



## EFFECT OF CRM DIMENSION ON MANUFACTURING SMEs OF PAKISTAN: THE MODERATING EFFECT OF HUMAN CAPITAL

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### ***Abstract:***

The current study examines the connection between Pakistan's manufacturing small and medium companies (SMEs), CRM dimensions, and human capital. This study has used a qualitative approach in order to look into how the CRM factor affects SMEs' performance and how human capital acts as a moderator.

This study has used PLS-SEM analysis in order to test the hypothesis. From the current study, the researcher found that all CRM dimensions play a big role in relationship with SMEs performance and also moderating effect of human capital have a significant relationship except key customer focus in both direct and indirect relationship.

This is the first study in Pakistan that focus on CRM and SMEs performance relationship with moderating effect of human capital. This study will help management to take corrective measures to increase customer loyalty as well as revenue. It will also help in improving current products and customer service for the future.

**Keywords:** CRM Dimensions, Knowledge Management, Key Customer Focus, Manufacturing SMEs Performance, Human Capital, CRM Organization, Technological Based CRM.

### **1. Introduction**

Performance is a vital part of any organization because all decisions are made on behalf of the current organizational performance (Li et al., 2018); and effectual leadership is responsible (Katzenbach et al., 2015). Performance evaluation is crucial for determining the organizational effectiveness (Borman et al., 1997; Moine et al., 2018; Brockman et al., 2017, Steers et al., 2017);

considering larger role and it is the most argued topic in the present research issues (Haseeb et al., 2019). Performance is the main subjects in the study of business management fields which has been the subject of the most extensive empirical and conceptual research (Carter, 2018).

The concept of "Performance" is frequently used to describe the accomplishment of organizational objectives and goals as an organization's success (Macedo and Joneses et al., 2016). Despite the word "Performance" has been around for a while in different components of management like management of performance, performance of firm, measurement of performance, assessment of performance, and evaluation of performance, the specific function of performance is still unestablished (Schaltegger and Wagner, 2017).

Customer relationship management is the most important tool in marketing, which helps an organization at every point to fulfill customized product to their loyal customer (Baran and Galkention a 2016; Goel et al. 2015). Customer relationship management helps an organization to identify, retain and maintained profitable long term relationship with their customers. The main reason for retention of the customers is the cost that required to attract new customer which is almost 5 times greater than cost of retain and maintain strong relationship with old customers (Deepak and Jeyakumar 2019).. According to Pareto Principal, every organization earns 80% of revenue from only 20% of the total customers. This 20% of customers are those customer who are loyal to your brand.

SMEs (Small and medium enterprises) of developing countries have faced challenges with their CRM implementation and execution process as well as weak customer relationship, and also lack of customer information regarding their names and addresses (AlQershi et al. 2020). In under developing countries, many multinational organization has entered in the market, while local organization left behind due to their inadequate CRM practices, lack of human resource and insufficient amount of innovation to improve organizational performance (Al-Nashmi et al., 2016). Although this issue can be discussed theoretically, a study of the CRM dimensions, human capital, and Performance of manufacturing SMEs is necessary to fill potential gap that has to be filled for further growth.

### **1.1 Background:**

As Pakistan is under a developing country in the last 75 years of independence but this country has not strengthened its economy. In the manufacturing SMEs of Pakistan, there are lots of international brands are available. It is easy to enter in Pakistani market for foreign businessman because in Pakistan operating cost is very low compared to other countries. For this reason, the foreign firm is continuously entering in market and easily generates most of the total revenue of the industry. It is an unhealthy activity for our local firms because they easily lose market share and they are not able to compete with the foreign businessman. To compete in the market, a local manufacturer must adopt CRM in their organization and do more CRM practices as well improving their performance by concentrating their efforts on innovation and human capital (Al-Kholidy and Al-Nashmi, 2016). To compete foreign products, local manufacturer should imitate them for the sake of betterment of organizational performance in terms of financial and non-financial.

Accordingly, the development of SMEs is straightly related to financial performance. Almost 78% of the workforce is utilized by organizations in the modern area, which additionally sends out 25% of manufactured products and contributes 35% of the assembling value addition. According to researcher, "SMEs account for 75 percent of more than 3.2 million enterprises in Pakistan and have a 35 percent stake in value addition; Pakistan's SMEs unquestionably can greatly boost their current share of around \$83 billion toward GDP" (Farid, 2016). Also, according to

Pakistan Today (2021), SMEs of Pakistan generally "contributed around 33% to GDP, while 25% to exports, and 74% to creating industrial employment that highlighted their crucial position within the economic development of the country".

