# Determinants of Organizational Change implementation Success: The Case of Ethiopian Commodity Exchange Authority

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*Abstract: The effect of many factors have been examined and suggested to make change implementation successful; however, organizations still report a high failure rate of their change initiatives. This high failure rates highlight the continuing need for further research to examine the factors influencing the success of organizational change implementation. As a result, the study attempted to examine the effect of internal communication, leadership, information communication technology usage, organizational culture and organizational change management method on the success of organizational change implementation construct. To undertake the study, the mixed research approach with cross- sectional time dimension was used. The data for the study was collected from 157 employees of Ethiopian commodity exchange authority using self-administered questinnaires. Both descriptive and inferencial methods were employed to undertake the analysis. From the inferencial method multiple regression model was applied. Principal component analysis was also used for testing factors reliability in composite factor construct and reduction of the multiple factors to a single composite factor . The study found that leadership, internal communication, organizational culture and organizational change management method have positive and significant effects on the success of organizational change implementation in the authority. In contrary, the effect of independent variable -information communication technology- on the success of organizational change implementation is not statistically significant. To be more specific, a one unit increase in leadership composite index , internal communication index, organizational culture index, and organizational change management method index will brings 0.958, 0.61, 0.42 and 0.59 unit increment in Organizational change implementation success index holding other factors constant.*

## 1. Introduction

### 1.1. Background of Study

Change inside the organization might influence conduct, shared convictions, the manner in which work is done and the standards that shape mental models. Shared mental models are a piece of leadership culture (Hayes, 2007). The powerful business climate requires successive changes in the manner organizations work primarily (Turner, 1999).

Despite the fact that the change execution measure is troublesome and testing, incredible endeavors ought to be placed in the execution of progress due to the fate of organizations completely relies upon the achievement of progress projects. Why it is testing is that due to change influences all parts of an organization, including system, inner construction, measures, individuals' positions and perspectives and by and large culture of the organization (Kanter et al., 1992). Hence, it needs to follow an unmistakable technique with the goal for change to be fruitful (Haidar, 2006).

Incontrary, the disappointment rate for change programs in organizations has been showed a super number, which is 70% of the change programs fizzled (Keller and Aiken 2000; Senturia, Escapes and Maceda, 2008). Moreover, later examinations note the way that this rate isn't beating that ( Jansson, 2013; Stir, 2011).

Bolman and Arrangement (2005:454) guarantee that the justification for this much disappointment is overlooking milder human viewpoints like sentiments, inspiration and responsibility. Besides, inward correspondence, leadership, change the executives technique, deliberate change method,information innovation use and hierarchical societies are a portion of the elements affecting the accomplishment of progress execution (Al-Haddad and Kotnour, 2013). A few researchers likewise contended that have a significat job in rolling out compelling improvement for an organization (Senior and Fleming , 2006 , Bennis, 1987 ). Furthermore, Kotnour (2011) discovered three empowering agents, which organization needs to have to empower effective change and improved management execution. These are information and abilities, assets and responsibility. Moreover, Dunphy and Stace (1993) contended that leader need a strategy for change that optimaly fit with the specific circumstance (p. 905). With the high variety between organization going through transform, one change approach or strategy would not be appropriate for all circumstances (Michel et

al., 2016). One-size-fits all strategies regularly bring about bombing change (Kotter and Schlesinger, 2008). There front, the disappointment rates disputably suggest an absence of a legitimate system for hierarchical change (By, 2005; Rafferty et al., 2013).

Albeit the disappointment pace of progress drives is being normal, the job of organization in the public arena is ruling and the event of progress was not disregarded (Kotter and Rathgeber's, 2006). Notwithstanding, in the hierarchical change writing, there has been an extensive conflict with respect to the most proper strategy to evolving organization, we can't overlook the occurrence of progress (Bamford and Forrester, 2003). So we need to keep on examining the point. To this end, it is needed to examine the determinants of organizational change implementation success in the case of Ethiopian Commodity Exchane Authority. Specifically the study seek to examine the effect of leaders, systematic change methods, internal communication, information technology (IT) , organizational culture and change management methods in the success of an organization change implementation in Authority. To my knowledge, study has not been yet done on topic "Factors affecting the success of Organizational Change implementation: The Case of Ethiopian Commodity Exchange Authority"

## 2. Literature Review

### 2.1. Theoretical Leteratures

Several scholar and researchers appeared and prorogated the necessity of practical change for the successful performance of organizations. Some of them argued that organizations need to take some practical organizational changes in order to get the level of long - term success and sustainability (Burnes, 2004; By, 2005; Hailey & Balogun, 2002; Kotter, 1996; Mintzberg, 1979; Moran & Brightman, 2001). While talking about these practical steps for organizations, scholars and researchers have agreed that organizations need to accept, adopt and implement changes in their business model according to changing trends, technologies, customer preferences and future concerns.

