

# Change Management in IT Sector of Pakistan

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**Abstract:** One of the reasons for conducting research on change management in the IT sector is because ever since the COVID-19 pandemic, many software houses have adopted changes and are now using them as the new normal. The key objective for this research is to study the factors of politics, employee aspects, moral, retention, communication of change leading to an implementation of change and whether or not the implemented change because of the factors mentioned have a positive or successful impact on to be called whether the change management was made effective or not. A sample of 286 professionals from different IT companies and software houses were selected to achieve the purpose of this study and prove the facts of being successful or not. Smart PLS 3.0 software was used for statistical analysis. The results revealed that the independent variables (i.e. staff turnover, retention, communication of change, culture, politics and employee aspects on change implementation) have a mediating and positive influence on change implementation and that the moderating variable (information systems) have a positive influence on the dependent variable called (effective change management). All the hypotheses failed to be rejected. The results depict a mediating effect of change implementation on effective change management. This research will help the managers how change can be implemented and also made to retain their employees by communicating why the change was needed. The results will help the organizations to identify how they were implementing change in a different direction and discover the potential reasons to understand how change implemented by them might have failed.

**Keywords:** Communication of change, politics, retention, employee aspects, morale, culture, change implementation, information systems, effective change management.

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## Introduction and Overview

Organizational change goes arms linked with leadership and both are meaningless without the other (Roberts, 2018). The organizations of the IT industry must adapt to the new practices and new technology of the era in a timely manner rather than delaying it till the damage is done, and to be kept in mind that a simple mention of change tends to create nervousness amongst the employees of the company and soon as the change starts taking itself into shape, the employees are bound to feel uncertain and unsure, and these feelings of the employees must be acknowledged (Arshad & Ali, 2023; Gaborov et al., 2023). Given such uncertain realities, the leaders of the company are bound to make an approach which needs to be very clearly communicated to the employees so that the approach which, when implemented, turns to be in favor of the whole company (Aninkan, 2018).

This research is primarily focusing on the world after the pandemic, the world where companies were forced into. How one survived, how one closed their books of business and most astonishingly, how one emerged even faster in times of crisis. Change rises in unstable environment which then gives rise to an emerging change within an organization, most commonly this phase is stated as the reaction on how to deal with the unstable environment and in return benefits that emerge out are an acquired strategy which may also give rise to change (Hassan, 2018; Rouhani & Mehri, 2016). Supported by older research, it is quoted that how change is extremely important in the IT industry, the landscape of every single IT industry must focus on the (Regona et al., 2022), and evolve from the previous ones, the older technologies need to be replaced and the new, latest technologies must always be updated to the time of most important needs and another most essential thing is that the IT businesses should adapt to the newest change practices and methods in order to be able to compete with their competitors (Roberts, 2018). In order to be able to lead change successfully has suggested two steps which need to be followed by any management when implementing the change: Firstly, to analyze factors as per the situation of the company and determine the answers to reluctant questions like 'how much resistance can we face and how do we deal with it' and also with questions like 'who will be having the exact and accurate knowledge of the change that we need to implement.' Secondly, the management must determine the speed and duration of the change, will it take time? If yes, will it affect my employees and will they be able to support the company? In this chapter of our research, we will be highlighting the IT industry which is one very successful sector of Pakistan and has risen up to \$5.138 billion and also generates about \$3 billion revenue according to PSEB for the year 2017 (PSEB, 2017). Further ahead the scope of the study, problem statement and the objectives of this study on which all primary research is based will be discussed in detail.

#### **Problem Statement:**

Our problem statement revolves around the IT companies of Pakistan. Due to the existing culture of companies, traditional politics and the existing information systems of the IT companies, change implementation has become a challenge to achieve effective change management.

#### **Objective of the Study:**

This study will be evaluating the effects of Politics, Culture, Reward & Recognition, Employee Aspects, Staff turnover, Change implementation (as a mediator), communication of Change, Retention, Morale, Leadership, Training & development, and Information System (as a moderator) on Effective Change management.

