

AN INVESTIGATION INTO THE MANAGEMENT OF CHANGE IN PRIVATE SECTOR HEALTHCARE ORGANISATIONS IN BANGLADESH: A MIXED METHOD INQUIRY BASED ON THE IMPLEMENTATION OF A NEW FRAMEWORK TO SUPPORT HEALTHCARE ORGANISATIONS

Abstract

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The purpose of this research paper is to investigate into the management of change in private sector healthcare organisations in Bangladesh and developing framework to support healthcare organisations. The study followed mixed methods research-convergent parallel design. The purposive sampling method were used to select the respondent which includes senior staffs. Semi-structured interviews were conducted with 10 individuals, asking about their views and perceptions about change management. Using Nvivo themes and subthemes were developed from the interviews. Clustered probability sampling methods used for the quantitative survey questionnaire and total 300 survey were conducted. Chi-square test and Spearman correlation analysis techniques were used to analyse data. The results demonstrate that effective communication influenced sustained healthcare culture as well as overcome resistance to change. It is also very necessary to have clear understanding and good perception about individual goals that are involved in significant change. The main point of this research is to advance the knowledge of the change management and change management within the private sector healthcare organisations in Bangladesh. Private sector healthcare organisations in Bangladesh are undergoing a significant change, mainly reform of the private sector policy. However, this research project is sought to understand and represent barrier, communication, resistance, and understanding of the change management by private sector healthcare organisations in Bangladesh.

Keywords: Change Management, Communication, Culture change, Resistance to change, Overcoming resistance.

JEL Classification: 031, M10, M13

INTRODUCTION

In a highly competitive and turbulent business world, the dynamism for changes in any organisations became indispensable for greater success and excellence. This result is that in most organisations whether public or private, have already known the phenomenon of change and often come to the realisation that if they cannot change, they will perish (Nohria and Beer, 2011). In a continuous changing business environment, change became the norm for most organisations in order to sustain their success and existence (Ackoff, 2016; Burnes 2016; Hailey and Balogun, 2012; Mintzberg, 2013). Therefore, change has become an everyday phenomenon in our life (Burns, 2016). It became one of the biggest challenges for the organisations (Cowan and Sahadath, 2016) and in today's management literature, clearly sends the message that organisations must change in order to survive (Oijako et al, 2018).

Despite all the emphasis put on change management by management experts, and change becoming a buzz word in all the top corporations, the brutal fact is that about two third or more than 70% of change initiatives fail to be implemented (Burnes, 2016; Beer and Nohria 2011, P. 5). Likewise, Macredie et al, (2012) stated that very vibrant organisations in the future, whether public or private, must embrace the concept of change on a continuous basis or be ready to become extinct like dinosaurs. Meanwhile, Beer and Nohria (2011) found that many organisations failed their change initiatives just because of a rush in the change process and thereby lost focus as well as becoming easily overwhelmed by the change initiatives in their organisations. Therefore, executing the change whether public or private organisations is not an easy work to be accomplished. Moreover, some private sector healthcare organisations malpractices are existent in the common norms of change management. As a result, the workplace has become more turbulent and unpredictable. In the basis of this problem, management needs to reconsider their change management approaches, directions and motivation for all employee's (Daft and Marcic, 2014).

In the context of Bangladesh, healthcare organisations change management became an ultimate necessity, because its management and delivery were so obsolete that it unbelievable. But managing change is not an easy task (Burns, 2016), it is expensive, complex and takes time to achieve success. The healthcare organisations need a perfect framework to make change successful or the result becomes merely a response to the change initiative or is diluted by any resistance to change. Most organisations respond wrongly to stakeholder needs and thereby lose ground and often cease to exist (Hope, 2012).

1. LITERATURE REVIEW

Change management is often viewed by experts as essential present-day organisational capabilities and core competencies for every employee (Newton, 2017). This study explores healthcare organisational conditions within this context and the capability that needs to be developed to facilitate the change management complexities during the change implementation. Though change management is a very challenging task (Hosking and Anderson, 2012) its scope and frequency result in a growing importance in an organization's ability to adapt. Hence, the ability to continuously and successfully adapt to new situation is regarded as the basis for the long-time competitiveness of any organisations (Hamel and Valikangas, 2018). The ability to manage change successfully has become an essential managerial skill and this skill becomes a success factor for most of organisations (Ashurst and Hodges, 2017).

1.1. Change management-A brief overview of the field

Change management, it is an integral part of our life (Szamosi and Duxbury, 2012). Some private sector healthcare organisations in Bangladesh face fierce competition from public sector healthcare organisations, as well as some other international healthcare organisations. In this particular paradigm, it became ultimately necessary for the private sector healthcare organisations of Bangladesh to manage change effectively in order to maintain its competitive advantage, both nationally and internationally. Burns (2016) identified that organisations that effectively manage the change have the greater advantage over their competitors. However, change management is very difficult to define (Stewart and Kringas, 2013). That is why the term, change management, has become a ubiquitous theme in the management literature (Stewart and Kringas, 2013). Nonetheless, despite the difficulties to define change management, Pettigrew et al (2011) point out that change management has become one of the great matters in social science.

