

# The influence of training courses, customer relationship, and human resource management on customer focus among construction companies

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## Abstract

Reflecting upon language allows teachers, not only to have a greater insight on how English, the language they This study focuses on the influence of training courses, customer relationship and human resource management on customer focus among construction companies. This is due to the lack of information on its effectiveness. These problems may explain why the main players are less responsive to the implementation and practice of a mediating effect of Customer Relationship Management (CRM) and Human Resource management (HRM) on the relationship between Training Courses (TC) and Customer Focus (CF). It is essential that an appropriate model of CRM and HRM be used by administrators and professionals. The proposed model is based on the dependent variable, CF, and the independent variables, TC and mediator (CRM, HRM). This research is a descriptive-survey and inferential type based on the data collection method where parametric tests were used with the help of SPSS. The results of this research can be used in decision making, policy making, and also planning. In conclusion, it can be inferred that the relationship between CRM and HRM is still at its infancy stage, and as such, serious attention is needed among the players in the development of construction companies.

*Keywords:* customer relationship management, human resource management, house building company, customer focus, training courses

## **Introduction**

The construction industry can be described as a substantial economic driver for any country. Construction Companies recognized becoming trusted participants in various sets of strategic alliances is one of the most important requirements of success in a competitive global economy (Grant & Yankson, 2003). This new field of study is focused on building long-term relationships with CRM and HRM and other parties (Chen, 2003). Increased comparativeness means that construction businesses must be able to react even faster and more specifically to individual customer demands to win customer loyalty for as long as possible (Roy & Cochrane, 1999). In order to create competitive advantages and achieve better results, construction business relationships offer opportunities for several organizations (Clarke & Herrmann, 2007). This makes the understanding of satisfaction, retention, and loyalty an important area of research. Hutt and Speh (2004) stated that the essence of CRM and HRM in construction companies is to build long-term relationships with customers.

## **Discussion**

### *Customer Focus*

The orientation of an organization is towards serving its clients' needs. Having a customer focus (CF) is usually a strong contributor to the overall success of a business and involves ensuring that all aspects of the company put its customers' satisfaction first. CF is also the most important aspect for any organization. Having a CF usually includes maintaining an effective customer relations and service program. CF refers to the process of improving the relationship between an organization and its customers. This provides an organization and its' public an opportunity to interact so as to improve business and create a good customer base. CF quite literally and quite obviously focuses on the customer (Gupta & Zeithaml, 2006).

### *Customer Relationship Management (CRM) in House-Building Companies*

According to Clutterbuck and David (1991), CRM represents a new way for the construction industry to manage getting work and tracking customers. Building companies looking to increase their success in bidding and winning more work should seriously review CRM as a strategic element of a company's overall Information Technology Strategy. The roots of CRM are entirely born out of relationship marketing (RM) and a number of contributors to the relationship

marketing literature emphasize the role of multiple stakeholders in the process (Payne & Frow, 2006). Companies are finding that the old way of obtaining business is not as effective in today's market. Construction companies have traditionally invested in software systems for estimating, job costing, and project management. The construction industry has not historically been a large adopter of CRM, but that is changing. Therefore, developing a CRM solution specifically for the construction and construction supply industries, even in the standard version, already covers the majority of the specific requirements (Issa et al., 2003).

#### *Human Resource Management (HRM) in House-Building Companies*

In recent years there has been a widespread realization that construction must improve its HRM performance before it can improve its overall efficiency, productivity, and cost effectiveness (Clarke & Herrmann, 2007). Regarding the intense competition within the modern construction business world, it is noteworthy that HRM is considered the most important competitive advantage of every construction company. Therefore, project managers must be aware of how to handle such as strategic factors and learn how to use them effectively. Thereby, a company can achieve a strong competitive strength. Accordingly, effectiveness of strategic HRM systems is bound to enhance knowledge, skills, capabilities, and motivations of employees to obtain organizational strategic advantages (Becker & Huselid, 2006).