### **Literature Review**

When deciding to implement change, most organizations had never really even considered this idea and were somewhat happy with the way they were performing but the pandemic that has now become the new normal for all of humanity, this meant that every company now had to change their priorities towards change and hence it can be said the global pandemic provides opportunity to the companies to move start change management process (Hoek, 2020). Change management is a key skill which has been required not just in the modern fast evolving era but even back when the first discovery was merely a telephone. Technological change has played a very vital role in enhancing employee performance and most importantly,

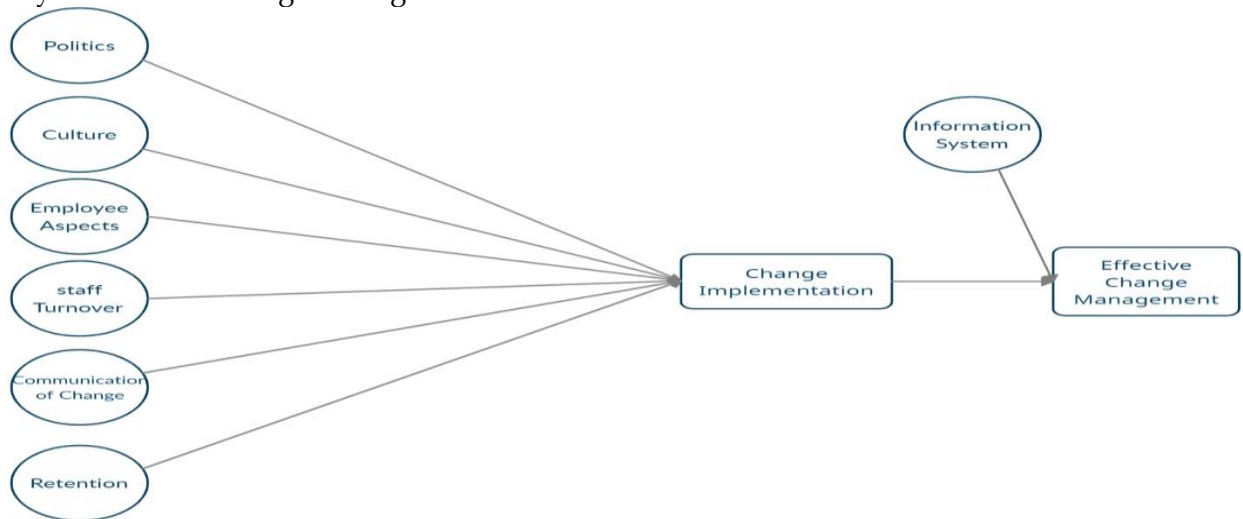
in making lengthy tasks easy to do. A management decision to implement change shows the employees how the company does not wish to stay stagnant and focuses on building culture and also on the working environment of the employees. It should also be kept in mind that change does not merely come from fancy top notch strategic strategies that are adapted from the bigger organizations but rather it is also a very vital to know that leadership is a very important fact of bringing the change to the organization itself (Sinaga et al., 2018). Change does not come in entirely in just one phase and hence different levels of change do exist which means quite clearly that different levels of leadership are required at each stage to successfully apply the desired change at company (*Formation of Strategic Change*, 2019).

### **Theoretical Background**

The theory that has been used in our research is Kurt Lewin's 3-step theory. This theory came into being to merely evaluate two key areas of any organization thriving to change for the better. Firstly, what the existing change process is in the organizational environment currently and secondly, how one can challenge the status quo in order to realize effective changes. Our study majorly relates to this theory as our prime focus is to understand how an organization can communicate change, start implementing it and then make the new change, constant. The key variable which this theory focuses on is "Leadership." According to the article Ali et al., (2018) a far sighted, experienced, mature and consistent leader with the mentioned qualities is the kind of leader who can bring the idea of change and make the employees aware and prepare for how necessary that change is, automatically creating a mindset towards the new goals. There are other theories used for change management as well such as Moss Kanter's Ten Commandments, Pettigrew's and Whipps five factors of change model and Kotter's Eight Step Model. This research however, is purely based on the Kurt model of change (Hassan, 2018; Jai & Jacoub, 2023).

### **Conceptual Framework**

The literature of the research above has given Politics, Culture, Reward & Recognition, Employee Aspects, (Fernet et al., 2017), Communication of Change, Retention, Morale, Leadership, Training & Development are independent variables, while Change Implementation is mediating variable, and Information Systems is moderating variable. Dependent Variable of the study is Effective Change Management.



