

Impact of Following ISO 9001:2008 on Firm's Performance : A Study on Influence of Internal Integration in Some Selected Readymade Garments Firms in Bangladesh.

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Abstract

The study sought to establish how the performance of the garments firms is influenced by following and continuing ISO 9001:2008 i.e., Quality Management System practice on proper internal integration. The purpose of the study is to highlight the factors of internal integration in garment industries that ensure ISO 9001:2008 continuation. The study covers 4 certified garments firms from both Dhaka and Chittagong. 106 respondents were asked for opinion. With the help of structured questionnaire the survey was carried out by using random sampling technique with the results of 88.33% responses. The variables are classified into two categories; dependent and independent variables. In this study, firm's performance like 'production goals', 'quality goals', 'human resource goals' and 'reputation' fall under dependent variable category. On the contrary, factors responsible for internal integration sub divided into 'top management commitment', 'HR involvement' and 'internal audit' fall under independent variable category. Relevant literature was also studied and SPSS 16.0 version has been used for reliability, descriptive, and regression analysis. The study shows positive relationship and the result clearly indicates that 45% of firm's performance can be influenced by practicing ISO 9001:2008.

Keywords: ISO 9001:2008, Quality, Integration, Performance.

Introduction

Quality is not a new concept in the history of mankind. Years, decades and centuries have been passed to see and pursue quality. Today in the midst of fierce competition, organization especially Readymade Garments of Bangladesh is trying to improve their quality and get certification from the ISO. International Organization for Standardization, the largest standard organization in the world. ISO is based in Geneva and is a group of approximately 100 of the world's industrial nations (Kerzner, H. 2009). ISO has developed over 19,000 international standards for different industries all over the world (International Standards for Business, Government and Society, 2012). The ISO 9000 series was introduced in 1986 and centered on quality management. In 1987 the International Organization for Standardization published its first quality management standards from which ISO 9001:2008 (Quality Management System) is known as a system of management for organizational improvement. The purposes of developing ISO 9001:2008 were to create unity and to clarify the process of setting up a formal way to manage quality. International Organization for Standardization grants a certification to the organization that fulfills the requirements of quality according to the approved criteria. As the idea of quality standard is to

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develop a systematic way to maintain quality, every readymade garments firm wants to get certification, so it can show its customer and competitor that it has a formal quality management system.

Significance of the study

The significance of the study lies in identifying the influence of internal cooperation for continuing Quality Management System and its impact on production, quality, human resource and reputation. Following effective Quality Management system has great impact on Readymade Garments Sector. This study's result helps in broadening the scope of practicing Quality Management System in this sector. The result of the study also aids other garments firms that are not practicing ISO 9001:2008 to make them believe that it is not only cost consuming program, but also beneficiary for improving their performance. *To stay competitive in this present scenario how can garments sectors maintain quality in their daily production by following ISO 9001:2008 application? How does it happen? To know the answer of the questions the present study has been taken for investigation.*

Literature Review

A literature review is the framework for providing a solid background to the subject matter based on the past research work. It is considered as the comprehensive study and interpretation that helps to address a specific topic (Aveyard, 2010).

Involvement of internal integration in continuing ISO 9001:2008

The motivators of implementing ISO 9000 certification are popularly classified into two criteria: Internal & External. For achieving organizational improvement, internal motivation is needed, and for improving market share, handling customer pressure, external motivation is needed (Buttle, 1997, Corbett et al, 2003 , Gotzamani and Tsiotras, 2002, Douglas et al., 2001). For managing these two motivator factors, company's internal involvement is mostly important. Because of this fierce competition, without certification readymade garments of Bangladesh could not achieve a significant number of contacts and relationship with overseas markets (Bhuiyan and Alam, 2005).

The Study analyses researches of Jamal, R. A. & Dr. Theuri. F., Mahzan. N & Hassan. N (2015), Prates. G. A & Caraschi. J.C (2014), for considering Top management commitment ,HR involvement and Internal Audit as drivers for continuing ISO 9001:2008 (QMS) that hopefully results in firms performance for the organization.

