

# Impact of Sales Force Automation on Relationship Quality and Sales Force Performance

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## ABSTRACT

The present study aimed to determine the associations among sales force automation, customer satisfaction and sales force performance. Contributions of this study include the analysis of customer satisfaction as a mediator between sales force automation and sales force performance in the dairy industry of Pakistan. The study used 5-point likert scale and sample size was 240. Data collected from five major cities of Pakistan i.e. Islamabad, Rawalpindi, Lahore, Sahiwal, and Faisalabad. The data set of the study consists of two parts, one related with company's executives and other related to retailers. The study constructed a statistical model to measure the relationships between variables. Data analysis included reliability analysis, validity analysis and inferential statistics. The results of this study indicated that sales force automation positively affects customer satisfaction and sales force performance, and customer satisfaction partially mediates the relationship of sales force automation and sales force performance. Moreover, the positive effect of customer satisfaction on sales force performance was also measured. The findings suggested a number of implications in development of sales plans and use of technology in those plans. Limitations of study include low sample size and limited area for research which reduced generalizability of findings.

**KEYWORDS:** Sales force automation, Sales force performance, Customer satisfaction.

**Article Type:** Research Article

## 1. INTRODUCTION

Marketing mix is one of the most aspect of marketing, it is designed with the guidance of marketing strategy and it includes four factors; product, price, place and promotion. These are also called four P's and are considered very important tools for any firm to create a demanding response. Promotion is the important element of marketing mix; it includes sales activities which create the needs and demands of the any product among customers, and persuade the target customers to buy it. Promotion is further divided into different activities like advertising, sales promotion and public relations. Now sales activity is the part of promotion activities, and Customer Relationship Marketing (CRM) is the part of sales activities. CRM is a process of creating and marketing profitable customer relations by developing customer value and satisfaction. This study actually discusses the Sales Force Automation (SFA) which is one of the important components of CRM [1].

SFA system integrates software and hardware systems which supports the main activities carried out by common sales professionals. SFA offers a lot of adorable characteristics, including combination of the sales force with other sections of the company, sales automation, standardized sales activities, efficient and effective administration of the sales force. The possible payback of the system comprises higher production, less costs, high closing price, better flow of information within the association, removal of spare databases, improved collaboration among sales units, high elasticity with customer services, capability to share best practice, the ability of potential customers has not decided, and a more efficient supervision of the sales force reassign. SFA can also enhance the sales procedure by establishing up-selling, cross-selling and push-sales opportunities[2].

Earlier research was comprehensive and examined different features of SFA at managerial and individual level [3]. SFA's first articles were positive about the success, but current researches indicate that 55% - 75% of SFA

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schemes failed[4]. SFA is still accepted in many different regions and there is still unsatisfactory understanding of the system which influences the failure or success of SFA. The research is necessary to describe how SFA positively affects customer satisfaction and sales force performance and how CS plays mediating role between SFA and SFP. This rationale of the study is to test these relationships particularly in four major companies of dairy industry of Pakistan; Nestle, Engro Foods, Haleeb Foods and Nurple. These four companies are specifically selected on the basis of high market share and competition.

### 1.1 Research Objectives

The objectives of the study are based on existing literature by understanding how SFA has direct or indirect impact on customer satisfaction and sales force performance particularly in dairy industry of Pakistan and especially in the context of retailer side. Basically, study aims to describe that how salespeople use SFA to fulfill their daily tasks, and not only if they are using SFA or not, has a direct impact on customer satisfaction and their performance.

The objectives of study are to measure:

- The impact of SFA on SFP and CS.
- Mediating effect of CS between SFA and SFP.

### 1.2 Research Questions

- How does sales force automation affect the customer satisfaction and sales force performance?
- How does customer satisfaction affect the sales force performance?
- What is the role of customer satisfaction between sales force automation and sales force performance in dairy industry of Pakistan?