*Figure No. 1: Conceptual Framework*

### *Culture and ECM*

A very recent article of a school principal implanting change, showed that regardless of the changing situation, he did not force change and rather introduced it to the students step by step, bit by bit and created a mindset amongst them (Hasibuan, 2021). It is at these times when the organizational culture becomes a risky topic to discuss and creates a slight murmur amongst employees (Kiosi et al., 2020). To be able to nurture this mentality amongst the employees of the company, it is important to focus on giving respect and treating with empathy, working on ways to create employee commitment to a whole new level (Karyotakis & Moustakis, 2016).

### *Retention and ECM:*

Retaining employees at the time of implementing change is the biggest challenge to retain employees. Murray writes in his research a very common concept but unfortunately, not valued by most, the secret behind this dilemma. It is the duty of the managers and the leaders to create a healthy relationship with his team, have mutual understanding and communicate daily with them (Murray, 2020). Giving the employee and the team proper guidance gives them a sense of security and comfort that their managers have faith in them. In times where employees are uncertain about their jobs and their future in the company, it becomes a question mark at the risk of going up, meaning, losing employees. The risks that the top management can face in the phase of changes is obviously lower revenues but also the retention of its employees. So, to be able to retain the employees of the company, a strategic vision, the processes of organization, all contemplate the success of enabling the company to face the adversity and reality of the external factors and also keep the employees at their side as a support to go through the phase of change itself. The company then moves in the right direction of growth, has a positive culture and is always ready to face challenges (Basco et al., 2020; Liu et al., 2014; Sauermann, 2018).

### *Staff Turnover and ECM*

By having a new vision, goal and strategies, the company is bound to remain successful and sustainable for its very own existence and the employees. As change is a constant outcome for any new input of decision making and various new strategies, it is largely focused on how the company can convince itself first, as to why the change is needed and then head over to communicate to the employees the reason for change and also share with them the long run effects of the change that can produce positive results for all (Fadzil et al., 2019; Sinaga et al., 2018). One thing that will always remain as a factor amongst the employees during change is the level of trust they have from the company and the leader of the company. Because however successful the change strategy may be, it needs to have it done from a leader who knows how to lead and who is capable of carrying his employees through that transition process and only a true, successful and capable leader would be able to help his organization pass through the changing times of the company if he's skilled enough and experienced much as well (Ahmed, 2021). To be able to gain the trust of the employees and help them guide through change, it is very important to be transparent with them so that they can understand as to why the change is happening in the first place. It is an easy way out as to start firing employees and show the front how the revenue numbers are going up but it is a challenge for those companies, and this challenge is considered as a healthy challenge, for those who strive to success along with all of their employees and reach the desired change without laying off too many people. Unless of course, the employees simply have baggage that is too heavy for the company to carry, the first

priority should always be to utilize the current talent and numbers of employees (Frye et al., 2020; Qureshi et al., 2022; Rafiq et al., 2019).

### ***Communication of Change and ECM***

Bringing up a change in organization depends how the employees of that organization are responding to the change. And for any organization to be successful with change, the attitude of employees is much more focused. In response to change, emotion, thought and behavior of employees must be focused and measured (Roberts, 2018). Well now when all the organizations around the world are feeling distressed because of the pandemic, employees are always alert on even very minor details which causes a rumor-mongering culture in the company (Lucas & Goh, 2009). It is required by managers to educate the employees, the importance of change, and what will happen if this change is not implemented. This will eventually lead everyone down the slope, keeping these qualities in mind, only then your employees will be able to trust you fully. Keeping in mind the exceeding rise in the pace of change, we need not to lose sight of the one factor which is very essential for every manager, leader and top management to follow and implement, which is, communication of change Now to implement successful ECM, the company needs to focus on communication, of course, but also on a very well defined communication strategy (Attridge, 2009; Katsaros et al., 2014). A communication strategy should be well thought, consistent and have a compelling story attached to it which makes it worth understanding as to why the change is needed (Tang, 2019).