Anderson and Ackerman (2001) suggest that the main three aspects of a comprehensive change strategy are content, people and process. Content refers to the strategy, systems, technologies, and work practices. People refer to humans involved in the change, and their behavior when implementing change. The deeper the organizational change, the more important it is for people to alter their own values and perspectives to align with the overall organizational perspective (Moran & Brightman, 2001). The third aspect of change is process, representing the actions and procedures carried out to implement change. Therefore, the proper alignment between content, people and process is what leads to successful change

Literatures offer a broad range of definitions and examples of change enablers including: - a stated vision and goals for the change direction, defined roles of employees involved in change, leadership guidance or commitment in involvement, training employees and having strong human resources to measure and evaluate performance (Bridges ,2003; Griffith-Cooper & King, 2007; Kenny, 2006). Proper planning and analysis also help to identify the gap between where the organization is now and where it wants to be. The organization needs to identify the environmental conditions required for the change plan to succeed (Hotek & White, 1999; Kotter, 1996). Weber and Weber (2001) argue that people's perception of organizational readiness for change can also affect change success.

Organizations have to recognize that change without planning yields negative results; hence, they need to fully understand the possibility of getting positive and negative results of an action before it is initiated in the first place (Kanter et al., 1992; Kotter, 1996). Burnes & Jackson (2011) argued that poor planning or lack of commitment to change are the reasons for failure of change implementation. Conner (1998) believes that organizations have to realize that the drivers of change are all connected and affect each other; any change action has a chain reaction that affects the whole organization.

The business, imagination and advancement installed in management are vital to effectively overseeing change. What's more, Hamel (2007) accepts that preparing ability, designating assets, and figuring systems are essential for the organization's benefit and for keeping up with the upper hand. As per Kouzes and Posner (1995) the five fundamental leadership rehearses are displaying the way, moving a common vision, testing the cycle, empowering others to act, and empowering the heart.

Westwood and Linstead (2001) accepts that organizational communication is among factors deciding leadership adequacy and the accomplishment of arranged change. Chia and Ruler (2001) characterized leadership correspondence as the cycle by, which people animate importance in the personalities of others through verbal or nonverbal messages with regards to a conventional association. Butcher and Atkinson (2001) have contended that the way of talking of hierarchical change is restricted and pointless in light of the fact that it offers a devastated and noninterventionist framework delivering of the cycles of progress; uncommonly change upon subordinate gatherings. Countering this organizational delivering of progress they contend that granular perspectives are both solid and functional. However then again they note that the standard comprehension of progress is overwhelmed by organizational methodology , managerialist way to deal with change, which depends on a reasonable and various leveled worldview of association.

As indicated by Proch (2019), for an organization expecting change, a contention between the traditionalist gathering and the liberal gathering might dial back the course of progress. Organizational culture is an idea, which portrays the perspectives, encounters, convictions and upsides of an association (Wiener, 2018). An organization's way of life can be a significant strength when it is predictable with the technique and subsequently can be an amazing main thrust in execution. As per Johnson and Scholes (2002), social cycles can likewise make rigidities if an organization needs to change their methodology. Dealing with the system culture relationship thusly expects affectability to the communication between changes important to carry out technique and similarity or fit between those change and the authoritative culture (Pearce and Robinson, 2003). Public area organizations are frequently depicted as exceptionally unbending and incapable to adapt to oddity and change (Lam, 2004, p. 118). Davidsson (2005) imagined that the objective of the change the executives program for workers is to prepare individuals for change and lead them to move to the new climate and guide them to the better approach for running the organization. New changes thusly in associations brings new authoritative jobs and occupations depictions for the workers (Lewis, 2006).