Concept of ISO 9001:2008 (Quality Management System) in RMG sector

Readymade garments sector is the most prominent sector in Bangladesh for earning foreign exchange. Nowadays the tough economic and competitive markets have made garments sector to turn their attention to the quality. To fulfill the criteria of customers and suppliers, RMG sector of Bangladesh is being pressurized to implement ISO 9001. According to Dr. Karim. A. (2013), there is a need to implement Quality management system for achieving higher performance,

product development and higher technological change, because quality management system tries to balance between quality and cost to optimize customer needs. Terziovski and Samson (1999) investigated in Australia and New Zealand on Quality Management principles and practices and organizational performance thus got mixed results, showing that typical manufacturing organization with Quality Managements Principles Practice is more likely to achieve better performance than without it.

Top Management Commitment

In any organization Top management's support is needed to formulate policy and strategy. Ahire et al. (1996) outlined that the top management is the driver of QMS implementation. It creates values, goals and systems to satisfy customer expectations and to improve an organization's performance. Top management should always consider that quality will receive a higher priority over cost by providing needed human and financial resources necessary to implement QMS (Jamal, A. R . & Dr. Theuri, F . 2015).

In a study, Deming (1986) said that, involvement of top management in quality movement ensures organizational competitiveness in the international market. Researchers of Quality, Juran and Crosby also mentioned top management commitment is one of the most important factors impacting the success potential of a QMS in an organization. Adebajo and Kehoe (1998) quoted Morgan and Murgatroyd (1994) who cited that top management commitment is crucial for successful QMS implementation and it is a first reason why QMS fail in any organization.

HR Involvement

According to previous researches it is concerned that, area of human resource is concerned with the participation in the implementation of the quality system process that is especially engaged with training and developing employees & managing policies and procedure. Bhuiyan & Alam (2005) insisted that resources like human and financial resources are certainly required for the implementation of ISO standards. On the other perspective, human resource are pivotal for executing documentation and internal Audit (Dr.Jamal, R. A. & DR. Theiri, F. 2015). Jasni & Hazman (2005) also figure out that involvement of employee in developing quality system and documentation creates commitment towards certification.

Internal Audit

Audit on Quality is the process of systematic examination of a quality system which is carried out by companies internal or external audit team (Mahzan. N . & Hassan. 2015). Internal Audit can ensure initiative in taking corrective action and identifying improvement in organization. Organization can assess its strength as well as areas of improvement and where the organization stands by introducing internal Audit in QMS (Champon 2005).

Practicing ISO 9001 and its effect on Firms performance

The main objective of the ISO 9001 standard is to ensure that, the firms who are successfully certified, must follow the quality management procedure. It is not only formalities, but the systematic documentation of ISO 9001 that helps the firm to meet the purpose (Yeung & Mok, 2008).

Production goals

THE MAIN GOAL OF THE READYMADE SECTOR IS TO ACHIEVE THE PRODUCTION GOALS. ISO 9001 IS MOSTLY RELATED WITH DOCUMENTATION WORK WHICH LATER FACILITATES IN AUTOMATIC CONTROL OVER THE PRODUCTION AND SHIPPING, AND IT ALSO AIDS IN MANAGING WASTE, MACHINE AND INEFFICIENCY IN LABOR DOWNTIME , THUS CAUSES IN INCREASED PRODUCTION (ROTHERY,1993).

Quality goals

According to S. Rajaram (2008), “ISO 9001 certification had lot of advantages like market competitiveness, consistency in quality, improved productivity, employee involvement & morale improvement and job satisfaction.”

Human Resource goals

Yang (2006) confirmed that the practices of human resource management have a positive impact and significant effect due to the quality system implementation, specifically the ISO 9001 certificate and, thus, add an improvement in employee performance and customer satisfaction.

Reputation

Readymade garments sector of Bangladesh is one of the largest garment exporters in foreign countries. ISO 9001 certification encourages in determining the customer's needs, defining the process of carrying the work and also provide the framework for continual improvement, and thus it increases the profitability of enhancing customer satisfaction and also involved other interested parties that later result in upholding the reputation.