### ***Employee Aspects and ECM***

It is very critical to understand a word as big as 'change' has a lot of sensitivity connected to its employees and stepping out of comfort zones is never an easy challenge. Employee behavior when it comes to implementing change needs to be studied very carefully and dealt with professionally and employee aspects do have a very strong effect on ECM (NJERI, 2010; Shahrabi, 2012). With the situation of the COVID-19 pandemic, companies must now focus on rethinking and reforming their workplaces entirely. It is a confusing stage as to whether or not the employees will return to office but it does not mean that the company should not prepare themselves for this (de Lucas Ancillo et al., 2020; Meshko & Savinova, 2020). The workplaces should be well thought regarding redesigning keeping in mind all the COVID-19 precautions such as health and safety, social distancing and also focusing on less face area with other employees so that when the employee returns back to the office, the employees aspects regarding returning back will be to a clean back-to-work kind of vibe and would love it if their office gets redesigned as per the need of the moment (de Lucas Ancillo et al., 2020). To have a sustainable development process in the company, it is important to take into consideration the employee side of the story, what behavioral patterns exist and hence need to understand what can keep the company's slope moving higher towards continuous development (Ahmed, 2021; Drela, 2020).

### ***Politics and ECM***

Politics when going to be discussed in general gives off a somewhat negative vibe but one would be astonished to know the politics play a very important role in a company (Ahmed, 2018; Yaseen, 2020), as they provide a nexus to think on, determining and being able to recognize the company's previous contributions to also aiding and helping to understand the approach that can be beneficial for all employees and the company itself in the future (Hochwarter et al., 2020). The word politics in alignment with ECM seems to give off a down-

sloping idea but just as interesting as this may sound, politics does also play a positive role in the organization. The impact of politics can be overwhelming as it can directly affect the mental well-being of an employee and the decisions happening in the organization as a whole (Ahmad et al., 2015). The leaders of an organization can help shape the culture and overcome the negative politics into a positive politics culture and the most crucial way to do this is to have a two-way communication. Meaning employees have an open communication with management and the management gradually declines the negative culture but brings in positivity and a just system for everyone. A leader is able to define that a positive culture has a positive mindset and the most dominating trait in this culture is that of trust itself (Nadeem & Sully De Luque, 2020; Soares, 2018). It is important for the leaders of every organization to first understand the prevailing environment of the office and also be aware of the fact that a strong and right leader cannot entirely control the whole office culture and environment but be a positive influence to this culture by being an active participant of the environment. A study on organizational politics shows that there are many employees who face organizational politics as a barrier in being able to give their best performance at work (Gbadamosi & Chinaka, 2011). ECM with negative politics will only give rise to uncertainty and factors like lack of communication and lack of trust which will then give the employees more rigor on their mental health, a leader should eradicate the improper use of power/justice and lead his organization towards the path of a smooth transition to change and be able to implement ECM (Alvi, 2017; Labrague & de los Santos, 2021).

#### *Change Implementation and ECM*

The process for ECM is considered to be completely weak if it does not cater to the fact that employees and stakeholders give the organization the level of support to implement the change. The top management then of course plays the most vital role in bringing effective change by how they are using the strategies and policies to implement the change, and therefore there are certain studies that show that there do exist certain organizations which do not put in the right of commitment which then leads to become a hindrance in change implementation (Sansa, 2020). For ECM, modern organizations have pretty much proven the importance of how a successful change implementation strategy is what leads to effective change management in an organization. Simply implementing a basic strategy used by large organizations and then expecting 100% results is never going to be successful. It is important to know firstly as to why the change is required in the first place and what is the motive for implementing this change as research has stated that it is vital to understand the motive for change just as much as it is important to implement the change (Hassan, 2018). It can be said that turbulent environment of the business, technology influence, changing and growing demands of the customers, it is at these crucial times where organizations embark their ways to making successful change management strategies which if not effective, or not studied properly as per the need of the organization, is going to be viewed as an adverse and challenging task and with this it can be stated that strategic change management practices are considered to be the drivers of change implementation in organizations hence need to be focused on with entire commitment of the top management (Murugi & Ongoto, 2018). It is also studied in a previous research regarding change management that the employees who are closer at heart with their company i.e., more committed and those who have more sense of ownership of the work they do in their daily office routines are bound to bring in change in a lot more efficient and successful manner as compared to other employees who are not entirely dedicated and

committed to their current company and those who do not take full ownership of their tasks and responsibilities (Terziev et al., 2020).