According to the Economy survey of Pakistan 2021, Manufacturing companies contribute 65% in GDP of Pakistan. 74% of the total 65% is belong to large enterprises (LE), while remaining goes to SMEs. The government authority understood that to completely utilize the capability of the SMEs area and educate them in a development direction, more instruction and proactive measures were required. Recently, the State Bank of Pakistan (SBP) mentioned input from all banks to make an activity plan for the arrangement of SMEs advancement. SMEDA (Small and Medium Enterprises Development Authority) focus on a powerful SMEs area, which will help the economy by declining the need for costly imports. Furthermore, SBP has set an objective to expand SME financial consideration by 2021 to help the area which need to be considered for critical development and improvement. SMEDA is an institute which are working to promote SMEs development and policy making for SMEs and it is originated in 1998.

## **1.2 Problem Statement:**

According to the Economic Survey of Pakistan 2021, there are 1 million manufacturing SMEs. It is very much shocking for an economist that they are contributing to GDP in a very small percentage. In 2021, there were 3.2 million SMEs were operating and contribute to GDP 25% but in 2022, there are 5.2 million SMEs are operating but contribute to 26% of GDP . it is not good contribution to GDP while population of SMEs increased by 62.5% in 2022. It is an alarming situation for economists and other government authorities who are responsible for SMEs, what is the reason behind the low performance of the manufacturing SMEs in Pakistan?

## **1.3 Research Objective:**

As Pakistani SMEs contribute to GDP and also perform well in export. But manufacturing SMEs are unable to fulfill the need of local customers just because of lacking CRM adoption. Because of this deficiency manufacturing SMEs are failed to make the proper decisions about customers to create a CRM organization (customer centric). Human capital focus on the employee side to enhance organizational performance financially and non-financially both. Human capital help in creating positive and strong relationship between CRM and performance of manufacturing SMEs as well as human capital increase productivity through employee skills and knowledge. This research has been performed to improve the performance of manufacturing SMEs through the effect of CRM dimensions and with the moderating effect of human capital.

## **1.4 Research Question:**

Therefore, in this study CRM has been divided into four main dimensions; knowledge management, CRM organization, Customer orientation, and Technology based CRM. This research addresses the following questions:

- Can CRM dimensions actively help manufacturing SMEs enhance their performance?
- Does human capital experience any effects from the CRM dimensions?
- Does human capital affect the performance of manufacturing SMEs in respect to CRM dimensions?

## 2. Literature Review

This research has three variables which are CRM dimensions, SMEs performance and human capital. These variables are further discussed in literature review.

### 5.1 SMEs Performance as Dependent Variable:

As per previous research about performance, high management of business has a view point that management of customer relationship affect the overall performance of small and medium enterprises (Sukaatmadja et. al., 2017; Galv~ao et. al., 2018; Marolt, et. al., 2018). Different studies define that level of an organization's success can be measured to know the performance of a business ( Soltani et al., 2018), also CRM technology enhanced performance of the company eventually (Aldoseri et. al., 2019; Lebdaoui et al., 2020;).

There are lots of studies are available on the effect t of CRM software technology on organizational performance (Marolt et al., 2018; Branner et al., 2020;). CRM software provider offer organization a unique way to narrow down the distance between organization and their customer which has been increase because of expansion globally (Todman, 2001). CRM contribute as a main substantial indicator of performance of organization (Reinartz et. al. 2005). Most of the research in CRM prove that there is a significance relationship among CRM and different aspects of organizational performance. According to Alem (2013), CRM is the major variable of financial and marketing performance and also improve internal learning process. Cost incurred in CRM technology and revenues are the parameters to measure small and medium enterprises (SMEs) performance (Ahani et al., 2017 and Minh Ngo et al., 2018;). CRM technology expense include all types of customizations which helps in communicating within organization to identify the need of loyal customers through learning from knowledge and communication effectiveness (Sooltani et al., 2018).

