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RESEARCH ARTICLE

RELATIONSHIP BETWEEN COMPATIBILITY AND PRODUCT ADOPTION BY THE SALESPERSON IN MANUFACTURING FIRMS IN KENYA

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ABSTRACT

This study examined the relationship between compatibility and new product adoption by the sales force. The specific objectives of the study were to examine the relationship between compatibility and product adoption by the sales person. The design of the research was cross sectional survey using the questionnaire to collect data. The target population was 250 sales managers and 550 salespersons, the sample comprised of 122 salespeople judgmentally sampled and 64 sales managers who were randomly sampled from manufacturing firms in Kenya. Data was analyzed using descriptive and inferential statistical tools. The findings show that there is a high correlation between relative advantage and salesperson adoption. The results showed that there was significant relationship between compatibility and product adoption. Salespersons acceptance or rejection of new products will rely greatly on the extent to which it accommodates or rejects all or some of the past values. An innovation is compatible with the way salesperson work, and is compatible with the current situation then salesperson adopts the new product. Compatibility has a positive and direct effect on the rate of adoption of an innovation**.** The product characteristics significantly influence the sales adoption of products and it is important to motivate salespeople particularly during new product introductions. Thus there is need to create awareness of the new products to be introduced in the market.

INTRODUCTION

Compatibility is the "degree to which an innovation is perceived as being consistent with existing values, past experiences, and needs of the potential adopter." (Rogers, 1983: p. 223). Tornatzky and Klein (1982) in their meta-analysis found it to be an important determinant of adoption. The more an innovation is perceived as consistent with present systems, procedures, and value systems of the potential adopter, the more likely that it will be adopted (Rogers, 1995). Schultz and Slevin (1975) emphasized the importance of technological innovations to be organizationally and technically oriented. Organizational orientation checks compatibility with existing attitudes, values, beliefs and value systems, while technical oriented validates the compatibility of technology with existing systems. Premkumar, *et al*. (1994) found small businesses adopt information technology when compatible with its values and belief system. Karahanna, Agarwal, and Angst (2006) defined compatibility in terms of four constructs: compatibility with preferred work, compatibility with existing work practices, compatibility with prior experience, and compatibility with values. They found compatibility on beliefs to be stronger than compatibility on usage. Study by Liao and Li (2007) found perception of compatibility is significantly related to intentions to use E-learning and intention is significantly related to their actual use of E-learning websites. Van Slyke *et al*. (2004) study on factors that impact consumers' decisions to engage in Web based shopping, reported that perceived compatibility had the strongest impact on intention to use. Studies by Lin and Lee (2006) showed that compatibility positively affected intention to encourage knowledge sharing.

Compatibility is related to the fit of technology with prior experiences in the technology acceptance model. Frambach, *et al*. (2003) reported compatibility level should be higher at the intention stage than awareness stage in the adoption process. The more an innovation is perceived to be compatible with organization needs, activities and values the more likely it will be adopted. Innovations that are compatible with a potential adopter organization have higher perceived benefits and in all stages of adoption (Anderson and Narus, 1999). Cooper and Zmud (1990) study on the adoption and infusion of MRP systems within industrial firms reported high task technology compatibility positively related to MRP adoption. O'Callaghan *et al*. (1992) found system incompatibility to be negatively related to the adoption of EDI. The results implied it was possible for a firm to adopt an Electronic data interchange system to satisfy pressure but fail to diffuse it further due to incompatibility problems with internal IS applications. According to diffusion theory compatibility has a positive and direct effect on the rate of adoption of an innovation. Rogers (1983: p, 223) claims that "an idea that is compatible is less uncertain to the potential adopter". The

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probability of adopting the product would be higher as dissonance which can occur in the mind of the user would be smaller and the probability to use the product becomes high. Successfully launching a new product to the company's sales force requires the same high levels of creativity, energy, and managerial insights as does the products launch into the market place. Ensuring sales force adoption of a new product requires careful consideration of the characteristics of the product, the competing environment, the firm, and the members of the sales force. The overall objective was to examine the relationship between compatibility and salesperson adoption.

Conceptual Framework

The dependent variable comprised of sales person adoption. The salespeople are often the most important communication vehicle for launching new products. The sales force skills and resources, quality of selling effort and training of the sales force significantly discriminate successful new product launches from unsuccessful ones. Salespeople may also resist adding a new product to existing lines fearing that customers may not be satisfied, affecting their relationship or fear changing their schedule of selling known products. The independent variables comprised of compatibility product characteristic measured by determining whether product is compatible with all aspects, product compatible with current situation and products fits well with the way it is sold.