### ***Information Systems and ECM***

The 21<sup>st</sup> century which is our modern-day world has shown great inclination towards the use of information systems. It has become quite a challenge on how to handle change and even also to manage the entire process of change and that is where these information systems jump into action and claim to be the vital source of change in a constantly evolving and challenging world who is always at a risk of being defeated by the competitors of the organization and therefore ECM has received much attention in the past recent year (Haider, 2014; Terziev et al., 2020). Given that the current situation, that is, the global pandemic is not going away any time soon, it is now important and has become the need of the hour to be fully aware of technology and the technological practices so that the management of the company is not too much relied on the information of the employees and has its own source of information in hand. It is in today's times that the dependence on information systems is much too high and it is now more than ever that the organizations are planning to design internal controls to have better systems, ensure the compliance standards and monitor its growth while also ensuring.

To have success in managing change in an organized control way and without having to fail in implementing the change, there should a detailed plan on communication which should include who, what why, when, how and that what will be the end results of the change, and along with this, a planned information strategy as these key features are the highlights in going for a planned. It is through communication that leaders are able to communicate the direction of the change and its processes (Roberts, 2018). As the size of the organizations are growing, there is a fast growing culture, employees are now much more inclined towards getting the work done in a matter of a few seconds as compared to old days where tasks required to be done in a day or two, so now for all the companies around the world, having information systems is not a want but more importantly, a need for the company as things are much more complex and require speedy results and for that the information systems are made on completely new and high tech systems for better and faster results (Ahmed et al., 2017).

### **Hypotheses**

On the basis of literature reviews, following hypotheses have been formed:

**Hypotheses 1**= There are mediating effects of Change Implementation between:

- a) Politics and ECM
- b) Culture & ECM
- c) Employee Aspects & ECM.
- d) Staff turnover & ECM.
- e) Communication of Change & ECM
- f) Retention & ECM

**Hypotheses 2** = There is a mediating effect of Change Implementation on ECM.

**Hypotheses 3** = There is a moderating effect of the Information System on ECM.

### **Research Methodology**

#### **Sample Selection and Size**

The sample collected in this research was targeted at the IT industry to employees from executive level to the employees of manager level so as to see which level of employees is most

effectively communicated for change and which size of sample requires effective change management (Arshad & Ali, 2023; Terziev et al., 2020). The sample selection is done with sample size being 250 minimum (Hair et al., 2010; Kline, 2011). In this case, our research consists of a sample size of 286 respondents.

## Results

### Descriptive Analysis

*Table 1: Descriptive Statistics*

Construct	Mean	Std. Dev.	Skewness	Kurtosis
Change Implementation (CI)	3.594	0.806	0.420	-0.696
Communication of Change (CC)	3.507	0.771	0.092	-0.372
Staff Turnover (ST)	3.647	0.806	0.283	-0.751
Morale (MO)	3.647	0.752	0.336	-0.649
Retention (RE)	3.441	0.880	-0.269	0.081
Employee Aspects (EA)	3.748	0.833	0.171	-0.982
Training & Development (TD)	3.846	1.075	0.458	-1.072
Leadership (LD)	3.776	0.917	0.101	-1.223
Rewards & Recognition (RR)	3.780	0.912	0.031	-1.131
Culture (CU)	3.773	0.907	0.010	-1.071
Politics (PO)	sss	0.946	0.100	-1.378
Information System (IS)	3.773	0.887	0.037	-1.044
Effective Change Management (EC)	3.657	0.863	0.230	-0.904

As per typical practices, it is said that the regression analysis test cannot be run on the data if the data is not normally distributed. It can be noted here that the internal consistency of the items are normally distributed and are also checked and verified by the Cronbach Alpha which is ensuring that our data is reliable given that the value of the alpha is up to and greater than 0.7. Skewness of all the above constructs is within the range of  $-1 < S < +1$ , and the range of Kurtosis for the above variables lie between the range of  $-3 < K < +3$ , which suggests that the data follows normal distribution criteria. There is also another research which states that if the data is falling in the range of -1 and +1 of Skewness and kurtosis that range of data is also said to be considered as normal data (Hair et al., 2010; Kline, 2011).