In the study related to performance parameters, Abdul Lateef et al. (2010) suggested that the performance of the organization is separated into financial and non-financial perspectives. Based on subjective viewpoints that can be adopted in accordance with customer acquisition, retention, and relationships, performance can be quantified in order to boost market share and company performance. In the past, performance was measured by growth of sales, profit, cash flow, ROI, volume of sales, product innovation, market share, NPD, Research & Development activities, and Initiatives of cost reduction (Gupta et al., 1984; Kaplan et al., 1992). In the recent study on Pakistan, data was gathered from primary sources of Pakistani manufacturing small and medium enterprises (specially from Karachi) to measure firm performance.

### 5.2 CRM Dimensions as an Independent Variable:

There are some studies available on CRM which stated that CRM is not just an information tool, it is more than a tool which is responsible for contribution in a company's economic value and goodwill through enhancement of customer service and income generation from customers (Marolt et al., 2018; Hrnjic, 2016). Customers are the main source of the business to generate income. There are famous saying about customer value "Customer is king" and "customer always right". CRM play main role in According to Minh Ngoo (2018), CRM is the tool that has ability to grab its profitable customers through maintaining ng strong relationship with them and also improving its goodwill as compared to other competitors., These capabilities are based on CRM resources that are CRM processes, CRM technology, CRM organization and Customer orientation.

A fully CRM based firm can critically determines the performance of the current day in a competitive environment (Castelão et al., 2015). A firm can collect a large amount of information

about the customer to increase satisfaction of customers or the number of customer retention (Aldoseri et. al., 2019). Customer Relationship Management can influences the behavior of customers; a live example of the benefit of CRM is Amazon.com which generate 59% of sales from its existing customers by developing a strong strategy to retain customer and get customer's loyalty (Battor and Battor, 2020).

In order to successfully adopt CRM, a customer-focused structure, cultures, policies, and reward systems must be broad (Ryals and Knox, 2001). Corporate-wide CRM focus should be fully reflected many times in every interaction with valuable customers who have been identified by a "lifetime value" calculation (Schmid et al., 1998;; Jain et al., 2002). The ultimate objective is to develop strong connections with customers that will make the seller company profitable (Vandermerwe, 2004). Salespeople typically feel more empowered and drivn to preserve long-term customer connections by providing different specialized products and services when they have access to enterprise-wide information and internal support for cruciãl customer relationships. (Kotler and Armstrong, 2003).

There are many studies conducted on CRM importance (Abdullateef et al., 2010; Akroush et al., 2011;) and use of CRM is increasing day by day in various sectors, in the context of manufacturing, there are some studies conducted on CRM (Teng et al., 2007; Mohamad et al., 2014;). According to (Sin et. al., 2005), CRM has four main behavioral dimensions. CRM dimensions includes: technology-based CRM , CRM organization, Key customer focus, , and CRM knowledge management.

### **5.2.1 Key Customer Focus:**

In the context of marketing concept; many literatures have used the terminology like market orientation, market driven firm, customer orientation or market focused organization in order to explain the categories of organizational focus where the organization treated customer need as the base of organizational plan and strategy design (Yueh et al., 2010;; Lukas and Ferrell, 2000; Narver et al., 1990).

Key customer focus involves having a mindset as customer-centric (Sheath et al., 2000; Vandermerwe et al., 2004), as well as consistently delivering particular key customers with higher and added value through individualized or customized solutions to retain key customers for the long term. The key feature of this CRM dimension completely includes customer-centric marketing, long term customer identification, which helps in gaining incentives as enter the new millennium. Key customer focus helps in comprehending and addressing the needs, wants, and resources of certain customers (Sheith et al., 2000).

### **5.2.2 CRM Organization:**

CRM organization is essential for any firm because it defines that how firms organized and operate business process among work force and customer ( Sin et al., 2005;. Wang et al., 2006; Yim et al., 2005). The entire firm should be focused on establishing strong connections, with a deep focus on key customers integrated into its customer relationship management. The hierarchical process should be adaptable and, if necessary, reinvented in order to promote customer-centric values and enhance the coordination of customer-engaged, cross-cutting groups. (Brawn: 2000;; Homeburg et al., 2001 Sheth, 2002).

### **5.2.3 Knowledge Management:**

Successfully transforming customer data into customer information is the foundation of successful CRM, which is closely related to knowledge management (Freeland, 2003 Peppard, 2000). Particularly, in order to enhance customer desirability, data of customers should be obtained through interaction or collaboration with all company capabilities or areas of the business (Brahman et al., 2003), with the objective of creating a 360-degree customers perspective that is created, maintained, and frequently updated (Fox Et al., 2001). Salesforce is equipped with the crucial treasure of essential customer knowledge to carefully plan marketing offers to fit in the ideal needs of the actual and potential customers” (Armstrong et al., 2003).