However, scholars like Kotter (2016), Mead (2015) and Sheil (2011) figured out that factors like organisational culture, strategy and organisational structure control the destination and operations of some organisations. Kotter (2016) pointed out a very clear idea about this issue by maintaining that today's organisations are facing new kinds of challenges due to globalisation and thereby these are the influencing factors by which they are controlled. In detail, though globalisation is often thought to erode the influence of national institutions and the restriction of the borders, there is an argument that globalisation has resulted in the transformation of relationships between countries, different regions and among the organisations (Mead, 2005). On the other hand, Corsi (2013), Dierks (2017) and Richardson (2012) believe that globalisation has done more than just transforming the relationships among different countries, regions and organisations, rather it has opened up new horizons for social, economic and political boundaries for the

affected organisations. Accordingly, the proponents of globalisation, for instance Corsi (2013), Dierks (2017), Sheil (2011) and Richardson (2012) have made some arguments for the benefits of the process, even Kotter (2016) posited the idea of the benefits of globalisation. But globalisation has some drawbacks and creates various business hazards. Consequently, organisations have been fiercely forced to manage and maintain quality improvements in order to compete with similar organisations, not just only for their survival but also to prosper their business. Kotter (2016) also stated that globalisation has some powerful elements that have driven technological change, domestic market saturation and international economic integration worldwide. This view was supported by Burke and Trahan (2012) who provided an opinion that globalisation is accelerating the pace of commerce throughout the world today in virtually every industry. In essence Kotter (2016), Burke and Trahan (2012) stated that in present day organisations, in order to get a competitive advantage over their rival organisation, there has to be effective change and change management process in place.

1.2. Change communication

For years, many management scholars found a deep relationship between communication and change management (Kitchen and Daly, 2012; Proctor and Doukakis, 2013). According to Elving (2015) stated that communication activities definitely need to be distinguished from the information provision, which represents a merely short-sighted approach to change management. In fact, organisational change literature has the opportunity to offer a unique communication approach by exploiting the stories, narratives and discourse concepts within the organisational context (Johnsson and Heide, 2018). Often communication has been recognised as an important dimension to the organisational success and it is also thought as a key point to build the change readiness, minimising uncertainty, and a major factor for gaining commitment to change in the organisation (Armenakis et al, 2013; Klein, 2015). Caldwell (2013) stated that communication within the point of change management has been considered as a way to inform, involve and inspire collaborators in order for them to participate with all their effort in the change process.

Moreover, communication is often regarded as a key issue in a successful change implementation process because it is used as a tool for announcing, explaining and preparing people for change (Spike and Lesser, 2011). Lippitt (2017) stated that communication also increases the understanding of the change process and reduces confusion and change resistance. Grunig (2016) also stated that communication works as a catalyst to organisational excellence and effectiveness. Therefore, the change effort is often dependent on the ability of the organisation to change the individual behaviour of individual employees. If the organisational change is about how to change the individual tasks of employees, then communication conveying the information

about the change to employees is vital. Communication with the employees should be an important and integral part of the change effort and strategies (Robertson et al, 2013).

Therefore, communication that is aligned with the change can be more successful at reducing resistance to change. The connection between communication and organisational change has been attracting increasing interest from many scholars and practitioners during the last few decades (Johansson and Heide, 2008). Some of them have also emphasised on the important role of communication in the change management process (Ford and Ford, 2014; Kotter, 2016; Lewis and Seibold, 2016; Daly et al, 2013; Elving, 2015) and according to some of them, communication and organisational change are an inextricably related process (Lewis, 2001). It is also found many times in the change literature that the change is a communicative challenge (Allen et al, 2017) or another similar view has found that change implementation is primarily a communication problem (Lewis and Seibold, 2016). Bordia et al (2014) stated that communication is inherently a part of the change implementation activities.

1.3. Organisational culture and change

Healthcare organisations are often considered very difficult to change (Arrow, 2013). There are plenty of examples of how professional territorialism and organisational inertia creates disruptions in the healthcare organisation (Ouchi, 2017; Ahgren, 2017; Street and Blackford, 2011; Scott et al, 2013). To effectively meet this challenge, healthcare organisations need to realign their traditional practices of change management. However, new working models have been hindered by culture that is resisting the change process (Holmberg, 2017; Benders and Van Hoetegem, 2013). Therefore, culture has been developed in organisations in response to resistance management (Schein, 2013) and change represents a state of imbalance and is often considered as a threat (Appelbaum and Wohl, 2010). The development of culture in the healthcare setting is often driven by professionals who share similar values and goals (Edmondsson, 2013). Sinclair (2011) stated that even if no excellent model of managing organisational change existed, culture can influence an organisation in many ways and not just in negative ways. Martin (2012) articulated three different types of organisational culture supporting change. The first one is integration perspectives, which corresponds to the traditional view of culture promoting a strong and conservative consensus and maintaining social structures. The other types are differentiation and fragmentation perspectives which describe culture as a collection of subcultures of contradiction and ambiguity. Such diverse culture contributes to conflict and plays a major role in the change management process (Hatch, 2013).

Moreover, a diversity in the organisational culture has been registered in the healthcare organisation and it has proven to have various effects. It can on the one hand, be conservatism and demonstrates organisational inertia. On the other hand, it can improve communication, collaboration and coordination activities (Berlin and Carlstrom, 2018). The ability of cultural artefacts has been to improve safety and that has been already studied as their central role in promoting change (Xiao et al, 2011, 2014). Xiao et al (2011) stated that a supportive culture in the workplace functions as a powerful source that benefits the change process between different professionals.

1.4. Resistance to change

The theoretical context of the resistance to change has set an appropriate perspective of this study, because many healthcare organisations' employees think that change means loss to them, and loss is an emotional experience linked with paranoia, stress and anxiety (Carr, 2011). An employee's emotional negative reaction to change often can be compared to the experience of heartache. Additionally, exploring change resistance, Ford and Ford (2014) identified the importance of change agents, integrity, honesty, authenticity, the ability to communicate, resolve conflicts and realistically appraise limits when addressing the phenomena of change resistance. It is very important to acknowledge, address and use change agents to focus on building relationships with the recipients, rather than avoiding resistance. In order to develop this focus, it is necessary to engage participatory management, and this is the attribute of an empowered workforce (Kanter, 2013). However, resistance often is viewed as a positive force for organisational change (Ford and Ford, 2014). Robbins (2016) asserted that resistance can help to test the commitment of those initiating the change, if resistance to change is based on valid viewpoints, then the important truth could be heard, understood and taken into account by the change agent in order to make the change successful. Often resistance can help to weed out the bad idea that might not have been vetted by the change agent at the initial time, or any idea that might create an impulsive reaction by external events. Often resistance can be the outlet for the employee's reaction and energy during the times of intense pressure. Resistance to change only becomes negative when it hinders the employee's adaptation to change and organisational progress (Kanter, 2013).

