Research Paper Management

Competency Profiling of Medical Representatives – A Pilot Study

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ABSTRACT

The research paper identifies attributes of behavioural and functional competencies of successful medical representatives. The competencies were identified by interviewing area managers of top 20 pharmaceutical companies. Chi Square and Regression Analysis tests were applied to know whether the attributes, that have been identified for the study has any relationship or association with the successful Performance or non performance of the medical representatives.

KEYWORDS Competencies; Performance; Medical Representatives; Area Managers

Introduction:-

Pharmaceutical marketing is a specialized field where medical representatives form the backbone of entire marketing effort. For Pharma companies, sales force is a very effective communication channel which allows face-to-face, interactive communication with physicians for a considerable amount of information. Sales team tries to influence prescription pattern of doctors in favor of their brands. It has been observed that sometimes there are more than twenty medical representatives in a day are meeting with their customer and requesting for same type of products. Today companies are faced with different challenges like increased competition, decreasing face –time with doctors, high territory development costs, high training cost of sales representatives, very high attrition rate of the sales personnel and day by day the decreasing quality of medical representatives. The changing scenario calls for competency development in organizations' to manage superior performance. The purpose of this study is to identify behavioral and functional competencies required by medical representatives in a competitive scenario to achieve superior sales performance and to develop a competency framework which will help pharmaceutical companies to devise a competence based system for performance evaluation.

Literature Review:-

A Vinayagamoorthy, S. Suja, Shankar Lakshmi Ratan,(2008), in their research paper "Competency Mapping - A Corporate Catchword ",conducted a pilot study at organization manufacturing power steering gears. The authors first did competency profiling of middle managers in manufacturing department. Then comparison was done regarding required scores and existing scores among the executives at different job positions to analyze training needs and found out that training was required for product quality , analyzing and mapping techniques. Similarly competency gaps were identified for senior executives and assistant managers.

Nair Vigi, (2010) , in the research paper titled Behavioural Competency and Organizational Performance discussed impact of behavioral competency on organizational performance. The researcher discussed 3 case studies. First case was related to classifying roles for selection interviewing training and position competency analysis is in which essential competencies necessary for position at all levels were classified. In second case an insurance company faced significant turnover and customer service problems. Due to initiatives like action interviewing, action plus and action coaching there was 20% reduction in turnover. In third case a real estate management company was able to reduce turnover due to competency analysis. All these cases show that behavioral competency and its management play a vital role for the success of organization.

Mily Velayudhan T.K. (2011) : in the research paper" Competency Mapping of the Employees –A Study", selected two software companies and assessed the competency gap that existed between the employee's current performance level and the expected level of the employees. A total of 20 dimensions were used to assess the performance level and identify gaps. The researcher found that performance levels of CTS employees are higher when compared to employees of HCL. The gaps were found to be high among the employees of HCL in most of the dimensions.

Patil Sunil Subhash ,(2012) ,in his research paper titled "Interpersonal Competencies of Employees in Hospitality Industries – A Comparative Study", compared interpersonal competencies of public sector hotel employees to that of private sector employees. It was found that the interpersonal HRD competencies among public sector employees are less than that of private sector hotel employees. Also there is a significant difference in interpersonal competencies and public sector employees lack these competencies.

Ali Shaukat ,(2012), in his research paper titled " Competency Mapping – A Case Study at Ambassadors Sky Chef, Mumbai" conducted a research at the Ambassador's Sky Chef company, a pioneer in the field of flight catering and operates the largest catering units at Mumbai and Delhi. The researcher adopted competency mapping process to measure knowledge skill and attitude, to identify competency gap and to analyze training needs of employees. He found out that 70% of employees are competent and 30% are not enough competent and required to be trained and 360 degree method appeared to be most appropriate and accepted method of evaluation.

Kaur Jaideep and Kumar Vikas ,(2012), in their research paper titled Competency Mapping : A Gap Analysis , identified

the technical, managerial and human competencies required for the job and measured gap in required and existing level of competencies. The study was carried out with three managers namely Deputy, Senior, & Junior at three different level of management. The researcher found out that higher level lacked in functional competencies, middle level was short of managerial skills and first level manger was in need of human skills. This study helped to identify skills in which mangers are good at and skills which they lacked.