#### *Training Courses (TC)*

Huang (2001) claimed that training is the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relates to specific useful competencies. Based on Guner and Wehnerl's (2003) research on Online Employee Training, there is a growing number of employers who are turning to online employee training for a hands-on, interactive way for employees to learn. Training presents a prime opportunity to expand the knowledge base of all employees, but many employers find these development opportunities expensive. As Hannum (2001) mentioned, web-based training has several advantages. Online training allows employees to learn at their own pace and at a time that is convenient for them. And, no matter which shift an employee works, training is always available anywhere there is an Internet connection, which makes these programs effective for training across multiple locations. Because all the trainees will use the same program, training

materials can be standardized. The materials are also easy to update. Online employee training also makes tracking results easier (Formoso et al., 2002).

### *Objectives of the Study*

The present study attempts to achieve the following objectives:

1. To evaluate the effect of (TC) on (CRM) in construction companies.
2. To investigate the mediating effect of (CRM) on (TC) and (CF) in construction companies.
3. To assess the effect of (TC) on (HRM) in construction companies.
4. To determine the mediating effect of (HRM) on (TC) and (CF) in construction companies.
5. To ascertain the effect of (CRM) on (CF) in construction companies.
6. To evaluate the effect of (HRM) on (CF) in construction companies.
7. To assess the effect of (TC) on (CF) in construction companies.

### *Hypothesis of the Study*

1. There is a significant relationship between (TC) and (CRM) in construction companies.
2. There is a significant relationship between (TC) and (HRM) in construction companies.
3. There is a significant relationship between (CRM) and (CF) in construction companies.
4. There is a significant relationship between (HRM) and (CF) in construction companies.
5. There is a significant relationship between (TC) and (CF) in construction companies.

### *Research Methodology*

In this research, quantitative analysis is used to analyze the data. This study analyzes data which includes descriptive statistics, goodness of measures, reliability analysis, validity analysis, hypothesis testing, and mediation effects testing. It investigates relationships between TC, HRM, CRM, and CF. The data collection resources (tools) are classified into two groups of primary and secondary sources or information. In the case of secondary resources, articles, books, research, studies, and the theses conducted in this field (collected from libraries and internet websites) have been used. Also, the primary information has been collected using the field research method (questionnaire).

A draft of the questionnaire is evaluated by ten academic professors in the areas of CRM, HRM, and the construction industry. These processes enable a researcher to develop a questionnaire with high content validity. According to our respondents, a group of experts, all

the ambiguities in the questionnaire were made clear and the items have been designed and reviewed. The structured questionnaire was developed according to a 5-point (Likert-type) scale ranging from 1 to 5, namely strongly disagree, disagree, neither disagree nor agree, agree and strongly agree. Because, the Likert scale makes information available about the respondents' degree of contribution, deeper implications of the perception to be surveyed can be made. Table 1 shows the reliability coefficient of the questionnaire. It shows that the Cronbach's (1951) alpha of the questionnaire is 0.8235 which means the reliability of the present research questionnaire is acceptable.

Table 1

*Reliability Statistics*

Cronbach's Alpha	N of Items
0.8235	36

The sampling technique in this research is stratified sampling, where, the researcher divides the population into separate groups, called strata. Then, a probability sample (often a simple random sample) is drawn from each group. The sample size of research can be determined according to Morgan's Table (Krejcie & Morgan, 1970). In this research the population size is N=800 and according to Morgan's Table the sample size should be N=260, but it was actually 266 (33.25%). The target population of this research consisted of managers and non-managerial staff, as well as professional members of the Real Estate and Housing Developers' Association.

*Analysis and Interpretation*

This portion of the paper discusses the objectives of the research, namely the effects of CRM and HRM in the construction company. In the data analysis portion, readers can see the collected data and summarized information that were studied, categorized, and tested using the descriptive and inferential statistical techniques. This was done with the intention to achieve the

research objectives, answer its questions/hypotheses, and its problems. The detailed process of how it works will be explained.

### *Mahalanobis Distance*

Mahalanobis distances provide a powerful method of measuring how similar certain sets of conditions are to an ideal set of conditions and can be very useful for identifying which regions in a landscape are the most similar to an “ideal” landscape. Moreover, Mahalanobis distances are based on both the mean and variance of the predictor variables, plus the covariance matrix of all the variables, and therefore take advantage of the covariance among variables. The region of constant Mahalanobis distance around the mean forms an ellipse in 2D space (i.e. when only 2 variables are measured), or an ellipsoid or hyperellipsoid when more variables are used (see Table 2).