### **5.2.4 Technology Based CRM:**

The latest CRM-based technology will help to leverage the organization to get optimized results from many CRM-oriented activities like knowledge management. Most CRM applications get the advantage of technological innovation benefits in collecting and analyzing customer information to use for further planning. There are lots of management tools which Store information like database marketing, data warehousing, data minning, and implement technology to leverage the companies. These data help companies and their sales team to gather, analyze and share information about customers for improvement of communication and presentation of sales team and also convey offer presentation.

Accordingly, firms need to have systems available for managing customer interactions, tracking of customer satisfaction, and reward systems establishment. The components of an organization are people, processes, and technology. Similarly, CRM is aligned to provide the maximum customer experiences and promote long-lasting relationships. In the present study, CRM dimensions (technology-based CRM, CRM organization, key customer focus, and knowledge management) used as CRM components like technology, people, procedure, and approach. Following are the hypothesis related to CRM dimension:

**H1a:** There is positive correlation among knowledge management (KM) and performance of manufacturing SMEs of Pakistan

**H1b:** There is positive correlation relationship among key customer focus (KCF) and performance of manufacturing SMEs of Pakistan

**H1c:** There is positive correlation relationship among CRM organization (CO) and performance of manufacturing SMEs of Pakistan

**H1d:** There is positive correlation relationship among technology-based CRM (TB) and performance of manufacturing SMEs of Pakistan

## **5.3 Human Capital as a Moderator:**

Human capital refers to a company's employees and their characteristics like skills, knowledge, expertise, experience, responsibility, interpersonal skills, behavior, and motivation (Edvinsson et al., 1997; Roose, 1997; Stewart 1997; and ; Bontis, 1998); consequently, it represents the ability of organizational individuals to make a talented move and thereby produce value for the organization. According to (Khalique et al., 2011), a high level of human capital is required to meet this dynamic market environment with lots of improved and advanced skills to enhance the performance of the organization. This study will help in getting a sustainable competitive advantage and optimize the firm's performance (Hayton, 2003).

Not similar with physical and financial resources, human capital cannot be fully owned or even controlled by the company because they go off every night when work is done or may essentially disappear if employees chose to switch organization (Roose et al.; 1997; Award 1996; High-roller 1996;). Employees play a vital role in influencing the value that customers receive or encounter when interacting with the business because they create the products and provide the services of the organization. The high level of expertise, talented, and motivated personnel of the organization generally possess a better value for the company because they are probably produce for customers. So that, we predict the following hypothesis:

**H2a.** Human capital in Pakistan acts as a moderator in the relationship between the performance of manufacturing SMEs and CRM organisations (CO).

**H2b.** Human capital in Pakistan acts as a moderator in the interaction between knowledge management (KM) and manufacturing SMEs' performance.

**H2c.** Human capital in Pakistan moderates the relationship between key customer focus (KCF) and manufacturing SMEs' performance.

**H2d.** Human capital in Pakistan acts as a moderator in the interaction between technology-based CRM (TB) and manufacturing SMEs' performance.

### 3. Study Methodology

This research has used following research type, sampling, data collection instrument and measurement technique.

#### 6.1 Type of Research:

This study has followed qualitative research. In this research, the author going to answer the questions whether CRM dimensions have positive impact on performance of manufacturing SMEs (Small and Medium Enterprises) or not.