## 2. LITERATURE REVIEW

Overall, sales force automation refers to the use of software, hardware and telecommunication equipment in administrative and selling activities. SFA automated the systems like software, hardware and telecommunications technology to obtain, analyze, access and exchange of high quality information to promote the sales force effectiveness and productivity [5]. SFA can improve communication and quality of sales exercise through speedy access to concerning and appropriate information [6]. SFA involves an indicative potential for efficient supplier and sales management that cannot be neglected by sales management. Therefore, this is a phenomenon that deserves strong research focus. Today sales forces are facing many challenges. The relevant knowledge about how to use SFA can be helpful to make impact of SFA and other factors that affect the use of the unit, which in turn should help companies to maximize their return on investment in SFA technology.

SFA technology fundamentally improves organization's performance [7]. Activities and functions of the sales force make the most of the marketing budget and a major source of income and are very important for the success of organizations [8]. Companies around the world are investing heavily in SFA with the aim of enhancing the performance of their sales persons [9]. SFA comprises of communication technologies such as pagers, phones, wireless devices e.g. Blackberry, car fax and the internet, which results in changing functions of the sales persons. Due to usage of technology, sales persons are required to be communicable all the time with customers and administrators. Sales executives may also be encouraged to apply the technology because of competition and use of technology by other companies [10]. Nature of SFA systems varies from one company to another. SFA system combines many activities to support the main goal: to improve the collection, processing, analysis and dissemination of information to increase the productivity of the sales persons for improving relationships with customers [11].

Some activities are compatible with SFA include the word processing, use of e-mail, personal information management, financial management, making presentation and delivery. The latest trends in marketing propose that to manage customer relationships effectively; organizations are adopting SFA applications [12]. SFA systems have changed the trend of marketing. These systems introduce many tools like software and programming in an effort to make sales people more effective and efficient [13].

Customer satisfaction has a significant impact on the current and future development of an organization [14]. A major source of satisfaction is positive interactions with the sale of a business and personal customer service. Customer satisfaction is influenced by various employee contacts like customer services, distribution and manufacturing [15].

Retailers identified that customer satisfaction plays an important role in a flourishing business strategy. The accurate nature of this function is not clear, and sometimes companies concerned on how satisfaction should be maintain. The increase in satisfaction leads to maximum sales. Today, retail sales executives are doing efforts to carry out customer satisfaction surveys. However, it seems that data can be used to easily control the specific aspects of the

store and the time of satisfaction. Retailers who are well known about the relationship between sales development drivers and customer satisfaction can prevent an unsatisfactory experience. Therefore, the retailers enjoy higher level of income payments in relation to their competitors who make the right decisions to satisfy customers. The study targets the relationship between satisfaction, sales performance and perceptions of attributes[16].

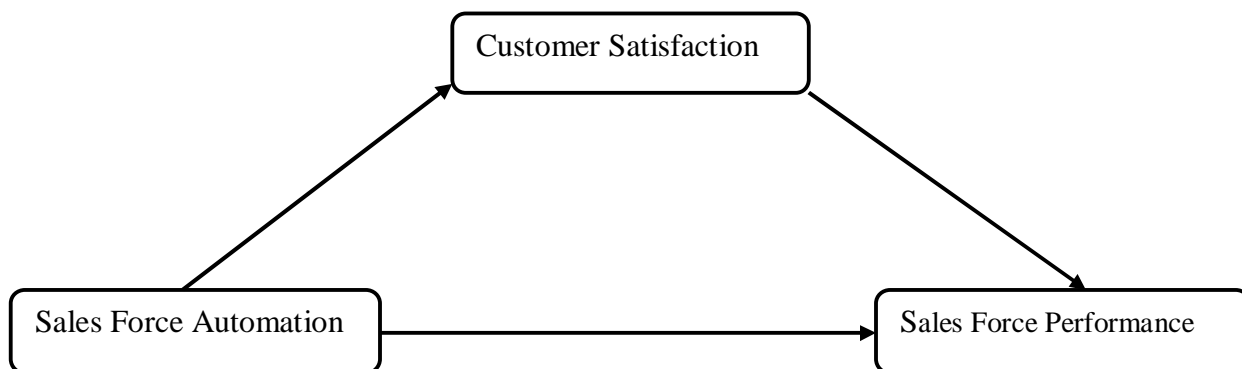
Satisfaction factors vary depending on the services and sectors, nature of the products; the empirical studies provide an evidence of their impact on overall satisfaction. The satisfaction can be defined as assessment process. Cognition is not actually the satisfaction but provides the basis for the formation of satisfaction and the conception of consumer satisfaction can be explained by focusing on a particular convention or a collective perspective[17].

