable, skillful and dedicated individuals (medical representatives) are required. Medical representatives should follow their monthly/weekly/daily working plans to ensure consistent interactions with their respected doctors so that there should be a good liaison with them in order to get good prescriptions as the H3 of the current study has revealed that physicians do regard regular visits of medical representatives. Since the emphasis in sales has become more customer-oriented, therefore pharmaceutical companies should invest in developing the most effective field force they can to achieve their strategic goals.

2) Quality of the medicines is considered to be the most critical variable in expanding customer loyalty, so companies must focus on it. In order to maintain and prolong the loyalty of doctors, marketing managers/business unit heads of pharmaceutical companies must give attention to the quality of the products (medicines) because quality of the products is the most critical variable in expanding customer loyalty and they must not compromise on quality of the products because the end-user is a patient which is suffering from a disease and needs intense care and cure and sub-standard or low-quality medicines can hamper/slow the recovery process or perhaps tend towards treatment failure and in diseases like cancer or other dangerous diseases it may lead to increased risk of patient's mortality.

3) Managers must focus brand image to enhance brand loyalty because brand loyalty is significantly influenced by good brand image. Pharmaceutical companies ought to give value to its every single customer (doctor) whether the customer is the new or old one. In order to construct the organization's as well as products' good image in the mind of their customers (doctors); marketing/business unit heads managers should create a respectful and humble liaison with their customers (doctors).

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