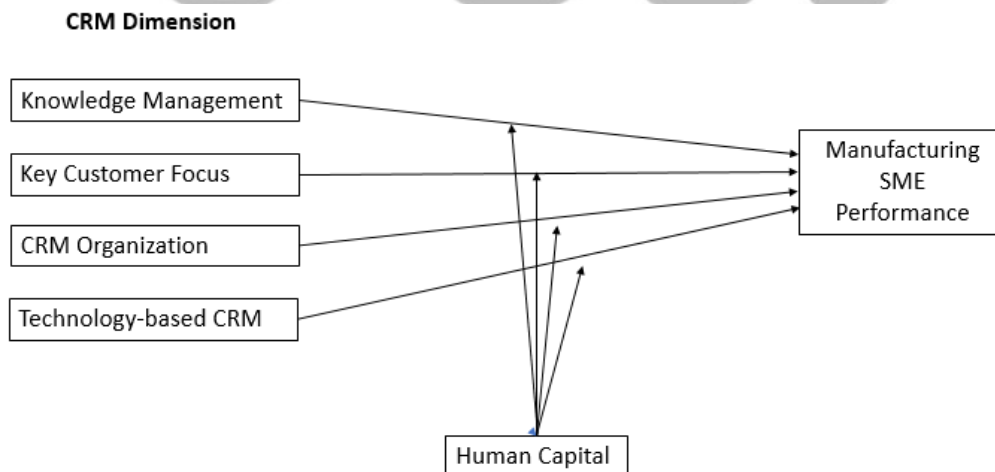


Figure 1 Conceptual Model

## 6.2 Sample:

In Pakistan, there are 5.2 million SMEs (Small and Medium Enterprises) are working which contribute 40% of the GDP of the country (Najeeb, 2021). In SMEs, there are three sectors involved in SMEs. First one is service sector, second one is trading and third one is manufacturing sector. Specifically, here author has written about manufacturing firm which is about 1 million population in Pakistan and in Karachi there are 10% Of SMEs working. Author is adopted the sample size of 200 ( $n = 200$ ). The sample size is quite good because the research found the responses have saturation in responses (Monique et al. 2021),so author stoped on this sample size. For sampling, author adopted random sampling to get the responses of questionnaire.

## 6.3 Data Collection Instrument:

Author of this research adopted questionnaire and interviews of middle management for the purpose of data collection. Respondents of this survey are managers and assistant managers of SMEs (Small and Medium Enterprises). This is the best way to get answer of the specific question to analyze the result. It is convenient for author to get maximum responses.

## 6.4 Measures:

There are three main variables; CRM dimension, performance of SMEs and human capital. which have been discussed in present research.

### 6.4.1 Research Measurement:

This research adopted items of construct from various paper. This research adopted 4 items of performance to evaluate SMEs performance from (Gupta et al., 1984) and (Mokhtar., 2014). Items of CRM dimension has been taken from (Sin et al., 2005).

And items of human capital were taken from (Sharabati et al., (2010). Human capital is taken to find out the employees intelligence, experience and expertise to get optimize benefit. Total received. Those 220 responses have few responses 250 questionnaire were distributed among Karachi based SMEs. From which 220 responses were . which were not completely filled. Returned response of questionnaire has been showing in Table .1.

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#### Questionnaire Responses

Total number of questionnaires distributed	250
Total number of non-response questionnaire	30
Total responses returned	220
Number of responses used	20
Number of responses unused	200
Response rate	88%

Note: Missing data is the reason for not considering response as useable.

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*Table 1 Questionnaire Responses*

<b>Demographic Data</b>		
Age	21 – 30	111
	31 – 40	68
	41 - above	21
Gender	Male	182
	Female	18
Position	Upper management	20
	Middle management	153
	Lower management	27
Education	Matric	0
	Intermediate	5
	Bachelor's degree	137
	Master's degree	58
Experience	1 – 2 years	39
	3– 4years	83
	5 years and above	78

*Table 2 Demographic Characteristics*

#### **6.4.2 Statistical Measurement:**

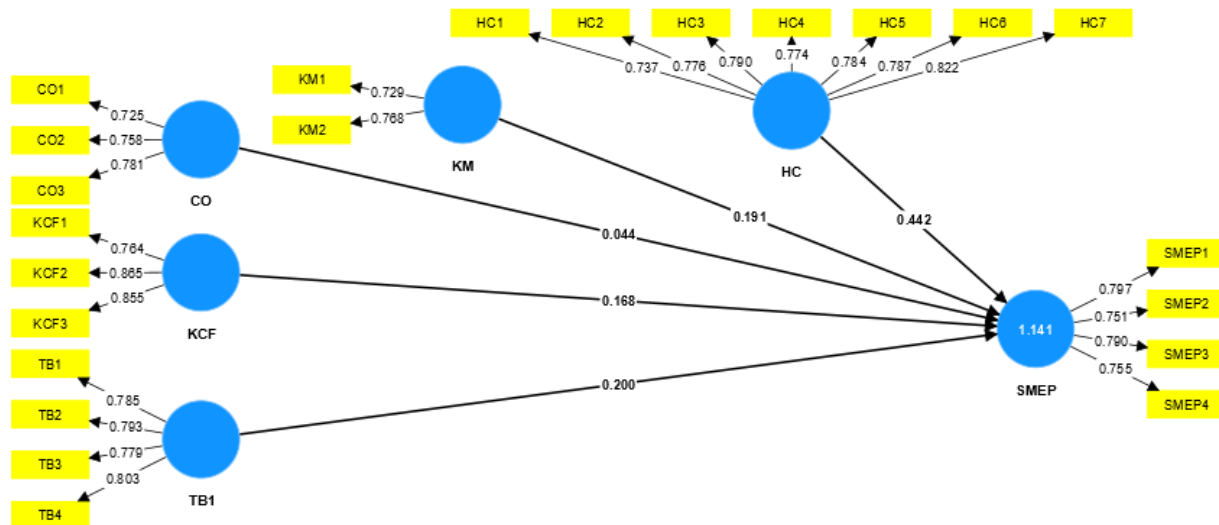
In this study, partial least square (Smart PLS) software used to evaluate the result. The biggest justification for using PLS in this research, with the most compelling finding being that PLS-SEM is a reliable technique to use for multivariate data analysis (Hair et al., 2010); it carries out simultaneous evaluations of Several dependent relationships. In this study, there is conceptual model which has moderating variable. Smart pls is popular for evaluating moderating effect easily as compared to other software. Smart PLS has become popular for structural equation model because it can easily calculate validity and moderating effect.