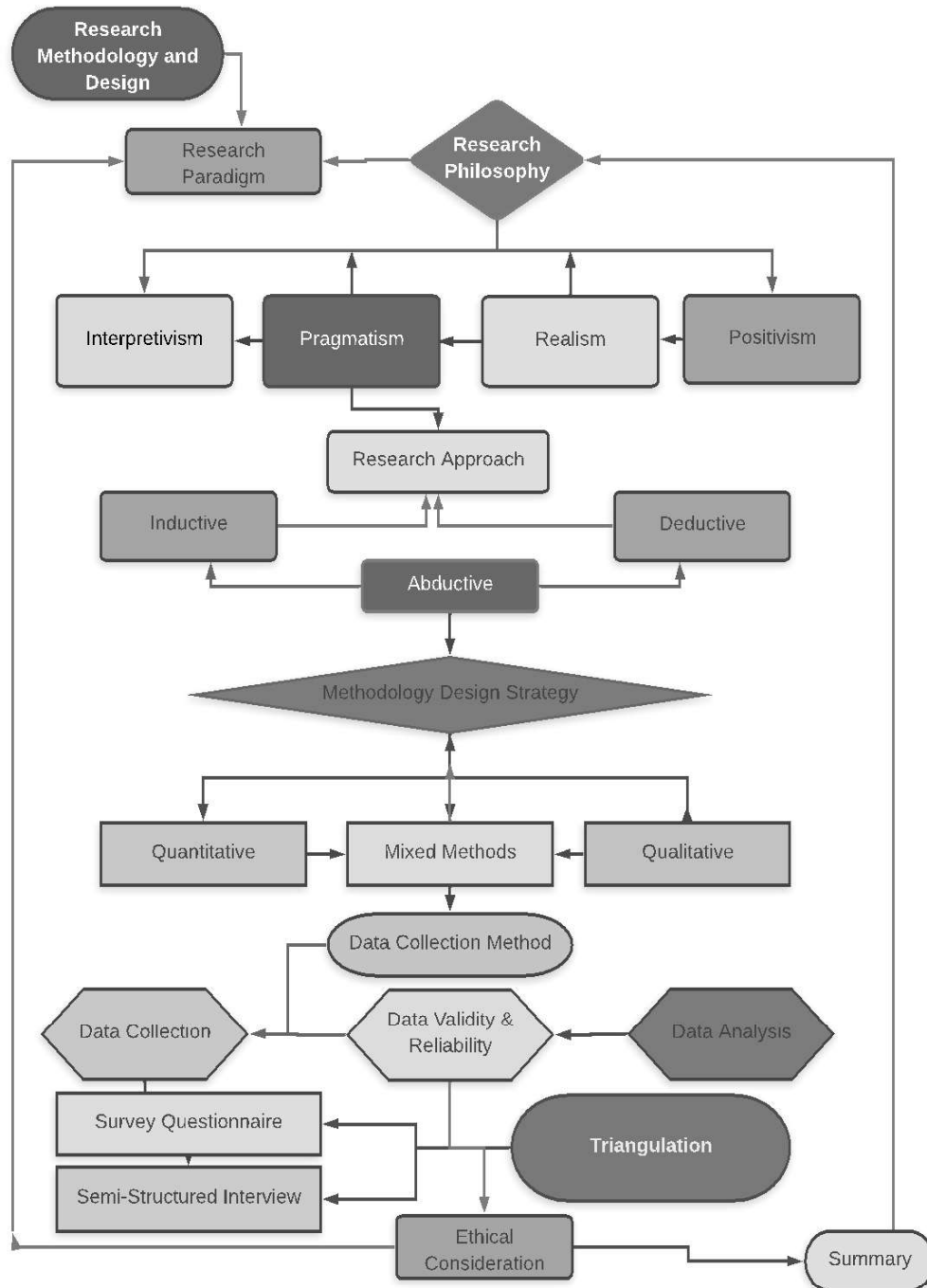
2. RESEARCH METHOD

In this section of the research study is concerned with the choice of relevant research methodology by which the research can be fully validated. Therefore, it was very necessary to have a clear and comprehensive rationalisation of how the study was to be done and why specific procedures and methods were selected. The research design has been chosen as a grounded theory, as already discussed have been chosen as the research design and hypotheses developed based on the research conceptual framework. With the aim of

selecting an appropriate research methodology, the research paradigm and philosophy have been discussed. Justification have been provided for the approach adopted. The researcher collected quantitative data through the survey questionnaires, and qualitative data through the semi-structured interviews. The collected data through the survey questionnaire was analysed by the computer software Statistical Package for the Social Sciences (SPSS). For the qualitative data ten top executives of the healthcare organisations had been invited and the interviews recorded. The recordings were transcribed through the computer software. Using the qualitative data analysis (QDA) software like Nvivo, themes and sub-themes were developed from the interviews.