Suguna.P & Selvi T,(2013),in their research paper titled" Competency Mapping-A Drive For Garment Firms in Tirupur District conducted a study to identify benefits of competency mapping at Export Garment organizations of Tirupur District. The researchers used critical incident analysis and repertory grid to assess competency levels of employees on various competencies.They studied the effect of years of experience and capital employed on the opinion on aim and benefits of competency mapping.

The research gap identified was that there was no study conducted on competencies of medical representatives of pharmaceutical industry.

SCOPE OF THE STUDY
This study will help to identify behavioral and functional competencies required by medical representatives for successful performance.

Research Design For The Study
Type of Research: Exploratory and Descriptive

Population: All Area Managers/First Line of top 20 pharmaceutical companies in Pune

Sample Size: 20

Method of sampling: Snowball Sampling

Data Type: Primary Data

Data Collection Tool: - Interview Schedule and Questionnaire.

Analytical Tools Used: SPSS (Chi Square & Regression Analysis)

The behavioral and functional competencies were identified through interviews with area managers.

The competencies which appeared frequently were selected for the study. The behavioral competencies were

a. Professionalism
b. Interpersonal skills
c. Impact & Influence
d. Resilience
e. Integrity
f. Result Orientation.
g. Innovation
h. Customer Focus
i. Initiative

And the functional competencies identified in the study are:-
a) Sales Expertise
b) Territory Management
c) Sales Implementation &Tracking
d) Knowledge
e) Records Management

A questionnaire was prepared using likert scale and responses were taken from area managers for both performing and non performing representatives regarding degree of presence of these competencies from definitely present to definitely not present.

- Statistical Analysis performed is Chi square Analysis for the qualitative attributes considered for the study.
- Here the null hypothesis (H_0) states that behavioral competencies are having no association with the performance/ non- performance of the medical representatives.
- The alternative hypothesis (H_1) states that behavioral competencies are having association with the performance/ non- performance of the medical representatives.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
P_MR * NP_MR	9	100.0%	0	.0%	9	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.000	20	.055
Likelihood Ratio	23.594	20	.261
Linear-by-Li near Association	3.696	1	.055
N of Valid Cases	9		

30 cells (100.0%) have expected count less than 5. The minimum expected count is 11.

From the table given above the Pearson Chi Square Value at 20 degrees of freedom is 31.000. This clearly indicates that the Chi square value is significant and hence we reject our null hypothesis. We can conclude that the behavioral competencies are having positive association with the performance/ non performance of the medical representatives. Each of the attributes identified under the behavioral competencies are related with their performance.

Functional Competencies
Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
P_MR * NP_MR	5	55.6%	4	44.4%	9	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.250	6	.396
Likelihood Ratio	7.777	6	.255
Linear-by-Linear Association	2.813	1	.094
N of Valid Cases	5		

12 cells (100.0%) have expected count less than 5. The minimum expected count is .2

- Here the null hypothesis (H_0) states that functional competencies are having no association with the performance/ non- performance of the medical representatives.
- The alternative hypothesis (H_1) states that functional l competencies are having association with the performance/ non- performance of the medical representatives.

From the table above the Pearson Chi Square Value at 6 degrees of freedom is 6.250. This clearly indicates that the Chi square value is significant and hence here also we reject our null hypothesis. We can conclude that the both behavioral and functional competencies are having positive association with the performance/ non performance of the medical representatives. Each of the attributes identified under these competencies are related with the performance of the medical representatives.

Regression Analysis of Competencies with Performance of Medical Representatives
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.873	.762	0.749	874.779

Predictors: (Constant), BC

The model summary contains the essential information revealing how well our regression model fit (or did not fit) the observed data. We see that R is equal to .873. Since this is a simple linear regression (i.e., we have only a single predictor), R is actually equal to the Pearson Product-Moment correlation coefficient between the dependent and independent variable. The bivariate correlation of .873 is identical to the R statistic computed in the regression procedure indicates higher correlation.