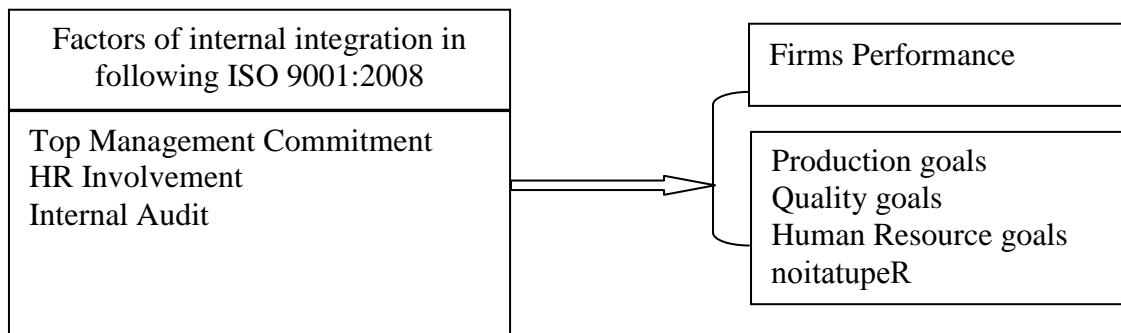
Objectives of the Study

The main objective of the study is to investigate the impact of ISO 9001:2008 on firm performance. It further includes objectives like:

1. To show the influence of internal integration in continuing ISO 9001:2008 on firm's production goals.
2. To determine the effect of internal integration in continuing ISO 9001:2008 on firm's quality goals.
3. To show the influence of internal integration in continuing ISO 9001:2008 on firm's human resource goals.
4. To show the influence of internal integration in continuing ISO 9001:2008 on firm's reputation.

Conceptual framework

The theoretical framework is the composition that supports a theory of the research. Here it represents the summary of variables used in the study.



Research Methodology

Nature of the study: This study is a conclusive research in nature. This research paper is aimed at examining the factors of internal integration in following ISO 9001:2008 (Quality Management System) and its impact on firm's performance.

Sampling plan: The study has been conducted on the selected garments firms of Bangladesh. Four renowned garments from both Dhaka & Chittagong have been selected for the study. The study covers 130 respondents who are selected randomly. Among 130 target respondents only 120 responses were received. But 14 unusual responses are eliminated, so 106 responses are taken into consideration that accounts for 88.33%.

Sources of data: Both the primary and secondary sources are used in this study. Self administered questionnaire survey is conducted as a primary source for collecting primary data. The questionnaire consisted of closed ended questionnaire for analysis. Besides, various books, related journals, reports, seminar papers, research works, internet, etc are secondary sources used for collecting secondary data.

Variables used: The study classified variables into two categories as dependent and independent. Here, Top management's commitment, HR involvement and Internal audit fall in the category of '**factors of internal integration**' as independent variable and **firms' performance** that includes Production goals, Quality goals, HR goals and Reputation as dependent variable.

Questionnaire design, tools and techniques used: Structured questionnaire with closed ended questions has been used for collecting primary data. For this purpose, the study used Five Point Likert Scale developed by Renesis Likert (1932). The measure is as follows: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1). The impact of ISO 9001:2008 on

firms performance is measured by developing 30 questionnaires that divided into three parts: Part A consists of 7 items mentioning name of the firms and the respondent's demographic profile. Part B & C consists of 23 items regarding the construction of the subject. The study uses Statistical Package for Social Science (SPSS-16.0) to analyze Descriptive statistics, Linear regression etc. Here validity and reliability of data has also been measured.

Reliability and Validity: The reliability of the questionnaire is verified by computing the Cronbach's Alpha. The Cronbach's Alpha suggests that a minimum alpha of 0.6 is sufficed for early stage of research. The Cronbach's Alpha estimated for all of the variables is .846 (Table 1). As the Cronbach's Alpha is much higher than 0.6, the questionnaire is therefore considered as it has adequate reliability.

Table 1: Reliability Statistics

Cronbach's Alpha	No of Items
.846	23

Theoretical framework: The study aimed to fit the regression model:

$Y = a + bX$, Where it assumes,

Y is the dependent variable: Firm's Performance (Production Goal, Quality Goal, HR goal, Reputation).

X is the independent variables (internal integration including Top Management's Commitment, HR Involvement, Internal Audit in following ISO 9001:2008, in the study).

Hypothesis of the study

The following table represents research hypothesis of the study.