This research study followed the mixed methodology and the sampling strategy also took the mixed method of sampling. The mixed method sampling involves the combination of both qualitative and quantitative techniques to answer the specific research questions (Teddlie and Yu, 2017). For the quantitative research, clustered probability sampling method has been carried out amongst the private sector healthcare organisations employees within the different position, age, gender and educational level of the healthcare organisations. With clustered probability sampling, the researcher divided the population into separate groups, then a simple random sample of clusters was selected from the population. The figure-2 shows the different approaches selected by the researcher sequentially and that is as follows:

Figure-1: Research methodology and design roadmap.



Sources: A graphical illustration by Researcher based on the Creswell, (2018).

3. FINDINGS AND ANALYSIS

Findings from both the qualitative and quantitative data are presented in this chapter. This research is based on the healthcare organisations in Bangladesh and quite a large amount of data has been collected. Consequently, the first quantitative data has been presented with the different graphs, pie charts, bar charts, bar diagrams and then the analysis of statistical tests has been presented.

3.1 Descriptive statistics analysis

The descriptive statistics used are here to analyse the basic data feature of this study and it is far different from inferential statistics. In this research descriptive statistics have been used to describe large data sets quickly and easily. Descriptive statistics used in this research to measure central tendency, such as mean, median and mode and the measure of dispersion such as standard deviation, standard error and variance.

Table-1: Descriptive statistics analysis:

Descriptive statistics									
	N	Range	Maximum	Minimum	Sum	Mean		Std. Deviation	Variance
						Statistics	Std. Error		
Age range	300	4	1	5	667	2.22	.064	1.103	1.218
Job title	300	5	1	6	1298	4.33	0.07	1.213	1.472
Work experience	300	3	1	4	594	1.98	.049	0.85	0.722
Education level	300	3	1	4	867	2.89	.041	0.712	0.506
Managerial experience	300	3	1	4	710	2.37	.061	1.063	1.129
Familiar with change management	300	2	1	3	306	1.02	0.01	0.182	0.033
Change and competitive advantage	300	2	1	3	321	1.07	.019	0.335	0.112
Cultural support	300	2	1	3	563	1.88	.028	0.485	0.236
Change implementation process	300	2	1	3	571	1.9	.021	0.367	0.134
Roles responsibilities	300	4	1	5	992	3.31	0.05	0.861	0.742
Training development	300	2	1	3	601	2	.014	0.238	0.057
Management respect	300	4	1	5	1095	3.65	.051	0.878	0.77
Management inspiration	300	4	1	5	974	3.25	0.05	0.873	0.762
Problems complaint	300	4	1	5	1020	3.42	.042	0.726	0.528
Effective communication	300	2	1	3	594	1.98	.015	0.258	0.066
Support available	300	4	1	5	1003	3.34	.045	0.771	0.594
Change communication	300	4	1	5	980.4	3.268	.056	0.9708	0.943
How change managed	300	4	1	5	666	2.22	.074	1.285	1.65
Good idea and appreciation	300	2	1	3	595	1.98	.015	0.264	0.07

Participation	300	4	1	5	974	3.25	.042	0.726	0.528
Resistance caused by	299	4	1	5	490	1.64	.057	0.985	0.97
Intensity resistance culture	300	2	1	3	392	1.31	0.03	0.517	0.267
Symptoms resistance	300	2	1	3	336	1.12	.025	0.439	0.193
Communication free flow and vibrant	300	4	1	5	472	1.57	.068	1.179	1.389
Resistant to change	300	4	1	5	489	1.63	.068	1.174	1.378
Valid n (listwise)	300								

Sources: SPSS output-Descriptive statistics of the study.

3.2 Reliability statistics

The reliability test used in this research study found that the reliability scale in the survey questionnaire rated very good. It shows a high consistency number .811 (Table-2) which means higher internal consistency across all the scales. Further, the reliability of the individual test was different than the overall scale. The individual scale varied from 0.811 to 0.813, which shows that survey questionnaire has high level of internal consistency.

Table-2: Cronbach's alpha reliability statistics.

Reliability statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.811	.813	21

Sources: SPSS output-Cronbach's alpha reliability statistics.

3.3 Factor analysis

Correlation coefficient fluctuate from variable to variable, much more in small sample than in large. Therefore, reliability of factor depends on sample size. Many 'rules of thumbs' exist for the ratio of cases to variables; a common one is to have at least 10-15 participants per variable. Test parameters tend to be stable regardless of the cases-to-variable ratio (Kass & Tinsley1979) which is why Comrey and Lee (1992) class 100 as a poor sample size, 300 as good sample size and 1000 as excellent. In this sense, this research has 300 sample sized and it is estimated that it has good sample size. The factor analysis of the variables is in the following tables:

Table-3: Factor analysis of the variables.

Factors	Items	Factor lead change	Explained variance	KMO	χ^2	df	P
Familiar with change management	15	0,875-0,526	69,815	0,925	1613,635	105	0,000
Change and competitive advantage	7	0,949-0,832	80,874	0,920	977,588	15	0,000
Change implementation process	8	0,677-0,803	71,559	0,706	202,199	4	0,000
Roles responsibilities during change	6	0,778-0,809	55,324	0,715	545,084	5	0,000
Cultural support	6	0,801-0,619	52,959	0,837	386,399	5	0,000
Management respect	9	0,775-0,766	75,897	0,848	854,906	21	0,000
Management inspiration & motivation	7	0,881-0,887	79,953	0,739	783,987	34	0,000
Problems complaint handle effectively	6	0,883-0,665	52,654	0,848	415,263	66	0,000
Support available during change	11	0,834-0,778	79,893	0,673	100,523	10	0,000
Change communication	14	0,863-0,750	75,053	0,848	112,109	20	0,000
Effective communication	12	0,788-0,588	76,053	0,648	187,908	6	0,000
Communication free flow and vibrant	9	0,802-0,825	67,350	0,598	515,368	30	0,000
Resistance to change	11	0,788-0,874	53,234	0,727	651,149	26	0,000
Reasons behind resistance	10	0,844-0,598	67,253	0,778	445,084	25	0,000
Symptoms resistant	14	0,809-0,891	67,893	0,884	55,342	15	0,000

Sources: SPSS output-factor analysis of the variable.