For organizations to successfully carry out changes in their management, new frameworks are needed to consolidate new management issues inside the organization. The fundamental test is along these lines not the obtaining of such frameworks but rather the similarity of the new frameworks and the past ones. Contradiction would influence reception of progress execution the board. Likewise, Rogers (1995) certifies that specific developments are firmly interlinked, and, in this manner, there exists a solid relationship between's the past experience of the subject with specific devices and the resulting utilization of different applications.

Consequently, those subjects with more noteworthy experience of a specific IT adjust emphatically their view of other comparative advances, increment their degree of utilization, and surprisingly come to notice an example of lead separated between them (Reed et al, 2000). Thusly, the past experience of the client in the frameworks is a higher priority than experience in the change the board circle. Igbaria (1993) exhibited that past client experience has an immediate impact upon the level of ensuing acknowledgment and achievement of progress in administration (Min and Galle, 2003).

Change methods can be defined as the actions carried out by managers to deal with change and are grouped under two categories: 1) systematic change methods, and 2) change management methods (Al-Haddad & Kotnour, 2013). Systematic change strategies include a specific arrangement of cycles and devices to help the supervisory crew make a progression of start, stop, and proceed with choices (Zook, 2007). Change management techniques are more extensive and calculated when contrasted with deliberate change strategies. Change the executives techniques tackle change for a huge scope and incorporate a scope of mediation systems (Worren et al., 1999). These techniques assist the executives to adjust the change drive to the general mission and theleadership procedure by legitimate arranging and making a dream that affects individuals in change (Grover, 1999).

Change outcome can be characterized as the outcomes of progress on the association. Estimating results can add to authoritative turn of events and achievement if the estimation frameworks are appropriately evolved and utilized (Sink and Tuttle, 1989). Execution estimation assist associations with assessing the execution of destinations and the executives of tasks by giving the required data to simply deciding (Gunasekaran and Kobu, 2007; Wouters and Sportel, 2005). In this manner, for estimating change, one should be sure about the change goals. Sink and Tuttle (1989) and Sink et al. (1995) recognized seven execution gauges: (a) viability, which shows the achievement and result; (b) proficiency, which demonstrates the results comparative with the assets utilized; (c) quality, which shows the cycle capacity and worth; (d) usefulness, which demonstrates the yield contrasted with input; (e) development, which shows the imagination and the thoughts set in motion; (f) nature of work life, which shows the specialists' conditions; and (g) benefit and "budgetability," showing the income (what was procured contrasted with what was guaranteed) and the financial plan versus the genuine expense.

### 2.2. Empirical Literatures on Factors Affecting Change Management

Successful management of change is crucial to any organization in order to survive and succeed. For change to be successful, an organization has to overcome all the challenges. The major factors effecting successful change management according to Suresh (2001) are leadership, focus, commitment and resistance. Smith (2002) also conducted a study to determine the major reasons behind organizational change failure and success in different industries across North America. He found that visible and sustained sponsorship, addressing the needs of employees, and strong resources dedication as the main factors affecting change success.

Chepkorir (2013) conducted a study on the factors affecting management of change in the road agencies in Kenya. The study found out that management styles have an effect on management of change within the road agencies. The result of the study also indicated that management of change was affected by factors like creating and sharing an organizational goal, acting as a role model, encouraging creativeness, providing support for employees and allowing employee participation in making job-related decisions. Emmah (2012) also undertook a study on factors influencing management of change in public sector organizations in Kenya, which was guided by a cross sectional descriptive research design with a sample size of 155 respondents. The study found that the major triggers for change management in the organization were external factors. The study also found out that communication, attitude

towards change, organizational change and organizations systems were the major factors influencing change in public sector organizations in Kenya.

Key findings from research conducted by Sathe (1985) also evidenced that a strong culture has a greater number of important shared assumptions, which are more widely shared throughout the organization and more clearly prioritized in terms of relative importance. He found that the greater the strength of the culture and the larger the magnitude of the change, the greater the resistance to change.

In Ethiopia, Abebe et al. (2106) has conducted study on challenges and practices of change management in Addis Ababa University Bishoftu College  using a mixed research approach. The study found that change strategic plan held in the college working culture improved staffs to build the mutual interest each other than before, improved the practices of sharing ideas and reduced the change resistance occurred at the beginning of change implementation  plan.  The  evaluation  of  the  change  management  was confined on the paper report on the routine activities. Sense of ownership, national and group interest was going down time to time and passive relationships of leaders towards the worker was increased.