Improve the performance of employees in organizations is a primary target for organizations to increase ambition or competitiveness [18]. Sales force is developing a group of employees which has a direct impact on business results. SFA formulate business value by enhancing the performance of the supplier, which must bring a positive effect on the overall company's performance[19]. Supplier performance can be described as the implementation of sales person behavior and results of these behaviors help to achieve company's goals [20]. The efforts of sellers are more positively and frequently measured than other types of company personnel [21].

Flexible selling allows sellers to fit their buyers to adapt, according to sales staff ability to build relationships with buyers and improve sales force performance [22]. In these competitive and dynamic markets, the main challenge for sales executives is designing the strategies to enhance the sales force performance. Work performance is central and critical concern in sales management. The measurement of performance provides instructions for management decisions regarding promotion, training, compensation, and a base to enhance the performance or recommend termination [23]. Experienced salespeople are able to use the information and knowledge to improve performance, the practice of flexible selling and improve competitive advantage of your company in the market. Enhancements in satisfaction elements, in turn; improve overall customer satisfaction and greater customer satisfaction leads to higher sales.

### 3. Theoretical Framework and Hypotheses Development

Figure 3.1 Research Model



H1. Sales force automation positively affects the customer satisfaction.

H2. Customer satisfaction positively affects the sales force performance.

H3. Customer satisfaction plays the mediation role between sales force automation and sales force performance.

### 4. RESEARCH METHODOLOGY

The study implied quantitative techniques and deductive approach. In the present study questionnaire was used as data collection method. The personally administered questionnaire used as data collection method. The questionnaire is divided into two parts to record answers of two groups of respondents i.e. executives & retailers of milk industry. 5-point likert scale has been used in the questionnaire. The part one and part two of constructs have 11 items and 3 items respectively. The initial questionnaire was developed in English and the part 2 of questionnaire related to retailers was translated to Urdu language to facilitate the survey. The present study used convenience sampling. The sample is equally divided into two groups of respondents i.e. executives & retailers. Four companies of dairy industry of Pakistan were selected for data collection named as Nestle, Engro Foods, Nurpur and Haleeb foods. These four companies are specifically selected on the basis of high market share and competition. Two types of samples have been selected, Company executives and retailers. Data was collected from five major cities i.e. Islamabad, Rawalpindi, Lahore, Sahiwal and Faisalabad of Pakistan. The number of respondents was 240 and there

were no missing figures. Data analyses were done using AMOS Graphics and SPSS software. Reliability test, Confirmatory Factor Analysis (CFA) and regression analysis were used to analyze data.

## 5. Data Analysis and Findings

Table 5.1 Demographics of Respondents

Gender	
Male	98%
Female	2%
Age	
18-39	61%
30-39	37%
40-49	2%
Company Percentage	
NESTLE	26%
ENGRO FOODS	24%
NURPUR	26%
HALEEB FOODS	24%

Table 5.1 shows the total sample size was 240. And there were 98% males and 2% females. Total age groups were three. Data collected from the four major companies. Number of questionnaires filled by each company showed in table. Table 5.2 shows the experience of the company executives with number of respondents.