Table-4: Summary of the factor analysis result for the SPSS:

Familiar with change scale	Competitive	Implementation	Roles
Change management provide competitive advantage during change	0,822		
Workplace culture support organisational change management	0,789		
Change implementation process openly communicated	0,698		
Roles and responsibilities are clearly defined during change	0,597		
I take necessary training and development support during change		0,986	
I have been well informed during change.		0,887	
I have responsibility to process the change		0,778	
I am aware about the change happening in my workplace			0,615
I am not scared for the change			0,764
Change will enhance my employability			0,769
Cultural support scale	Respect	Inspiration	Problems
My manager respects me as an individual	0,857		
I have respect for all colleagues	0,785		
We have mutual respects for each other	0,855		
I never tolerate disrespect	0,987		
My manager inspires me for every good works I do		0,765	
Motivation is the key to change successful		0,786	
Management inspiration is the key to change success		0,885	
Every problem is effectively handled in my workplace.			0,773

Avoiding problems is not a good idea	0,875	
Effective handle problem increase performance	0,677	
My management support me for when necessary		0,886
Management listen all subordinates		0,876
Takes into consideration any opinions by colleagues		0,875
Change communication scale	Effective communication	Communications free flow
I am informed when necessary change taken place	0,817	
My workplace has satisfactory communication each other	0,877	
My workplace communication is comprehensive by all	0763	
Communication is the key to change management success	0,871	
Top management communicates effectively to all junior		0,766
Poor communication existent in my workplace		0,863
I can communicate with anyone in my workplace		0,971
Resistance to change scale	Reason behind resistance	Symptoms resistance
Resistance is common in my workplace	0,766	
Climate of mistrust creates resistance	0,881	
Resistance is the conflict of interest	0,863	
Resistance happen because of status que	0,879	
Anger and withdrawal are the symptoms of resistance		0,828
I will be less resistant if I am part of the decision-making process		0,833
Intensity of resistance depends on workplace culture		0,874
Resistance is inevitable during any change		0,877

Sources: SPSS output-factor analysis of the variable.

In order to determine the cultural support and change management dimensions, varimax rotation factor analysis was applied to the 15 variables in the questionnaire with the basic component method. As a result of the analysis, some questionnaires were excluded from the analysis as they reduced the validity of result of factor analysis. The suitability of the data for factor analysis was measured by Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test. The fact that KMO is 0.837 and 0.925 and that the Barlett Sphericity test (386,399 & 1613,635; $p < 0.000$) is significant shows that the data are suitable for factor analysis. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, $KMO=0.92$ ('marvellous' according to Kaiser & Rice, 1974) all KMO values for individual items were greater than 0.77, which is well above the acceptable limit of 0.5 (Kaiser and Rice, 1974). An initial analysis was run to obtain eigenvalues for each factor in the data. Four factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 50.32% of the variance. This research retained four factors because of the large sample size and the convergence of the scree plot and Kaiser's criterion on this value. The items that cluster on the same factor suggests that factor 1 represent familiarity with the change management, factor 2 cultural support, factor 3 change communication and factor 4 resistance to change.

3.4 Spearman correlations coefficient analysis

The result of the correlation coefficient table shows that there are some strong positive and negative relationships between the variables and some variables have no relationships at all. For example, one of the important variables is age range as it is used for demographics identity, it has very strong positive relationships with the two other variables, work experience and management experience. The work experience ($r=0.647$) and management experience ($r= 0.605$) both have positive moderate relationship with the age range. Where $p<.001$ it means the probability of getting a correlation coefficient at least as big in a sample of $N=300$ people if the null hypothesis were true there was no relationships between these variables if it were very low. In fact, all the significance values are below the standard criteria of $p<0.05$ and it means that statistically significant relationships exist. There are two more independent variables have been chosen for hypothesis testing and these are, understanding/familiarity with change management and competitive advantage. These two variables have positive relationships as well, as it is shown that understating/familiarity with the change management has a positive relationship with change and competitive advantage.

Table-5: Correlation coefficient between variables.

		Familiar with Change Management	Change and competitive advantage
Familiar with Change Management	Pearson Correlation		.362**
		<i>Sig. (2-tailed)</i>	
	N	300	300
Change and competitive advantage	Pearson Correlation	.362**	
		<i>Sig. (2-tailed)</i>	
	N	300	300

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

The Spearman correlation test statistics $r=0.362$, $N=300$, $P<.001$ indicate that better of understanding/familiarity of change management will provide competitive advantage during change. There is positive relationship between these two variables. Where $p<.001$ it means the probability of getting correlation coefficient at least big a sample of $N=300$ people if the null hypothesis were true there was no relationships between these variables were very low. In fact, all the significance values are below the standard criteria of $p<0.05$ it means a statistically significant relationship exists. Furthermore, this research study selected two more important independent variables, and these are cultural support and change

implementation process. The cultural support and change implementation process have positive relationships and often positive culture supports the organisational change management process in implementing change successfully.

Table-6: Correlation coefficient between variables.