Table 2

### *Residuals Statistics (a)*

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.0000	4.6667	4.4211	.16039	266
Std. Predicted Value	-2.625	1.531	.000	1.000	266
Standard Error of Predicted Value	.000	.000	.000	.000	266
Adjusted Predicted Value	.	.	.	.	0
Residual	.00000	.00000	.00000	.00000	266
Std. Residual	.000	.000	.000	.000	266
Stud. Residual	.	.	.	.	0
Deleted Residual	.	.	.	.	0
Stud. Deleted Residual	.	.	.	.	0
Mahal. Distance	23.095	25.504	24.906	1.043	266
Cook's Distance	.	.	.	.	0
Centered Leverage Value	.087	.096	.094	.004	266

a Dependent Variable: dv

The tests results show that the minimum for Mahalanobis distance was 23.095 and the maximum for was 25.504. It means that, our data value is between the minimum and maximum range.

### *Skewness and Kurtosis Test Results*

Skewness and Kurtosis can be used to test the normality of a given data set. Since the statistics are between (-2, 2), the distribution of the sample is normal.

The amount of Skewness for all variables respectively is 0.485, -0.332, -0.514, and -0.651. It shows these variables are normal and have a symmetric distribution and also the amounts of Kurtosis for all variables respectively are 0.141, 0.675, -0.793, and 0.332. It shows that the variables distribution is normal (see Table 3).

Table 3

*Descriptive Statistics*

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
IV (TC)	266	.485	.149	.141	.298
MED1 (CRM)	266	-.332	.149	.675	.298
MED2(HRM)	266	-.514	.149	-.793	.298
DV (CF)	266	-.651	.149	.332	.298
Valid N (listwise)	266				

*Multiple Linear Regression Analysis Test Results*

A body of statistical techniques in which the form of the relationship between a dependent variable and one or more independent variables is established so that the knowledge of the values of the independent variables enables the prediction of the value of the dependent variable or likelihood of the occurrence of an event if the dependent variable is categorical. Regression analysis is a method by which quantitative social science seeks to establish how things are caused. The objectives are both scientific description and prediction. Montgomery (2012) states that, if we know the form of the relationship between things we have measured and know how it is causal to something else, then we can predict the value of the caused thing (see Table 4, 5, 6).

Table 4

*The Linear Regression Analysis Test Results among all the Variables*

IV (TC)								DV	Model
Model Summary		ANOVA		Coefficients					
R <sup>2</sup>	R	sig	F	sig	t	Beta	B		
0.052	0.228	0.000	14.470	0.000	14.311	-	3.477	CRM	1
				0.04	3.804	0.228	0.207		
0.179	0.415	0.000	54.892	0.000	9.152	-	2.461	HRM	2
				0.000	7.409	0.415	0.446		
0.000	0.020	0.742	0.108	0.000	20.261	-	4.351	CF	3
				0.742	0.329	0.020	0.016		

The Beta coefficient and significant value (sig) of the variables imply that TC variables have statistical validity, and TC has a significant impact on CRM and HRM because the significance value of these variables are smaller than the significant level 0.05. But TC does not have a significant impact on CF, because sig is bigger than 0.05.



Table 5

*The Linear Regression Analysis Test Results among Variables between CRM and CF*

IV (CRM)								DV	Model
Model Summary		ANOVA		Coefficients					
R <sup>2</sup>	R	sig	F	sig	t	Beta	B		
.094	.307	.000	27.508	.000	25.153	-	5.584	CF	1
				.000	5.245	.307	.264		

The Beta coefficient and significant value (sig) of the variables imply that the CRM variables have statistical validity, and CRM has a significant impact on CF because the significant value of these variables are smaller than the significant level 0.05.

Table 6

*The Linear Regression Analysis Test Results between HRM and CF*

IV (HRM)								DV	Model
Model Summary		ANOVA		Coefficients					
R <sup>2</sup>	R	sig	F	sig	t	Beta	B		
.160	.399	.000	50.124	.000	17.124	-	3.129	CF	1
				.000	7.080	.399	.290		

The Beta coefficient and significant value (sig) of the variables imply that HRM variables have statistical validity, and HRM has a significant impact on CF because the significant value of these variables is smaller than the significant level 0.05.