Finally, the conceptual framework presented in figure 2.1 is proposed to examine the determinants of the  organizational change implementation  success.  Establshing  the  relation  between    the  explanatory  variables  such  as  leadership,internal communication,organizational culture ,information technology usage and change management method and the dependent variable success of organizational change will enable  to identify the magnitude and direction of the effects of factors.
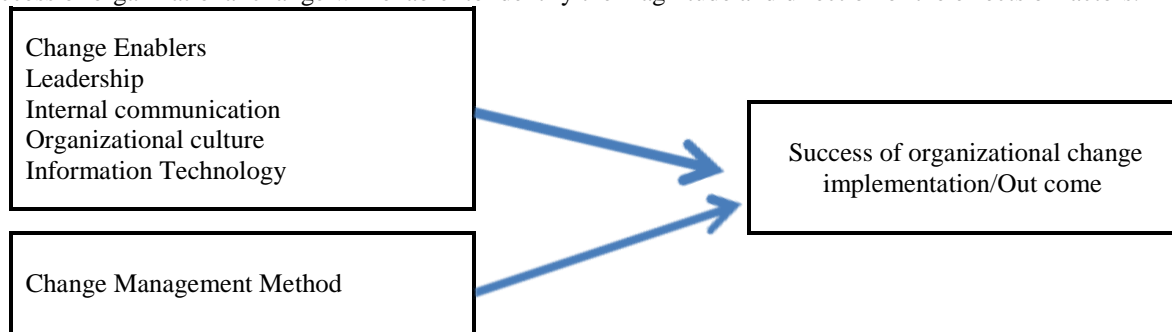


**Figure. 2.1. Research Conceptual Model**

## 3.    Research Methodology and Materials

According to Mark et al. (2009) mixing of qualitative and quantitative approaches give the potential to cover each method's weaknesses with strengths from the other method. In this study, both qualitative and quantitative approaches of doing research have been employed, as recommended by Creswell (2009:203-216). The research designs adopt in this research was both descriptive and causal in nature.

The time dimension of the study is cross- sectional. Respondents were asked once about issues (Cooper & Schindler, 2010). The method of data collection was performed through self-administered, which was given to the relevant subjects in person. Perceptive questions were operationalized by using 5-point Likert - scales. This made it possible to process the data quantitatively so that the developed model could be tested with the use of statistical tools.

In order to have a clear definition of the population for the research, it was chosen to define population as active employees who are in work by the time of data collection. Therefore, employee who were not in annual leave, on short and long-term training was included in the population. This also made it easier to compare the sample with the population after the primary data is collected. As the evidence from records of Authority shows, there are 170 number of total employees as of April 2021 .

Both primary and secondary sources of data were used to undertake the study. The major sources of secondary data had been the authority publications, annual and inventory reports, previous studies, and other related literatures. Whereas, the primary data source was the data collected using questionnaires from employees of the Authority.

Since, conducting census survey is manageable in terms of cost, size of population and time, census method was chosen for this study. It was decided that the whole population was to receive a questionnaire, and the one who responded would be part of the final sample. It is challenging to be sure that the final sample actually contains data that is representative for the whole population. For this study purpose, only responded respondents were considered as samples. The sample size, therefore, is adequate to represent the study population

Both descriptive and inferential methods were employed to analyze the data. Among the inferential method, correlation and multiple regression analyses were used. Patterns or content analysis method was used to analyze the qualitative data. Quantitative data analysis has assisted by SPSS 21.

Factor analysis (FA) was also applied to simplify complex data (Taherdoost et al.,2020) and to explore the primary factor structure of the constructs being studied (Hurley et al., 1997; Kim et al., 1978). Factor analysis helps in identifying variables that explain most of the variance observed in a construct (Dillman et al., 2009). It is used to reduce larger sets of variables and summarizes them to composite or indexed factor. This enabled to extract the composite dependent and independent from different constructs.