		Cultural Support	Change Implementation Process
Cultural Support	Pearson Correlation	1	.497**
	<i>Sig. (2-tailed)</i>		.000
	N	300	300
Change Implementation Process	Pearson Correlation	.497**	1
	<i>Sig. (2-tailed)</i>	.000	
	N	300	300

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

The Spearman relationship test statistics $r=0.497$, $N=300$, $p<.001$ these results indicate that the relationships between the two variables is moderately positive. It means that where cultural support is available or flexible culture prevails, the change implementation process would be much easier, and less resistance would be faced. Where $p<.001$ it means the probability of getting correlation coefficient at least big a sample of $N=300$ people if the null hypothesis were true, there was no relationships between these variables were very low. In fact, all the significance values below the standard criteria of $p<0.05$ and it means a statistically significant relationship is in existent. One of the very important variables in this research is effective communication because communication is very crucial for the change management process.

According to Kotter (2009) poor communication is the biggest reason for change management failure. In this research survey, participants responded concerning effective communication. Another important independent variable is resistance to change. One hypothesis has been developed about the relationship between communication and resistance to change. Now presented below are the relationships between the variables. Effective communication and least resistance to change have very strong positive relationships. The Spearman relationship test statistic $r=0.855$, $N=300$, $P<.001$ that indicates that least resistance to change has very strong relationships with the effective communication. It means if the effective communication increases then the resistance to change would be decreased.

Table-7: Correlation coefficient between variables.

		Effective Communication	Least Resistant to Change
Effective Communication	Pearson Correlation		.855**
	<i>Sig. (2-tailed)</i>		.000
	N	300	300
Least Resistant to Change	Pearson Correlation	.855**	
	<i>Sig. (2-tailed)</i>	.000	
	N	300	300
** Correlation is significant at the 0.01 level (2-tailed).			

As the correlation coefficient value $r=0.855$ and is positive and $p<.001$ it means that the probability of getting a correlation coefficient at least as big in a sample of $N=300$ people, if the null hypothesis were true there was no relationship between these variables, was very low. In fact, all the significance values are below the standard criteria of $p<0.05$ and it means a statistically significant relationship exist. The variable change management process and resistance to change is positively related but this positive relationship is very weak. The variable change resistance result of $r=0.072$, $N=300$ and $p=0.212$ it indicated that there is a positive relationship between the two variables, but this relationship is weak.

Table-8: Correlation coefficient between variables.

		Change Implementation process	Change Resistance
Change Implementation process	Pearson Correlation		0.072
	<i>Sig. (2-tailed)</i>		
	N	300	300
Change Resistance	Pearson Correlation	0.072	
	<i>Sig. (2-tailed)</i>		
	N	300	300

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

As the correlation coefficient value $r=0.072$ and it is positive and $p=>0.212$ it means the probability of getting correlation coefficient at least as big in a sample of $N=300$ people if the null hypothesis were true there was a relationship between these variables, was very high. In fact, all the significance values up the standard criteria of $p>0.05$ and it means a statistically significant relationship was not exists. It means high level of resistance to change will negatively affect change management process is not true.

3.5 Statistical analysis chi-square test and crosstabulation:

The Chi-square test is a statistical hypothesis test it is written as X^2 where the sampling distributions of any test statistics is a Chi-square distribution where the null hypothesis is true. The Chi-square test is often used just on simple idea Pearson's Chi-square test.

Table-9: Chi-square test.

Chi-square test			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	61.484a	4	.000
Likelihood Ratio	17.833	4	.000
Linear-by-Linear Association	39.078	1	.000
N of Valid Cases	300		
a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .05.			

In analysing the above table output it is clear that one of the important assumptions of the Chi-square test has not been violated, that is the expected cell frequencies must not be the less than 5. The important thing in the chi-squared test is the value of Pearson chi-squared 61.484 with the 4 degrees of freedom, which is significant at the $p < .001$ level. So that it can be like, $X^2 = 61.484$, $df = 4$, $p = < .001$. The Chi-square test is usually used to determine whether the association in the crosstabulation is a significant one. In the above Chi-square table, the p value is less than $p < 0.05$. However, to be statistically significant the probability value to be 0.05 or smaller. In this case, we have found that the p value is less than 0.05. Therefore, it can be concluded that there is significant relationship between the two variables. Therefore, an examination of Chi-square test table will enable us to make sure whether the patterns developed in the crosstabulation table are significant or not in the following table, it can be noted that the Chi-square test is a non-directional hypothesis and that is indicated by the asymptotic significance (2 sided).

Table-10: Chi-square tests.

Chi-square test			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	128.348a	4	.000
Likelihood Ratio	91.335	4	.000
Linear-by-Linear Association	73.732	1	.000
N of Valid Cases	300		
a 3 cells (33.3%) have expected count less than 5. The minimum expected count is .44.			

In analysing the above table 6.13, it is clear that one of the important assumptions of the Chi-square test has not been violated. That is the expected cell frequencies should not be the less than 5. The important thing in the Chi-square test is the value of Pearson Chi-square 128.348 with the 4 degrees of freedom, which is significant at the $p < .001$ level. So that it can be like, $\chi^2 = 128.348$, $df = 4$, $p = < .001$. The Chi-square test usually is used to determine whether the association in the crosstabulation is a significant one. In the above Chi-square table, the p value is less than $p < 0.05$. However, to be statistically significant the probability value needs to be 0.05 or smaller. In this case we have found that the p value is smaller than 0.05. Therefore, it can be concluded that there is significant relationship between the two variables. Hence, the hypothesis that the better understanding of change management will provide competitive advantage has a statistically significance association. However, an examination of the Chi-square test table enables us to make sure whether the pattern developed in the crosstabulation table is significant or not. In the following Chi-square test table, it can be noted that the Chi-square test is a non-directional hypothesis and that is indicated by the asymptotic significance (2 sided).

Table-11: Chi-square test.

Chi-square test			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.041a	8	.000
Likelihood Ratio	19.234	8	0.014
Linear-by-Linear Association	0.834	1	0.361
N of Valid Cases	300		
a 9 cells (60.0%) have expected count less than 5. The minimum expected count is .14.			