This research study has successfully achieved objectives one to six and objective seven is rejected as stated on the analysis.

### *Conclusion*

The main purpose of this study was to identify the concept of a mediating effect of CRM and HRM on the relationship between TC and CF in construction companies. It has demonstrated that the integration of CRM and HRM with the construction industry offers considerable potential for enhancing construction collaboration and ensuring that each sector of the construction industry is provided with access to CRM and HRM specific data, information, and services, hence improving the construction project. However, realizing the concept of CRM and HRM in the construction industry is a great challenge because on top of the complexity of the construction processes and fragmented nature of construction organizations, the construction industry is still very conservative and not ready to adopt new technology. There are numerous potential benefits in providing a CRM and HRM support infrastructure for the construction and the construction industry, which needs to take advantage of the sophistication of the CRM and HRM to make the necessary investments to realize these.

This research is conducted in the scope and limitations mentioned in the literature review. As such, it cannot go deeper into the research aspects conducted. This study only identified a mediating effect of CRM and HRM on the relationship between TC and CF. However, there is an ample scope to conduct a future study by taking more samples with the inclusion of government building sectors. It is hoped that this research will pave the way for writers and those interested in conducting deeper research with more respondents who represent the whole population of the country. This will require ample financial resources and a longer study period. The writer recommends that continuous research be conducted on all the challenging factors in implementing CRM and HRM in construction companies. The writer is confident that this research is important to find methods to make future construction developers more aware of this issue. In conclusion, the author wishes that the information in this research will assist future researchers to embark on further research pertaining to the field of construction companies and use any of the suggestions contained herein as rough guidelines for the direction of the future research.

## REFEENCES

- Becker, B. E., & Huselid, M. A. (2006). Strategic human resources management: Where do we go from here? *Journal of Management*, 32, 898-925.
- Chen, I. J., & Popovich, K. (2003). Understanding customer relationship management (CRM): People, process and technology. *Business Process Management Journal*, 9, 672-688.
- Clarke, L., & Herrmann, G. (2007). Skill shortages, recruitment and retention in the house building sector. *Personnel Review*, 36, 509-527.
- Clutterbuck, D., Kernaghan, S., & Snow, D. (1991). *Going private: Privatisations around the world*. San Francisco: Mercury House.
- Courtenay, P. P. (2014). A geography of trade and development in Malaysia. *New Zealand Geographer*, 30(1), 89-90.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- Formoso, C. T., Tzortzopoulos, P., & Liedtke, R. (2002). A model for managing the product development process in house building. *Engineering Construction and Architectural Management*, 9, 419-432.
- Grant, R., & Yankson, P. (2003). Accra. *Cities*, 20, 65-74.
- Guner, N., & Wehner, T. C. (2003). Survey of US land-grant universities for training of plant breeding students. *Crop Science*, 43, 1938-1944.
- Hannum, W. (2001). Web-based training: advantages and limitations. *Web-based Training, New Jersey, Educational Technology Publications*, 13-20.
- Huang, T.-C. (2001). The relation of training practices and organizational performance in small and medium size enterprises. *Education+ Training*, 43, 437-444.
- Hutt, M., & Speh, T. (2004). *Business marketing management (8<sup>th</sup> ed.)*. Boston: Cengage Learning.
- Issa, R., Flood, I., & Caglasin, G. (2003). A survey of e-business implementation in the US construction industry. *Journal of Information Technology in Construction*, 8, 15-28.
- Kumar, V., Lemon, K. N., & Parasuraman, A. (2006). Managing customers for value an overview and research agenda. *Journal of Service Research*, 9, 87-94.
- Mikula, B. (2006). Organizacje oparte na wiedzy. *Zeszyty Naukowe/Akademia Ekonomiczna w Krakowie. Seria Specjalna, Monografie*.
- Payne, A., & Frow, P. (2006). Customer relationship management: From strategy to implementation. *Journal of Marketing Management*, 22, 135-168.
- Rogg, K. L., Schmidt, D. B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of Management*, 27, 431-449.
- Roy, R., & Cochrane, S. (1999). Development of a customer focused strategy in speculative house building. *Construction Management & Economics*, 17, 777-787.
- Wright, P. M., McMahan, G. C., & McWilliams, A. (1994). Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management*, 5, 301-326.