Table 5.2 Experience of Company Executives

Experience (Years)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Number of persons	15	41	42	36	30	29	12	15	6	6	2	1	1	3	1

### 5.1 Construct Validity

All constructs used in this study are adapted from various studies which are conducted in different environments and situations in different countries. Table 3 shows the results of CFA. From the results, it can be found that all the factors loading were equal or above the minimum criteria 0.5 except 1 item, which is very close to 0.5. Table also shows the values of variance extracted (VE) are close to or more than 0.5 which is almost equal to recommended value 0.5 [24].

Table 5.3 Results of Confirmatory Factor Analysis (CFA)

Constructs and Items Description	Factor Loadings	VE
Sales Force Automation		0.54
1. Using our Sales Force Automation [SFA] system helps sales force team to increase sales.	0.641	
2. Interaction of sales force team with our [SFA] system is clear and understandable.	0.764	
3. Sales Force finds it easy to get the [SFA] system to do what they want it to do.	0.680	
4. Using our [SFA] applications enhances sales force effectiveness in their job.	0.755	
5. Sales Force team found our [SFA] system easy to use.	0.791	
6. Using our [SFA] program in job increases their productivity.	0.763	
7. Sales Force team found our [SFA] system useful in their job.	0.770	
Satisfaction		.57
1. Overall, we are satisfied with Firm.	0.763	
2. We are pleased with what Firm does for us.	0.741	
3. If we had to do it again, we would still choose to use Firm.	0.765	
Sales Force Performance		.39
1. We compensate salespeople based on the quality of their sales activities.	0.467	
2. We use incentive compensation as the major means for motivating salespeople.	0.732	
3. We make incentive compensation judgments based on the sales results achieved by sales-people.	0.706	
4. We compensate salespeople based on the quantity of their sales activities.	0.547	

## 5.2 Construct Reliability

Chronbach's alpha is used to measure reliability and all values which are above 0.7 are acceptable to find out the reliability. Following table shows the values which are above 0.7, it means all values are reliable [25]. The SFA, SFP and CS holds values of .893, .705 and .799 respectively.

Table 5.4 Reliability Analysis

Variables	Cronbach's alpha	Number of Items
SFA	.893	7
SFP	.705	7
Satisfaction	.799	3
Overall	.640	17

## 5.3 Model Fitness

Fitness of the model results shows that, although the  $\chi^2$  value (560.696) is significant ( $p < 0.001$ ) and  $\chi^2$  to  $df$  ratio threshold value is three. Here it can be notice that the value of this ratio ( $\chi^2/df = 2.549$ ) is less than the threshold of three, it proves the fitness of model. This study assesses the model on the bases of Comparative Fit Index (CFI), Normed Fit Index (NFI), Incremental Fitness Index (IFI) and Tucker Lewis Index (TLI). Fit indices evaluation is described as: CFI (0.86), NFI (0.79), IFI (0.86) and TLI (0.83). All the values are close to cutoff value of 0.9 which is acceptable. Root Mean Square Error of Approximation (RMSEA=0.080) is absolute fit indices and it is equal to the cutoff value 0.08 and this is acceptable. All these values proved the fitness of model.

## 5.4 Regression Coefficients (Direct Effects)

Table 5.5 Regression of SFA and Satisfaction

Variable	b	SE	$\beta$	t
Intercept	2.215	.292	na	7.585*
SFA	.383	.076	.311	5.041*

Note. R = 0.311, R<sup>2</sup> = .096, Adj. R<sup>2</sup> = .093, F = 25.407, df = 1,238, MSE = .78718, n = 240

\* $p < .001$

Table 5.5 shows that the R value (0.311) determines the medium level correlation between the independent (SFA) and dependent (customer satisfaction) variables and the proportions of the variance is 9.6 %, which is determined by the value of R<sup>2</sup>. The value of F on  $df$  (1,238) is 25.40 and is significant ( $p < .001$ ) which shows that the model is fit. The SFA has a significant ( $p < .001$ ) and positive impact with the  $\beta$  value of 0.311. The value of t (5.041) supports the Hypothesis (H1) because t value is significant.