The interest of author in this study is measuring and establishing the factors that influence the success of organizational change implementation in the case of Ethiopian Commodity ExchangeAuthority. The factors affecting the success of organizational change implementation are the independent variables and dependent variable is the success of organizational change implementation, which is measured by proxy variable organizational change outcome. The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where, Y is the dependent variable (organizational change implementation success), $\beta_0$ is the regression constant. The parameters $\beta_1, \beta_2, \beta_3, \beta_4$ and $\beta5$ are the regression coefficients associated with $X_1, X_2, X_3, X_4,$ and $X_5$ variables, respectively. $X_1$ is communication, $X_2$ is the leadership, $X_3$ is change management method, $X_4$ is organizational culture, $X_5$ is system of organization and $\varepsilon$ is the random error component reflecting the difference between the observed and fitted linear relationship.

## 4.    Results and Discusssion

### 4.1.  Response Rate

In a population survey of 170, 157 questionnaires were returned correctly filled representing a response rate of 92.35%. According to Kothari (2004) a 50% response rate is adequate, 60% good and above 70% rated very good. Therefore, that, this response rate is categorized as very good.  As we considered 157 as sample size, then turn-out would be 100

### 4.2.  Reliability Test of Composed Factor Constructs

To ensure a good factor analysis, variables should be correlated to some extent, but not be correlated perfectly (Field, 2005). The correlation matrix between the variables was therefore scanned in order to see if there was any correlations coefficient above 0.9 as presented in appendix.A.none of these was found. Thus, the requirement was satisfied. As the result, no variable suggested to be eliminated from the analysis at this stage.

One way of testing the consistency between the items in each factor is through the Cronbach's alpha test. The Cronbach's alpha is based on the average inter-item correlation. A scale with a Cronbach's alpha higher than 0.7 is required in order to create a reliable construct of multiple variables (Pallant , 2005).

Accordingly, six variables that were supposed to form the construct of the independent variable leadership were tested and the Cronbach's alpha for all six variables was .860, which is a good score. Likewise, analysis was done to know how much the reliability would increase/decrease if any of the items are deleted as indicated in appendex. If the variable measuring lack of proper knowledge by top leaders removed, reliability would increase from 0.86 to 0.882. It was therefore, decided to exclude the lack of proper knowledge by top leader is variable and only keep five variables in the final construct.

Likewise, as shown in table 4.1, the Cronbach's alpha for all six variables which used to construct internal communication composite variable was 0.817, which is a good score.As indicated in Appendix B, omitting the variable employee training would increase the reliability from 0.817 to 0.831. It was therefore, decided to exclude that there is adequate training to enable employees cope with the change implementation variable and the remaining five variables were used to construct the internal communication composite factor.

As shown in table 4.1, the reliability test of all variables that were used  to construct the organizational culture composite index has Cronbach's alpha of .761, which is a good score. And as presented in appendix B , If the variable measuring employee resistance towards change removed, the reliability of the remaining variable used to construct the organizational culture composite factor would increase from 0.761 to 0.805. Therefore, it was decided to exclude employee's resistance towards change variable and the remaining three variables wre used to construct the variable. Similarly, the Cronbach's alpha which is  824 for all five variables that were supposed to form the construct of the independent variable information communication technology index was looks a good score. And the reliability test of the variables used for the final construction the communication technology index shows all variable are reliable for the construction.

As shown in the table 4.1, the Cronbach's alpha which is 0.897 for all the eight variables that were selected to form the construct of the dependent variable change success index is signaling a good score. As seen in appendix B, the Cronbach's alpha for each of the eight factors was less than or equal to the Cronbach's alpha for all eight variables i.e.0.897. Thus, no factor is excluded from final construct of the variable change success index.

Finally, the five variables that were supposed to form the construct of the independent variable change management method composite factor has Cronbach's alpha of 0.774, which is a good score. The reliability test of the items shows that If we remove the variable change projects alignement with the overall mission of organization the reliability of the remaining four variable would increase and the Cronbach's Alpha for each factors will become greater than 0.7 as shown in the appendix B. It was therefore, decided to exclude the change projects alignenment with the overall mission of organization to construct organizational change management method compsite factor.