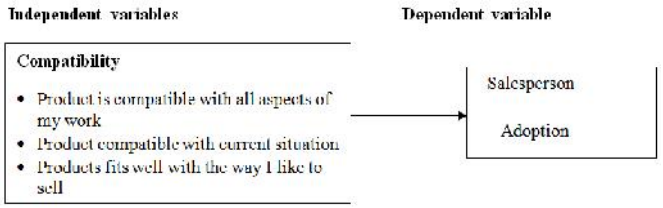

Figure. 2.1. Conceptual Framework

MATERIALS AND METHODS

The research design chosen is explanatory with some elements of descriptive design used. Survey methodology was used in this study to obtain perceptions of major theoretical concepts. Target population refers to the complete group of specific population elements relevant to the research project (Zikmund, 2003). The target population was all the manufacturing firms in Kenya, a list of 500 firms were randomly picked from the Business directory. The sales managers for these firms were contacted by telephone. The target population was 250 sales managers and 550 salespersons. This study employed both probability and non-probability sampling design. A simple random design was used to select sales managers. Non-probability sampling design was used to select salespersons, specifically, judgment sampling design was used. This is where specialists in the area choose what they believe to be the best sample for a particular study. The researcher used questionnaires to collect data from sales managers and sales persons. The questionnaire was made up of structured and unstructured questions and was administered to the respondents who were sampled. All the questions in the questionnaire were related to the objectives of the study. Sales managers were first to be contacted by telephone to solicit their cooperation. The researcher personally delivered the questionnaires to the informants. The respondents were informed of the confidentiality of their responses and the academic purpose of the project. During the study the Cronbach's alpha was used to test internal consistency. Cronbach's alpha is a single correlation coefficient that is an estimate of the average of all the correlation coefficients of the items within a test. If alpha was high (0.852), then this suggests that all of the items were reliable and the entire test is internally consistent. The data collected for the purpose of the study was adopted and coded for completeness and accuracy of information at the end of every field data collection day and before storage. Data capturing was done using Excel software. The data from the completed questionnaires was cleaned, coded and entered into the computer using the Statistical Package for Social Sciences (SPSS) version 20.0 to derive both the descriptive and inferential statistics relevant for this study.

RESULTS

Relationship between compatibility and product adoption by the salesperson. The Pearson correlation was performed to determine the relationship between compatibility and the sales adoption as summarized in Table 1. The compatibility were positively significantly correlated to sales adoption at 1% level of significance (r = .223) and 2 tailed.

Table 2. Correlations between compatibility and product adoption by the salesperson

Product Characteristics		Sales Adoption (N=122)
Compatibility	Pearson Correlation	.223**
	Sig. (2-tailed)	.014

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

Compatibility and Sales Adoption Coefficients

From the multiple correlations the Compatibility coefficients were .223 and the R-square was .05. Thus compatibility predictor variable has explained 5% of the variance in the dependent variable of Sales adoption as shown in Table 1. The compatibility construct (β= 0.223, $p < 0.05$) was found to be positively contribute to the diffusion of innovation model. This suggested that the compatibility of new product to sales people was important. Products that are compatible with the current situation and fits well to the way salespeople would want to sell are adopted faster. The coefficient shown in Table 2, presents the standardized Beta coefficients between the predictor variable, compatibility and the dependent variable sales adoption. The Beta coefficient is shown to be positive and statistically significant at the 5% level of significance. Thus the higher product compatibility, the higher the sales adoption, B=0.223, t=2.5, $p<0.05$. Thus, Ho is supported.

Table 2. Model Summary for Compatibility

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.223[a]	.050	.042	.71419	.050	6.252	1	120	.014

a. Predictors: (Constant), Z score: Compatibility
b. Dependent Variable: Adoption

Table 2. Compatibility Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.438	.065		68.634	.000
	Z score: Compatibility	.162	.065	.223	2.500	.014

a. Dependent Variable: Adoption

DISCUSSION

The results showed that there is significant relationship between compatibility and product adoption. The findings support previous studies that a modern system accepts and adopts an innovation faster and easier than traditional systems (Blackwell *et al*., 1995). The significant contribution of compatibility to the diffusion of innovation model has also been highlighted in other studies by Chen *et al*. (2002) and Tan and Teo (2000). These findings agree with Lau (2002) who found out compatibility significantly correlated with the attitude of using the system. The study by Chen, *et al*., 2002 showed compatibility between using a virtual store and consumer belief, values and needs positively affected ones attitude towards using the virtual stores. Salespersons acceptance or rejection of new products will rely greatly on the extent to which it accommodates or rejects all or some of the past values. It agree with studies by Lin and Lee (2006) that compatibility positively affected intention to encourage knowledge sharing. Innovations that are compatible with a potential adopter organization have higher perceived benefits and in all stages of adoption (Anderson and Narus, 1999). The probability of adopting the product would be higher as dissonance which can occur in the mind of the user would be smaller and the probability to use the product becomes high. New products that are compatible with user's previous values and its current practice are adopted.

Conclusion

The results showed that there was significant relationship between compatibility and product adoption. Salespersons acceptance or rejection of new products will rely greatly on the extent to which it accommodates or rejects all or some of the past values. An innovation is compatible with the way salesperson work, and is compatible with the current situation then salesperson adopts the new product. Compatibility has a positive and direct effect on the rate of adoption of an innovation.

Recommendation

From the study the following recommendations were made:

- The product characteristics significantly influence the sales adoption of products and it is important to motivate salespeople particularly during new product introductions.
- The salespersons should be motivated through offering of tangible rewards that will offer a sense of accomplishment, self actualization and self worth.
- Thus there is need to create awareness of the new products to be introduced in the market.

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