Table 5.6 Regression of Satisfaction and SFP

Variable	b	SE	$\beta$	t
Intercept	3.165	.175	na	18.090*
Satisfaction	.196	.047	.263	4.205*

Note. R = .263, R<sup>2</sup> = .069, Adj. R<sup>2</sup> = .065, F = 17.684, df = 1,238, MSE = .59490, n = 240

\* $p < .001$

Table 5.6 describes the regression about impact of CS on SFP in which the R (0.263) determines that correlation between independent variable (CS) and dependent variable (SFP) is of low level and the variability between the variables is 6.9 %. The F-value on  $df$  (1,238) is 17.684 which is significant at " $p < .001$ " that shows the model is fit. The customer satisfaction has a significant value ( $p < .001$ ) and weak positive impact with the  $\beta$  value of 0.263. The significant value of  $t=4.205$  supports the H2.

Table 5.7 Regression of SFA and SFP

Variable	b	se	$\beta$	t
Intercept	1.719	.179	na	9.600*
SFA	.572	.047	.622	12.265*

Note. R = .622, R<sup>2</sup> = .387, Adj. R<sup>2</sup> = .385, F = 150.427, df = 1,238, MSE = .48266, n = 240

\* $p < .001$

Table 5.7 above shows the regression results of impact of SFA on SFP. The “ $R=0.622$ ” determines that there is high level correlation between the independent (SFA) and dependent (SFP) variables, and the proportions of the variance is 38.7 % which is determined by the value of  $R^2$ . The F-value on  $df(1, 238)$  is 150.427 and is significant ( $p < .001$ ) which shows that the model is fit. The SFA has a significant ( $p < .001$ ) and positive impact with the  $\beta$  value of 0.622. The significant t-value (12.265) supports the H3.

### 5.5 Mediation Effects

Table 5.8 Regression of SFA, satisfaction and SFP

Variable	b	SE	$\beta$	t
Intercept	1.592	.199	na	7.996*
SFA	.550	.049	.598	11.235*
Satisfaction	.057	.040	.077	1.449**

Note.  $R = .627$ ,  $R^2 = .393$ , adj.  $R^2 = .388$ ,  $F = 76.610$ ,  $df = 2, 237$ ,  $MSE = .48155$ ,  $n = 240$

\* $p < .001$ , \*\* $p < .05$

Table 5.8 illustrates the results of impact of mediating variable (CS) on independent (SFA) and dependent (SFP) variables. This result shows that there is partial mediation because  $\beta$  of SFA reduced due to mediating variable (CS), but is still significant at ( $p < .001$ ). SFA signification shows that CS partially mediates this relationship.

## 6. DISCUSSION AND IMPLICATIONS

The findings of study matched with earlier studies and show the positive and significant impact of SFA on CS which results in acceptance of H1. CS influence on SFP is also positive and significant in the present study which supports the results of previous studies. H2 is also supported according to results that CS positively affects the SFA. SFA has also positive and direct impact on SFP, like various studies discussed in the literature of this study. So this relationship has also significant level and support the H3 i.e. SFA positively affects SFP. Retailers identified that CS plays an important function in a flourishing business strategy. Retailers who are well aware about the relationship between sales development drivers and CS can prevent an unsatisfactory experience. Henceforth, it is proved that CS plays mediating role between technology use (SFA) and performance which validates H4 i.e. CS plays mediating role between SFA and SFP. This study was conducted to test the influence of SFA system usage on CS and SFP and results showed the significant positive influences. This study helps executives in improve their learning about how to adopt the SFA systems to improve higher CS and SFP. In this way, they can increase their productivity to achieve the overall goals of organization. This study can also be applicable in any other industry and contexts as well.

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