### Reliability Test

Internal consistency of data can be measured through a Reliability test which helps in identifying the reliability of items, whether or not the items are reliable to test the construct (Ansari, 2020). We have run the reliability test on the responses we got from our sample, and the results are shown in the following table 02. Although the variables that have been taken in this research are merely adopted from an existing and already conducted research which had proven that all the variables are reliable and acceptable, it is still a requirement to conduct the test again due to the varying nature of the research study, the culture of the study and the respondents possessing a different level of knowledge and understanding on the research (Garson, 2016; Hair et al., 2017). Therefore, the reliability tests had to be run again on the variables and the results of the reliability are mentioned below.

*Table 2: Test for Reliability*

Construct	Cronbach's alpha	No. of Item	Mean	SD
Change Implementation (CI)	0.824	5	18.245	4.032
Communication of Change (CC)	0.572	3	10.385	2.180
Staff Turnover (ST)	0.817	6	21.370	4.483
Morale (MO)	0.830	7	25.518	5.033

Construct	Cronbach's alpha	No. of Item	Mean	SD
Retention (RE)	0.710	3	10.413	2.572
Employee Aspects (EA)	0.763	4	14.514	3.039
Training & Development (TD)	0.776	4	14.759	3.255
Leadership (LD)	0.820	4	14.469	3.531
Rewards & Recognition (RR)	0.803	4	14.587	3.392
Culture (CU)	0.760	4	14.633	3.310
Politics (PO)	0.812	4	14.511	3.437
Information System (IS)	0.780	4	14.608	3.186
Effective Change Management (EC)	0.835	5	18.276	3.948

Cronbach's Alpha of all the above variables is greater than 0.70, except Communication of Change (CC) whose Cronbach's alpha is 0.572. Hence, it has met the criteria of Cronbach's alpha of 0.70 or above, which was recommended by Hair et al., 2011 for all the variables we use for our study, except (CC). However, there has been research which has stated quite clearly that a reliability level of range of 0.5 is moderately weak but is definitely reliable and hence in this study we can conclude that all of the mentioned variables are reliable and have met the criteria for our study (Cronbach & Meehl, 1955).

### Validity Test

Factor analysis is used to measure the validity of items, and it helps in identifying whether or not the items have served the purpose for which they have been adopted & considered (Ahmed, 2021; Garson, 2016). Table No. 03 has shown the results of Validity Test.

*Table 3: Exploratory Factor Analysis*

Constructs	No of Items	KMO	BToS	Cumulative Factor
Change Implementation (CI)	5	0.821	482.376	48.99%
Communication of Change (CC)	3	0.575	86.424	37.88%
Staff Turnover (ST)	6	0.821	563.018	44.05%
Morale (MO)	7	0.838	646.842	41.87%
Retention (RE)	3	0.66	163.334	45.96%
Employee Aspects (EA)	4	0.751	279.998	45.39%
Training & Development (TD)	4	0.721	313.918	46.87%
Leadership (LD)	4	0.763	402.326	53.69%
Rewards & Recognition (RR)	4	0.79	351.112	51.13%
Culture (CU)	4	0.701	294.759	44.63%
Politics (PO)	4	0.782	379.734	52.65%
Information System (IS)	4	0.768	305.877	47.49%
Effective Change Management (EC)	5	0.832	514.303	50.72%

To be valid the constructs should meet some criteria. KMO value for all the constructs should be greater than 0.70, while the cumulative factor should be greater than 40% (Fornell & Larcker, 1981). The above table shows that KMOs of all the constructs are greater than 0.70 except two variables, i.e. Communication of Change (CC) and Retention (RE), and the KMOs for these two variables are 0.575 & 0.660 respectively. However, the Cumulative factors of all the variables are greater than 40%, except one variable, i.e. Communication of Change (CC) which possesses a cumulative factor of 37.88%. Bartlett's Test of Sphericity is also significant for all the variables, except Communication of Change (CC), which shows BToS of 86.424. Overall it is evident from the above table that constructs have passed the validity test which suggests that all constructs are related to each other and effectively served the purpose for which they are adopted (Ansari, 2020).