Hypothesis : 1	There is a significant influence of following ISO 9001:2008 on Firms Performance.
Hypothesis : 2	There is a significant influence of internal integration in following ISO 9001:2008 on firm's production goals.
Hypothesis : 3	There is a significant influence of internal integration in following ISO 9001:2008 on firm's quality goals.
Hypothesis : 4	There is a significant influence of internal integration in following ISO 9001:2008 on firm's human resource goals.
Hypothesis : 5	There is a significant influence of internal integration in following ISO 9001:2008 on reputation.

Analysis of Findings

Demographic profile of the Respondents: Analyzing the collected data after questionnaire survey, following rates of respondents are found on the basis of their different demographic characteristics.

Table 2: Demographic Profile

Particulars	Category		Frequency	Percent[100]
Name of the Organization	Univogue Garments Company Ltd.	Chittagong	31	29.2
	Jay Jay Mills (BD) (Pvt) Ltd.		16	15.1
	South East Textiles (Pvt). Ltd.	Dhaka	28	26.4
	Alkanteks Apparel (Pvt) Ltd.		31	29.1
Gender	Male		82	77.4
	Female		24	22.6
Age	Below 30		18	17.0
	30-40		42	39.6
	41-50		37	34.9
	Above 50		9	8.5
Educational attainment	Graduate/Degree		20	18.9
	Post Graduate/Master		63	59.4
	Others		23	21.7
Working experience	Less than 1 year		20	18.9
	1-5 years		61	57.5
	6-12 years		25	23.6
Employment nature	Permanent		95	89.6
	Temporary		11	10.4
Job Level	Top level		29	27.4
	Mid level		77	72.6
	Total		106	100

Table 2 shows the demographic characteristics of the respondents. It indicates that the respondent covers all the 4 garments companies of both Chittagong and Dhaka. 82 (77.4%) of the sample size are male while 24 (22.6%) are female, which implies that the population of male respondents is higher. The profile of the respondents described that 42 respondents (39.6.2%) fall in 30-40 age group and 37 (34.9%) fall in 41-50 age group. Moreover, 63 (59.4%) are post graduated or achieve similar master degree; this increases the trust of the study's results and the respondents' capacity in understanding and answering the questions. Regarding the years of experience, 61 (57.5%) are working in between 1-5 years which clearly mention that respondents have adequate knowledge and experience in practicing ISO 9001:2008 systems. Here the study also reveals that 95 (89.6%) are permanent employee where 29 (27.4%) belongs to Top level and 77 (72.6%) from mid level who actually implement and continue the Quality Management Systems. So this is also a good indicator about understanding the effectiveness of Quality Management System within their respective organization.

Descriptive Statistics: The following table shows the mean and standard deviation of all independent variables as IV1 (Top management's commitment), IV2 (HR involvement) and IV3 (Internal Audit) and dependent variable, Performance includes Production goals, Quality goals, HR goals, Reputation.

Table 3: Descriptive Statistics

selbairaV	N	naeM	Std. deviation
IV1	106	4.3711	.51705
IV2	106	4.3160	.45683
IV3	106	4.3160	.45683
Production Goal	106	4.3349	.47795
Quality Goal	106	4.4245	.56256
HR Goal	106	4.4025	.54766
Reputation	106	4.4182	.54445

Table 3 shows that, the mean of above variables are moderate. The statistics also shows that the mean value of IV1 (Top management's commitment) (4.37), IV2 (HR involvement) is (4.31), IV3 (Internal audit) is (4.31) which later turns into improving their firm's performance. This table also shows that, these variables are normally distributed as to be a normal distribution the values of standard deviation must have a range between 0 and 1 (Cohen, 1996) and the data clearly shows that the values of standard deviation are less than 1.

The influence of ISO 9001:2008 on Firm's performance

This study used multiple linear regression analysis to test the entire hypothesis. The output and the interpretation are as follows:

Test of the Hypothesis: 1- Following ANOVA table (table 5) indicates the acceptance /rejection of the hypothesis about there is a significant influence of following ISO 9001:2008 on Firms Performance.

Table-4 : Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	6.805	3	2.268	27.904	.000 ^a
Residual	8.292	102	.081		
Total	15.097	105			

a. Predictors: (Constant), Top management's commitment, HR involvement, Internal Audit.

b. Dependent Variable: Performance.

The above table (table-4) shows that the p value (.000) is significant and lower than 1% level of significant ($p < .01$). So it indicates that the study can accept hypothesis. That means there is a significant influence of ISO 9001:2008 on firm's performance.