Table 4.1: **Reliability Test Statistics for the Composite Factors Construct**

| Reliability Test Statistics for Leadership Index Construct | |
|---|---|
| Cronbach's Alpha | No. of Items |
| 0.86 | 6 |
| Reliability Statistics for Internal Communication Index | |
| Cronbach's Alpha | N of Items |
| 0.817 | 6 |
| Reliability Statistics for Organizational Culture | |
| Cronbach's Alpha | N of Items |
| 0.761 | 4 |
| Reliability Statistics for Information Communication Technology Index | |
| Cronbach's Alpha | N of Items |
| 0.824 | 5 |
| Reliability Statistics for Change Success Construct | |
| Cronbach's Alpha | N of Items |
| 0.897 | 8 |
| Reliability Statistics for Change Management Method | |
| Cronbach's Alpha | N of Items |
| 0.774 | 5 |

**Qualitative Analysis for the open ended Questions**
Open ended questions were posed to the respondents with the intention of identifying the challenges experienced in the change implementation process in the authority. When their responses categorized in major parts of challenges, the incompatibility of the ICT with mission, ineffective internal communication in some instances, weak work culture, weakness in implementation and evaluation of change projects, absence of incentives for employee, shortage of chance for educations for employee, shortage of vehicles for field based work and weak engagement of few leaders and employees for change were the main challenges. Likewise, lack of adjustment of the employees with newly introduced systems and instruments on the due process of change implementation. To bring these and other related challenges, which were stated by the respondents to a broader term, the incompatibility of the ICT with mission, shortage of charismatic leader and presence of gaps in aligning the change management methods with the specific context of the authority.

**4.3. Correlations and Multicollinearity**

Before presenting the regression models, one should inspect if there are excessive correlations between the variables in the model. The correlation matrix can have scanned as a preliminary look for multicollinearity. To avoid multicollinearity in the sample, there should be no substantial correlations (R > 0.8) between the predictors (Field, 2005). The correlation matrix in Appendix. A Shows

that, there are no variables that have excessive correlations, which is greater than 0.8 between them. Although regression and correlation must be treated as different things, one can scan the correlation matrix in order to see potential relations that may also show up in the regression models. In addition to checking the correlation matrix, it is important to check the variance inflation factor (VIF). VIF indicates whether a predictor has a strong linear relationship with other predictors in the model. The largest VIF should not be greater than 10, and the average VIF should not be much higher than one (Field, 2005). The VIF for each predictors and the average are summarized in Table 4.2 below. All VIF values are well below 10 and the average is close to one. One can therefore conclude that there are no signs of excessive multicollinearity within the model.

**Table.4.2. Variance inflation factor of predictors**

| Predictors | VIF |
|---|---|
| leadership composite index | 1.194 |
| Internal communication index | 1.098 |
| organizational culture index | 1.093 |
| Information technology index | 1.054 |
| Organizational change management method index | 1.244 |

a. Dependent Variable: Organizational change success index
Source: Own survey, 2021

Adjusted R squared is coefficient of determination, which tells us the variation in the dependent variable due to changes in the independent variable. Based on this sense, R-square ($R^2$) =0.96 shown in the table below indicates that 96% of the variation (change) in organizational change implementation success is attributed to the effect of leadership composite factor, internal communication composite index, organizational culture composite index.

**Table.4.3: Regression Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .980[a] | .961 | .960 | .10694052 |

**Source: constructed from survey data,2019**

### 4.3.1. The Model Adequacy Test

The pro (F-statistics) =0.00 presented in the table below, which is less than the conventional level of significance such as 0.01 or 0.05. Thus, we reject the null hypothesis and can conclude that at least one of the explanatory (independent) variables is significant, that is there is a significant linear relationship between the dependent variable Organizational change implementation success index and independent variables such as Organizational change management method index, Information technology index, Internal communication index, organizational culture index and leadership composite index.

**Table .4 .4: Analysis of Variance (ANOVA)**

| | Model | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 42.342 | 5 | 8.468 | 740.483 | .000[b] |
| | Residual | 1.727 | 151 | .011 | | |
| | Total | 44.069 | 156 | | | |

Source: Computed from own survey data, 2019

### 4.4. Discussion of the Regression Model Result

As shown in the regression estimation output Table 4.5 below, the variable such as leadership composite index, internal communication index, organizational culture index and organizational change management method index has positive sign coefficients as expected. Except organizational culture index, which is significant at 5% level of significance, the other remains are statistically significant at 5% level of significance. Likewise, since p-value for information communication technology, which is 0.274, is greater than the conventional level of statistical

significance 0.01 0r 0.05; it is not statistical significant. Thus, except information communication technology, those explanatory variables with positive and statistically significant coefficients have direct linear relationship with the dependent variable. The major respondent's response for the open question posed to assess the challenges experienced in the change implementation is incompatibility information technology installed with the organization missions. This might be the reason for the insignificance of the role of information communication technology on the success of organizational change implementation.