## **4. Result and Data Analysis**

In this study, partial least square (Smart Pls 4) is used for data analysis. Two way approach has been used in this study. The first step is to find measurement model, and the next one is structural model.

## 7.1 Measurement Model Assessment:

Assessment of quality of variables is include in measurement model. Quality of construct have two criteria which includes reliability and validity test. There are three types of validity available in Smart PLS which are content validity,, convergent validity, and discriminant validity.



Measurement model has three types of validity test. Precisely, Content validity of the scales has verified by adapting the items of current scales. And the convergent validity has proved by using Cronbach's alpha, and composite reliability by using average variance extracted (AVE). While Discriminant validity determine the level of latent construct differs from other constructs (Henseeler et al., 2015). The average variance extracted (AVE) should be used to assess discriminant validity with the help of correlations between latent components being compared to the AVE square root (Fornell and Larcker, 1981).

Figure 2 Assessment of Measurement Model

In convergent validity, greater than 0.70 value is the value which is acceptable and in average variance extracted (AVE) greater than 0.50 is acceptable value (Fornell et al., 1981). Current study have obtained value of Cronbach alpha has which ranges (0.718 To 0.869) which accept the validity of the items, loadings ranging from (0.725 to 0.865) which also accepted the item loadings and average variance extracted (AVE) range from (0.561 to 0.688). Output of the Cronbach alpha and average variance extracted (AVE) shown in fig 2 and table 1. Hence, construct satisfy the composite reliability and convergent validity

The degree to which one particular latent concept differs from other specific latent constructs is known as discriminant validity (Heisler, 2015). As convergent validity satisfied the construct then discriminant validity performed to check the cross loading of the construct.

Construct	CO	HC	KCF	KM	SMEP	TB
CO	0.755					
HC	1.068	0.782				

KCF	1.095	1.048	0.829			
KM	1.115	1.066	1.103	0.749		
SMEP	1.125	1.075	1.106	1.115	0.774	
TB	1.064	1.035	1.086	1.095	1.095	0.79

Table 3 Fornell-Larcker criterion (Validity test)

Construct	Items	Loadings	Cronbach's alpha	rho_A	Composite reliability	AVE
CRM Dimension	KM1	0.729	0.718	0.719	0.718	0.561
	KM1	0.768				
	CO1	0.725				
	CO2	0.758				
	CO3	0.781	0.867	0.872	0.868	0.688
	KCF1	0.764				
	KCF2	0.865				
	KCF3	0.855				
	TB1	0.785	0.869	0.869	0.869	0.624
	TB2	0.793				
	TB3	0.779				
	TB4	0.803				
SME Performance	SMEP1	0.797	0.856	0.857	0.856	0.599
	SMEP2	0.751				
	SMEP3	0.79				
	SMEP4	0.755				
Human Capital	HC1	0.737	0.917	0.917	0.917	0.611
	HC2	0.776				
	HC3	0.79				
	HC4	0.774				
	HC5	0.784				
	HC6	0.787				
	HC7	0.822				

Table 4 Loadings, Items, Validity and Reliability

The test of discriminant validity compared the value of indicator loadings with the value of cross loadings (Henseler et al., 2015). In case of discriminant validity, There must has been exceed indicator loading as compared to cross loadings. Current findings satisfy the above criteria of cross loadings. Table. 2 showed the value of cross loading of the items.