R Square in the model summary is computed as .762 The R^2 value indicates how much of the performance of the medical representatives, can be explained with the help of the various level of competencies. In this case, 76.2% can be explained, which is very large and quite good. In other words we can also interpret that the competencies considered for our study are justified for assessing the performance of the medical representatives.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.418E7	1	4.418E7	57.357	.000
	Residual	1.378E7	18	76525.648		
	Total	5.796E7	19			

Predictors: (Constant), BC
Dependent Variable: P_MR

The regression sum of squares tells us how much variability (not variance yet) is accounted for by the regression model, which is the fitting of the least-squares line. The residual sum of squares tells us how much variability (again, not variance yet) is unaccounted for by the regression model. The total variability is the sum of both regression and residual variability (note that 5.796E7 = 4.418E7 + 1.377E7). The extent to which the regression sum of squares is large relative to the residual sum of squares is the extent to which more variability than not is accounted for by our model. This table also indicates that the regression model predicts the outcome variable significantly well.

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	8287.694	1852.727		4.490	.000
	BC/FC	.564	.074	0.872	7.598	.000

Dependent Variable: P_MR

The table above of Coefficients provides us with information on each predictor variable. This gives us the information we need to predict performance from various competencies. We can see that both the constant and competencies contribute significantly to the model (by looking at the Sig. column). By looking at the B column under the Unstandardized Coefficients column, we can present the regression equation as:

Performance = 8287 + 0.564(Competencies)

Regression Analysis of Competencies with Non- Performance of Medical Representatives
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699	.489	.479	7.14817

a Predictors: (Constant), BC, FC

The model summary contains the essential information revealing how well our regression model fit (or did not fit) the observed data. We see that R is equal to .699. R statistic computed in the regression procedure indicates a good correlation.

R Square in the model summary is computed as .489 The R^2 value indicates how much of the non-performance of the medical representatives, can be explained with the help of the various level of competencies. In this case, 48.9% can be explained, which is a fair prediction. In other words we can also interpret that the competencies considered for our study are fair enough for assessing the non-performance of the medical representatives.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.543E7	1	7.543E7	52.574	.000
	Residual	2.193E7	18	121833.3		
	Total	9.736E7	19			

Dependent Variable: NP_MR

The regression sum of squares tells us how much variability (not variance yet) is accounted for by the regression model, which is the fitting of the least-squares line. The residual sum of squares tells us how much variability (again, not variance yet) is unaccounted for by the regression model. The total variability is the sum of both regression and residual variability. The extent to which the regression sum of squares is large relative to the residual sum of squares is the extent to which more variability than not is accounted for by our model. This table also indicates that the regression model predicts the outcome variable significantly well.

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	7833.3	1286.277		6.091	.000
	BC/FC	.367	.043	.519	2.605	.000

Dependent Variable: NP_MR

The table above of Coefficients provides us with information on each predictor variable. This gives us the information we need to predict the non-performance from various competencies accorded in our study. We can see that both the constant and competencies contribute significantly to the model (by looking at the Sig. column). By looking at the B column under the Unstandardized Coefficients column, we can present the regression equation as:

Non-Performance = 7833 + 0.367(Competencies)

From the regression analysis it can be clearly indicated that regarding the competencies considered for the study (both behavioral & functional) are highly justified to assess the performance of the medical representatives. But in case of non – performance of the representatives the competencies are giving fair picture but there may be some other factors along with these considered attributes which also will be responsible for the non performance.

Conclusion:-

The Pearson Chi Square Value at 20 degrees of freedom is 31.000 6 degrees of freedom is 6.250. This value rejects null hypothesis and accepts the alternative hypothesis that behavioral and functional competencies are having positive association with the performance/ non performance of the medical representatives From Chi Square analysis we can say that the

attributes identified under behavioural and functional competencies are capable to judge the performance as well as non performance of Medical Representatives which means that the attributes identified are good enough to carry the further research. Further the regression analysis validates that attributes for the performance of medical representatives are highly justified for the study but in case of non performance there exists chance of identifying some more attributes which may lead to non performance of medical representatives.

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