**Correlation**

This is the analysis which is carried out to check the relationship between different constructs and whether they have got significant relation or not. In addition to this, correlation analysis is considered as a prerequisite for conducting regression analysis, which helps in identifying the multicollinearity if exist between the constructs. If the collinearity lies in the range of 0.2 – 0.9, that range is ideal and if otherwise, should be dropped from the study as it is either too or too strong, i.e., too similar to the existing variables and are almost confused as the same variable. Variables with correlation of greater than 0.90 suggests that such variables should be dropped (Bell et al., 2015). Correlation is presented in the following Table 04.

*Table 4: Bivariate Correlation Analysis*

Constructs	1	2	3	4	5	6	7	8	9	10	11	12	13
Change Implementation (CI)	1												
Communication of Change (CC)	.586	1											
Staff Turnover (ST)	.713	.599	1										
Morale (MO)	.666	.606	.684	1									
Retention (RE)	.654	.445	.557	.469	1								
Employee Aspects (EA)	.705	.516	.718	.624	.511	1							
Training & Development (TD)	.645	.607	.642	.688	.540	.642	1						
Leadership (LD)	.689	.493	.680	.689	.588	.674	.641	1					
Rewards & Recognition (RR)	.690	.558	.657	.653	.642	.684	.699	.734	1				
Culture (CU)	.628	.567	.600	.726	.513	.635	.695	.677	.733	1			
Politics (PO)	.738	.541	.723	.672	.530	.761	.692	.807	.678	.676	1		
Information System (IS)	.671	.585	.712	.700	.574	.663	.666	.718	.714	.677	.716	1	
Effective Change Management (EC)	.758	.515	.788	.650	.592	.723	.646	.714	.697	.631	.751	.736	1

From the above table of correlation analysis, it can be noted quite clearly that all the variables are lying in the mentioned range of 0.2-0.9 (Ansari, 2020) hence this proves that all the variables do have a relationship with each other and that the relationship between these variables is also significant.

**Heterotrait-Monotrait Ratio (HTMT)**

Discriminant validity has been checked through Smart PLS. To meet the given criteria, HTMT ratios should be less than 1 (Ab Hamid et al., 2017; Henseler et al., 2016), and constructs are assumed to establish discriminant validity successfully, if data satisfies the above discussed criteria.

*Table 5: HTMT Ratio*

	CC	CI	CU	EA	EC	IS	ISxCI	PO	RE	ST
CC										
CI	<b>0.835</b>									
CU	0.976	<b>0.965</b>								
EA	0.912	0.973	<b>0.935</b>							
EC	0.930	0.998	0.870	<b>0.956</b>						
IS	0.938	0.894	0.941	0.925	<b>0.745</b>					
ISxCI	0.353	0.419	0.333	0.361	0.392	<b>0.239</b>				
PO	0.863	0.912	0.823	0.977	0.986	0.919	<b>0.526</b>			
RE	0.872	0.960	0.880	0.803	0.857	0.847	0.429	<b>0.799</b>		
ST	0.888	0.933	0.865	0.906	0.986	0.929	0.474	0.922	<b>0.915</b>	

**Regression Analysis**

Following table shows that Staff Turn-over (ST), Communication of Change (CC), Retention (RE), Employee Aspects (EA), Culture (CU), Politics (PO) have indirectly influenced the Effective Change Management (EC), while Change Implementation (CI) is a mediating variable and Information System (IS) is a moderating variable.

*Table 6: Regression Analysis*

	$\beta$ -value	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
CC -> CI	0.166	0.165	0.046	3.625	0.000
CI -> EC	0.466	0.465	0.047	10.002	0.000
CU -> CI	0.169	0.163	0.053	3.188	0.002
EA -> CI	0.219	0.224	0.052	4.225	0.000
IS -> EC	0.465	0.466	0.043	10.818	0.000
ISxCI -> EC	0.115	0.111	0.044	2.607	0.009
PO -> CI	0.143	0.137	0.058	2.479	0.013
RE -> CI	0.230	0.232	0.044	5.247	0.000
ST -> CI	0.126	0.132	0.057	2.185	0.029

Above table shows positive & significant relationship between the variables, because p-value of all variables is less than 0.05. Criteria for significant value states that independent variables have significant effect on dependent variable, if sig value or p-value is less than 0.05.  $\beta$ -value shows the effect between the variables, a value greater than 0.20 shows strong effect between the variables & if the value is less than 0.20, then this shows a weak effect between the variables (Hair et al., 2010; Kline, 2011).