## 7.2 Assessment of Structural Model:

After performing the validity of measurement model, this research has further performed structural model assessment. For the purpose of getting result of relationship of construct, standard

bootstrapping method is used with subsample of 5000. In smart pls, bootstrapping process is used to determine the significance of estimated path and process coefficient. Subsamples were created in bootstrapping with randomly drawn observation from original data set (with replacement subsample). The subsample is used to determine path analysis and process model. Estimation of structural model are shown in fig. 3 and table 5.

	std beta	t-value	p value	Decisions
CO -> SMEP	0.149	1.843	0.029	Supported
KCF -> SMEP	0.066	0.564	0.753	Not Supported
KM -> SMEP	0.272	3.225	0.001	Supported
TB1 -> SMEP	0.402	7.260	0.000	Supported

*Table 3 Structural Assessment (Direct Relationship)*

From assessment of structural model, above table indicates that all dimensions of the CRM were accepted except one dimension. CRM organization (one of the CRM dimensions) have a significance relationship with manufacturing SMEs performance having a result (std beta = 0.149, t -value = 1.843, p -value < 0.029), hence H1c is supported. Knowledge management (one of the CRM dimensions) have a significance relationship with manufacturing SMEs performance having a result (std beta = 0.272, t -value = 3.225, p -value < 0.001), hence H1a is supported. Technological based CRM (one of the CRM dimensions) have a significance relationship with manufacturing SMEs performance having a result (std beta = 0.402, t -value = 7.260, p -value < 0.00) hence, h1d is supported. while Key customer focus (one of the CRM dimensions) have not a significance relationship with manufacturing SMEs performance having a result (std beta = 0.066, t -value = 0.564, p -value < 0.753), hence Ho is supported. All of the above data indicates that CRM dimensions influence the performance of manufacturing SMEs except key customer focus.

### 7.3 Moderating Effect Among Variable:

Current study has human capital as a moderator. This research has used PLS-SEM in smart pls 4 in order to find the relationship of human capital between CRM dimensions and manufacturing SMEs performance. In order to find moderating result, t-test was applied. The result of moderating effect has been show in table.6.

According to the proposed hypothesis, human capital has a moderating effect between the relationship of CRM dimensions and manufacturing SMEs performance. Based on data analysis, human capital has moderated the relationship among Three CRM dimensions (KM, CO, TB) and manufacturing SMEs performance. In the below Table, data indicates that human capital has not moderated the key customer focus and SMEs performance having result (std beta = 0.035, t- value = 0.910, p- value < 0.182) hence Ho is supported. Although, the results showed that human capital has moderated the relationship among knowledge management and manufacturing SMEs performance (std beta = 0.083, t- value = 1.562, P- value < 0.006), Hence H2b is supported,.

However, human capital has moderated the relationship among CRM organization and manufacturing SMEs performance having a result (std beta = 0.233, t- value = 3.620, P- value < 0.002), hence H2a Is supported. Human capital has also moderating effect on the relationship among technology-based CRM and manufacturing SMEs performance (std beta = 0.543, t- value = 9.041, P- value < 0.000), hence H2d is supported.