The analysis the above table output shows that one of the important assumptions of the chi-squared test has not been violated, expected cell frequencies should not be the less than 5. The important thing in the Chi-square test is the value of Pearson Chi-square 29.04 with the 8 degrees of freedom, which is significant at the $p < .001$ level. So that it can be like, $\chi^2 = 29.04$, $df = 8$, $p = < .001$. The Chi-square test is usually used to determine whether the association in the crosstabulation is a significant one. In the above Chi-square table, the p value is less than $p < 0.05$. However, to be statistically significant, the probability value needs to be 0.05 or less. In this case we have found that the p value is less than 0.05. So that it can be concluded that there is significant relationship between the two variables. Hence, the hypothesis better understanding of change management will provide competitive advantage has a statistically significant association. Therefore, an examination of Chi-square test table will enable us to make sure whether the patterns developed in the crosstabulation table are significant or not. In the following chi-squared test table it can be

noted that the Chi-square test is a non-directional hypothesis and that is indicated by the asymptotic significance (2 sided).

Table-12: Chi-square test.

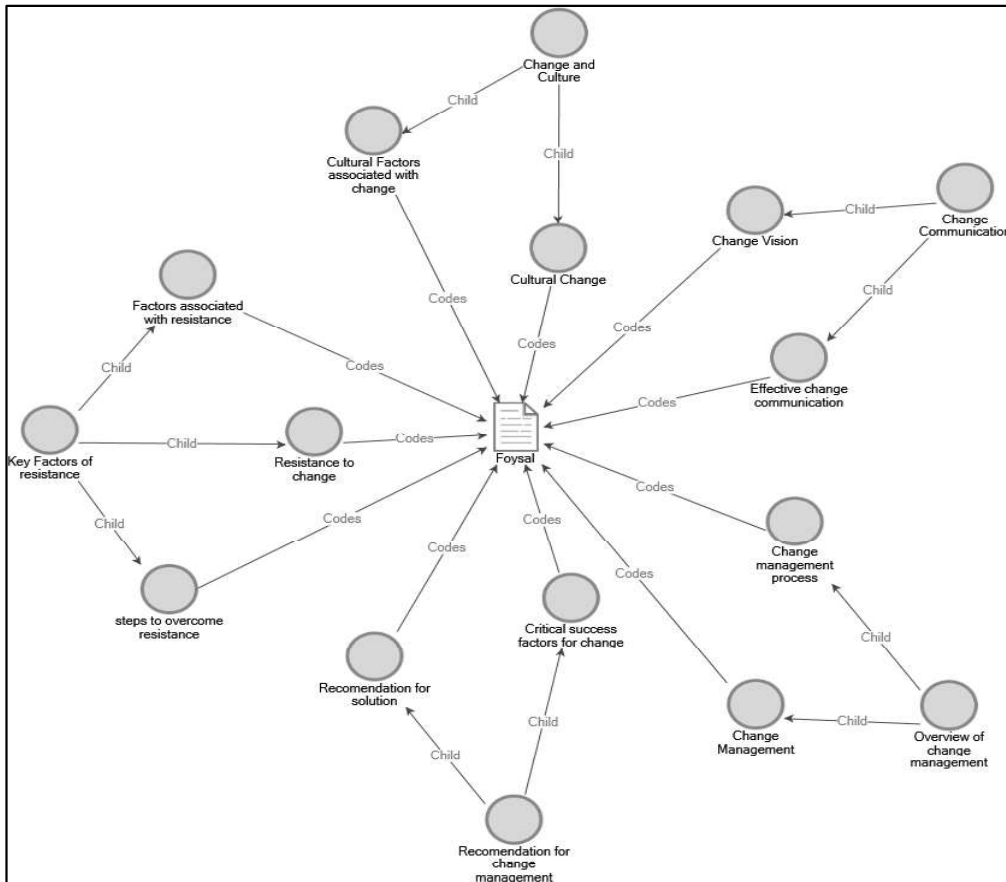
Chi-square test			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.226a	4	0.000
Likelihood Ratio	10.628	4	0.031
Linear-by-Linear Association	5.809	1	0.016
N of Valid Cases	300		
a 3 cells (33.3%) have expected count less than 5. The minimum expected count is .19.			

In analysing the output from the above table, it is clear that one of important assumption of the Chi-square test has not been violated. That is the expected cell frequencies must not be the less than 5. The important thing in the Chi-square test is the value of Pearson Chi-square of 21.226 with the 4 degrees of freedom, which is significant at the $p < .001$ level. So that it can be like, $X^2 = 21.226$, $df = 4$, $p = < .001$. The Chi-square test usually used to determine whether the association in the crosstabulation is a significant one. In the above Chi-square, table the p value is less than $p < 0.05$. However, to be statistically significant the probability value must be 0.05 or smaller. In this case we have found that the p value is smaller than 0.05. So that it can be concluded that there is significant relationship between the two variables. Hence, the hypothesis that a high level of resistance to change will affect negatively on the change implementation process has a statistically significance association.

3.6 Presenting the qualitative findings

The project map is used here to represent the graphical illustration of the different themes that have been used in this research. Especially representing the different connection among the all the nodes is based one participant. The following project map is a way of visually exploring the data used in this research and is based on the participant Foysal's interview. The different shapes of connection have been developed based on. For example, Foysal's provide opinion about change management and it has two sub-themes that are related with the themes change management and this project map shows it clearly.