*Table 7: Specific Indirect Effect*

	$\beta$ -value	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics ( O/STDEV )	P Values
CC -> CI -> EC	0.077	0.077	0.022	3.428	0.001
CU -> CI -> EC	0.079	0.075	0.024	3.215	0.001
EA -> CI -> EC	0.102	0.104	0.027	3.818	0.000
PO -> CI -> EC	0.066	0.064	0.028	2.378	0.018
RE -> CI -> EC	0.107	0.108	0.025	4.345	0.000
ST -> CI -> EC	0.058	0.061	0.027	2.167	0.031

From the above table, it is evident that p-values are less than 0.05, which suggest that all hypotheses are accepted or failed to reject.

**Conclusion**

The results of our hypothesis which were first stating that there does not exist any impact of the antecedents on the mediating, moderating and the dependent variable have been proven otherwise and that there definitely does exist an influence on the mentioned variables. As briefly explained above in the hypothesis and also proven by the test results on the SPSS and (Cartwright, 2001), change can be implemented in the (Arshad & Ali, 2023), if given that all mentioned antecedents are dealt with the same way as mentioned in the literature above. Change is quite too often adapted from formal huge organizations in the industry without really concerning the current culture of the company, improper evaluation of the employee aspects, the ongoing (Daud et al., 2023), not considering the current state of the employees morale and diving directly at the hard challenge of change without having a proper channel of (Kang et al., 2023) to the employees as to why did the change needed to happen in the first place (Wenz & Yu, 2010). For one company to know which change management strategy has to be

adopted for their company, they should first thoroughly understand the existing systems, study the possible consequences that can happen about what can go wrong, also try to determine and analyze in the work (Qing et al., 2019), whether this strategy can help the company grow or eventually die out, and focus and prioritize the company's mission, vision and goals as to what the company can do to protect and then meet its targets (Kahtani, 2020).

While we also noted in our research how the change was being implemented in the companies was not keeping in mind any of the antecedents mentioned in our research, we also came to discover that most companies, who did have the mindset to bring in change, didn't really know what change was required and just followed the steps of the other companies (Okrepilov et al., 2020). The modern day business world faces in their fast growing environments and so many of the companies face the need to implement new information systems (Park, 2018). We have concluded from our above research and literature reviews that information systems play a very vital role in enabling change management effectively (XUE, 2019). Thus, all in all, our research and tests have successfully concluded that the antecedents of change in the IT sector do indeed have an impact on bringing effective change management.

### **Research Limitations and Scope for Future Research**

It is to be noted in this study that the focus lies on the IT sector of the companies and also within the confines and the geographic boundary of the metropolitan city. Not all variables that can either be antecedents of change or have a direct impact on ECM have been taken in this research and hence this means there is more that is still left to study, explore and conclude on regarding this topic. Moreover, the state of the employees' psychological factors has not been gauged and also not included in the respondent's responses for this research. Also, there are many more said theories of change which have not been taken into consideration for this research topic and is primarily based on one theory solely, meaning there is much more to be studied and researched on if the other theories of change are kept in mind for future research purposes. Moreover, there can essentially be more factors, variables and constructs which may be related to change management and might have been overlooked in the regard of this case study and thus meaning that there is room for more research on variables that can lead to different and wider perspectives of change management in an organization. Thus, future studies on change management or related topic can cover vast information on new and unique variables that show an impact or an influence for change management, ability to accept change amongst the employees and how to successfully bring that change into action and set it as the company's new development for growth.

Many organizations are thrown at the face of change. It is a fact that change is indeed not easy and having to step out of lukewarm waters to the cold gushing waters of change is not a desired approach for companies, also employee resistance is stated to be one of the major reasons as to why so many companies fail to implement change in the first place because it is not explained why the change is necessary and what is the rising need to go for an option for change (Hassan, 2018; Wenz & Yu, 2010).

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