Strengths of association between independent and dependent variables

The value of the R Square is presented in the model summary table (table 5) on the basis of which the degree of influence of the dependent variables are determined.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671 ^a	.451	.435	.28512
Predictors: Top management's commitment, HR involvement Internal Audit.				

From the above table 5 it is found that the value of R is 0 .671 which indicates that the relationship between dependent variable and independent variables is strong enough to represent the model. It is also seen that the value of R Square is 0 .451 and Adjusted R² is 0 .435 , i.e. the dependent variable is 45% explained by the independent variables that are included in this model. This is satisfactory since a vast array of variables account for the level of firm's performance (Okpako, P. O. et al. 2014). In other words, the result may show at minimum level though it is a cross sectional data instead of time series data.

Nature of influence of the variables**Table-6: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.014	.356		5.659	.000
	Top management's commitment	.246	.058	.336	4.219	.000
	HR involvement	-.165	.069	-.192	-2.384	.019
	Internal Audit	.467	.064	.563	7.253	.000

a. Dependent Variable: performance

The above table (Table-6) shows the values of the coefficients to construct the model. Since the beta value of standardized coefficients is 0 for the model so it is required to use the unstandardized coefficients column to explain. The above table represents the constant value, B (Regression coefficient). Regression coefficient (B) reflects the relative impact of independent variables on the dependent variable. From the above table it is seen that the p value of independent variables Top management's commitment and internal audit are significant at .000 ($p < .01$) and HR involvement is significant at 0.019 ($p < .05$), that means they have a strong influence on the dependent variable.

So the regression lines will be:

Firm's Performance = 2.014 + .246 (Top management commitment) -.165 (HR involvement) + .467 (Internal Audit).

Hypothesis 2, 3, 4 and 5: The study indicates that internal integration has positive impact on production goals, quality goals, human resource goals and reputation. The summary of the result is given below:

Table 7: Model summary

LS	Variables	erauqS R	eulav F	Significant	Research Hypothesis (H1)
Hypothesis 2	Internal integration has significant influence on production goals	35%	17.937	.000	Accepted
Hypothesis 3	Internal integration has significant influence on quality goals	21%	8.866	.000	Accepted
Hypothesis 4	Internal integration has significant influence on Human resource goals	18%	7.308	.000	Accepted
Hypothesis 5	Internal integration has significant influence on reputation.	27%	12.247	.000	Accepted

To test above hypothesis, simple regression analysis has been performed on the factors responsible for internal integration as independent variable for following ISO9001:2008 and the Firm's Performance (Production goals, Quality goals, HR goals and Reputation) observed as dependent variable.

From the above (table-7) analysis ,the highest total variance is noted in production goals (35%) followed by Reputation of the firm (27%), Quality goals (21%) and human resource goals (18%).And for the hypothesis 2, 3, 4 and 5 (F is17.937, 8.866, 7.308 and 12.247) it is .000 level of significance. So it indicates that the study can accept the above research hypothesis. That means, there is a significant impact of involving internal integration (Top management commitment, HR involvement and Internal Audit) in following ISO 9001:2008 on firm's performance.

It is also noted that by involving internal parties in following Quality Management Systems, firms can improve 45% overall performance.

Conclusion

The main findings of the study are to establish the impact of ISO 9001:2008 that has a positive and significant effect on overall firms performance, moreover separately on production, quality, human resource and reputation. From the findings, it is also concluded that involvement of internal parties has great impact in following ISO 9001:2008 (Quality Management System).

The results of this study have several implications. The result of first hypothesis suggests that ISO 9001:2008 has impact on firm's performance.

The results of the second, third, fourth and fifth hypothesis bring out that internal integration for continuing quality management system has positive association in improving production, quality, human resource goals and reputation. Though the data was cross sectional instead of following time series form, it gives us minimum result. The study covers only four garments firms in Bangladesh; so it gives rise to a number of suggestions for further research.

Limitations of the Study

This study has considered only one hundred six respondents from the garments sector of Bangladesh. Further researches can be carried out to take into account large number of respondents all over the country. Moreover, here only three sub-independent variables have been reviewed, but there are other important variables like external impacts, Audit resources, Auditor competence etc. which can be considered. Further research can also be possible on the same research issue in different sectors.

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