Figure-2: Project map-graphical illustration of themes

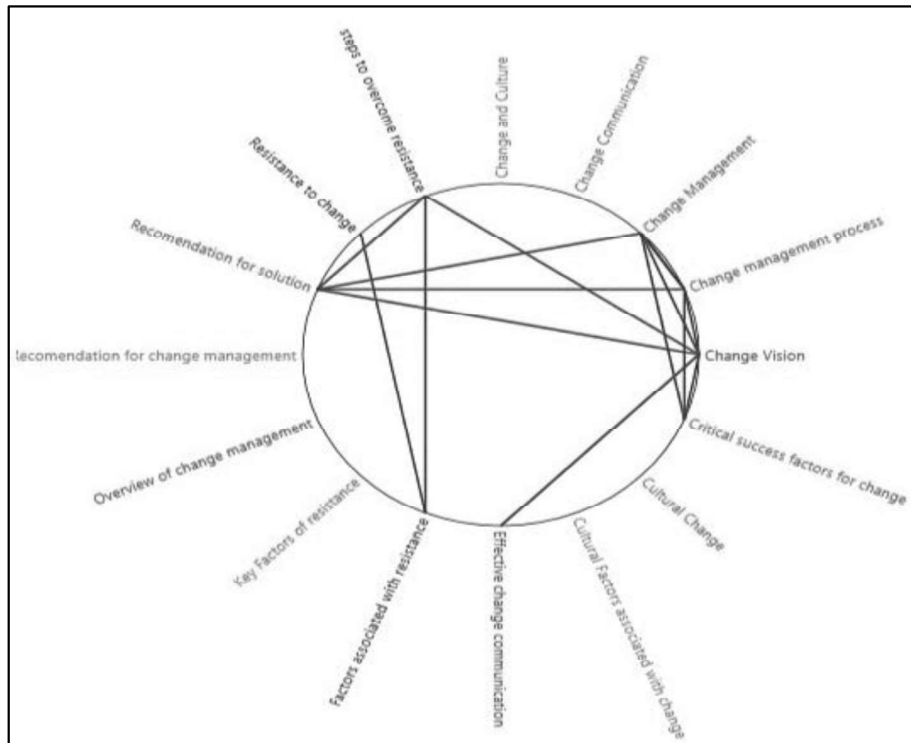


Sources: Nvivo output- project map-graphical illustration of themes

Another example is that the theme cultural change has been developed based on the participant interview. There are two more sub-themes under the theme cultural change. These themes are cultural factors associated with the change and change and culture, both have interrelationship.

The whole ring lattice graph shows the clear connection between the themes and how much strength are in the relationships. The following graph shows that the relationship between the words and different colour shows its strength. For example, change vision has a strong relationship with the effective change communication.

Figure-3: Whole ring lattice graph-inter-relationship within themes:



Sources: Nvivo output-whole ring lattice graph-inter-relationship within themes.

On the other hand, change vision has a weak relationship with the steps to overcome resistance. Change management and change management process has medium relationships with the theme ‘recommendation for solution’. There is a medium relationship among the three themes, and these are ‘change management’, change management process and ‘critical success factors for change’. Now in in order to understand the summary of all the graphical illustrations their summary table is presented in the next page:

Generally, to understand the most frequently used words, the word cloud query tools have been used. In this research the word cloud has been used here to show the most frequent word in different themes. The following word cloud shows the most frequent word in the themes. Form the above word cloud it is clear that the most frequent or occurring words in the different themes are communication, management and resistance.

Figure-4: Highest frequencies word in all nodes.



Sources: Nvivo word cloud most frequencies word.

Next infrequencies are organisation's culture, implementation, behaviour and so on. As has been shown to be common in change management without effective communication, any type of change program is doomed to fail before implementation. On the other hand, change resistance is another major word for change management and it is an integral part of change management as well. People often resist change just because they are scared of change, and most of the time it becomes so strong that change managers are unable to overcome the resistance.

CONCLUSION

The study is concerned about employees' understanding, perceptions and attitudes with regard to change management. Overall, employees understanding and perception about change is statistically significant and there is a positive relationship between change and competitive advantage. The relationship between employees' understanding and perception, and competitive advantage of change is also to be found statistically significant. This suggests that, when employees' understanding and perception about change is clear and positive, then they become more cooperative about organisational change. On the other hand, effective communication is vital for any change management process. It works as an artery for information and truth. Management scholars have found that effective communication has a deep relationship with the change management process. Overall, effective change communication has been found to be statistically

significant and with a positive relationship with the change management process. The relationship between effective communication and the change management process in the healthcare organisation has been found to be statistically significant. This suggests that effective change communication is the vital factor for the organisational change implementation process. Additionally, organisational culture is another important factor for successful organisational change. Most often organisational change means organisational culture change. Organisational culture is receiving significant attention in the healthcare organisations over the last few years. Often culture is called a system of informal rules that spells out how people are to behave most of the time. However, sustained organisational culture change has a positive relationship and is statistically significant with the change management. This suggests that the more positive and sustained organisational culture is the more successful the change management implementation process would be. From the result of the study, it is clear that culture in the healthcare organisations in Bangladesh is not supportive for change at all, as its culture is conventional, rigidly hierarchical and an obsolete structure. Often when such an environment exists, any new ideas coming from the junior employees are rarely listened to by the senior executives. Finally, it is also found that the resistance in the healthcare organisations is very strong and most often change limitations fail without a final stage. It is also found that some participants recommended factors overcoming resistance to change. Which highlighted mostly education, participation, facilitation, negotiation and coercion for overcoming resistance to change in the healthcare organisations in Bangladesh. Finally, there might have been some limitations like lacking evidences or hypothetical issues. During the interview, employees are often asked questions such as their thoughts about the change outcome. This type of question might lead to a lack of evidence and attribution. Since guessing often does not represent the real situation, the convenient time frame also matters for getting accurate data from the interviews. One might feel comfortable to undertake the survey during one's lunch time, where others might prefer a different time.

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