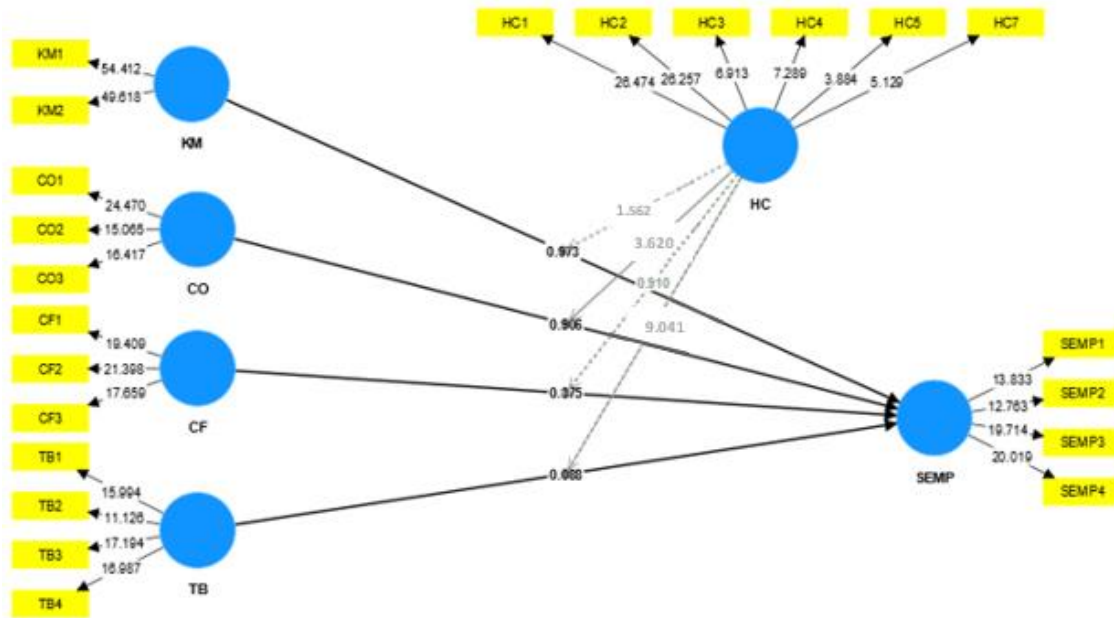


Figure 3 Assessment of Structural Model (Moderating effect)

At the end of partial least square analysis, the R- square value and path coefficient are measured to ensure the performance of model (Haeir et al., 2016). In this study, r- square and path coefficient were examined in structural model. Normally path coefficient should at least 0.2 or 0.3 for acceptance (Hair et al., 2016).

Relationship	std beta	t-value	p-value	Decision
HC x TB1 -> SMEP	0.543	9.041	0.000	Supported
HC x KCF -> SMEP	0.035	0.910	0.182	Not Supported
HC x CO -> SMEP	0.233	3.620	0.002	Supported
HC x KM -> SMEP	0.083	1.562	0.006	Supported

Table 4 Structural Assessment Model (Moderating Effect)

This study revealed that, path coefficient ranging from 0.881 to 0.975. While R- square ranging from 0.562 to 0.742 having a positive result. The variance inflation factor (VIF) is an indicator of the level of multicollinearity in regression analysis. Multicollinearity in a multivariate regression

model happens when there is a correlation between a number of independent variables. In this study, collinearity statistics (VIF) variance inflation factor ranging from 1.457 to 2.565 to show positive result. In this study, there is a positive co-relation between variables.

## 5. Discussion and Conclusion

From the above analysis, researcher is able to revealed that H1a, H1c, H1d are accepted while H1b is not accepted. In case of H1b, Ho is accepted which suggest that key customer has not a significance relationship with manufacturing SMEs of Pakistan. Another hypothesis regarding moderating effect revealed that H2a, H2b and H2d are accepted and have a significance relationship among CRM dimension and performance of manufacturing SMEs of Pakistan. While H2c is not accepted. In case of H2c, Ho is accepted which means both have negative impact of human capital.

This study focus on direct relationship of variables first and then indirect relationship of CRM dimension, SMEs of Pakistan and human capital (Sin et. al., 2005; Vanidermerwe, 2004). This study is completely focused on Pakistani manufacturing SMEs performance which was new area to discover.

Based on the current result, key customer focus does not influence the performance of SMEs of Pakistan. But it is important to satisfy the need and demand of the loyal customers for better understanding of current goods or services.

CRM organization is crucial success factor for Pakistani SMEs and this factor promote communication as a key component. SMEs have to completely focus on creating strong connection, transparent and high-quality communication. This study is completely based on manufacturing SMEs in Pakistan. Based on current findings, CRM organization has significant relationship with manufacturing SMEs performance.

Knowledge management is the most crucial element between CRM and organizational performance. In current study, findings prove that knowledge management has a positive relationship with SMEs performance. Proper focus on knowledge management definitely provide an amazing result in term of growth. Knowledge management helps organization to increase the number of loyal customers by fulfilling their need.

Technology based CRM plays an important role in business. Findings of this research support that technology-based CRM has a significant relationship with manufacturing SMEs performance. The result is based on Pakistani context.

Secondly, human capital moderates the relationship between SMEs performance and knowledge management, CRM organization and technology based CRM. But key customer focus has no impact of human capital.

CRM promotes the need for firms to concentrate on their consumers by offering best goods and services that should make their customers satisfied and willing to return again and again.

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