To be more specific, a one unit increase in leadership composite index , internal communication index,  organizational culture index, and organizational change management method index will brings (results) 0.958, 0.61, 0.42 and 0.59 unit increment in Organizational change implementation  success index holding other factors constant. This statistically significant effect of organizational culture on the dependent variable change implementation success has similarity with finding of Agili and Okibo (2015) studies conducted in selected public universities in Kenya.

Likewise, the finding regarding the internal communication has similarity with the finding of study conducted by Beatrice (2017) in Kenya on topic factors affecting change management in state corporations.This study found that communication by top leadership influenced change implementation success in the organization largely. Some failure in internal communication had led to  failure of  implementation  of  change  management largely. This implies that communication is key, during the change implementation process for it to be a success. In similar fashion, the finding regarding the influence of leadership on the change implementation success shown above has similarity with finding of study undertaken by Khan et al.(2016) on role of leadership on organizational change in Pakistan. Finally, they found that a leader with its competencies i.e."Visionary","democratic"and "transformational" along with "Innovative Approach" could ascertain more effective organizational change implementation with success. In addition, Beatrice (2017) conducted a study in Kenya on a topic factors affecting change management in state corporations. The result highlited that highly skilled leadership has most desirable positive effect on organizational change implementation success.

**Table.4.5: Multiple Regression Model Out put**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | -.049 | .025 | | -1.911 | .058 |
| leadership composite index | .927 | .017 | .958 | 54.440 | .000 |
| Internal communication index | .059 | .016 | .061 | 3.610 | .000 |
| organizational culture index | .042 | .017 | .042 | 2.510 | .013 |
| Information technology index | -.015 | .014 | -.018 | -1.097 | .274 |
| Organizational change management method index | .058 | .017 | .059 | 3.311 | .001 |

Source: Computed from own survey data, 2019

## 5.    Conclusion

The main objective of the study was to examine the factors influencing success of organizational change implementation in the case of Ethiopian commodity exchange authority.Accordingly, the result of the study indicates that organizational change management method, internal communication, leadership and organizational culture have positive and significant role in the success of organizational change implementation in the authority. As the result, one can deduce that choosing an appropriate organizational change management method that fits the goals and objective of an organization is very crucial in change implementation success. Similarly, we can conclude that good internal communication positively influences organizational change implementation as employees are prepared for the changes.

The study also concludes that the effective leadership of authority has significant role to play for successful organizational change implementation. Leaders, usually control resources such as people, budgets, and equipment, and thus have the authority to make decisions and to commit adequate resources in orders to ensure successful change management process. In similar ways, organizational culture influences the success of change implementation as shown in the regression analysis result of this study. This implies that institution's culture is found to be a powerful driving force in implementation of change when consistency of the culture gets well with the change management strategies. Evidence also suggests that organization members are more inclined to embrace change when the organization's culture is aligned with the mission and goals of the organization.

**Declarations**

**Ethics approval and consent to participate**
This study does not involve human subjects, human material, or human data.

**Consent for publication**
This manuscript does not include details, images, or videos relating to individual participants.

**Competing interests**
The author ensures that there are no conflicts of interests concerning the publication of this article.

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## Appendices

### Appendix .A. Correlation Analysis

| Correlations | | | | | | |
|---|---|---|---|---|---|---|
| | | leadership composite index | Internal communication index | organizational culture index | Information technology index | Organizational change management method index |
| leadership composite index | Pearson Correlation | 1 | -.125 | .159* | .128 | .326** |
| Internal communication index | Pearson Correlation | -.125 | 1 | .009 | .163* | .147 |
| organizational culture index | Pearson Correlation | .159* | .009 | 1 | .018 | .283** |
| Information technology index | Pearson Correlation | .128 | .163* | .018 | 1 | .036 |
| Organizational change management method index | Pearson Correlation | .326** | .147 | .283** | .036 | 1 |

Source: Computed from own survey data, 2019

**Appendix B**.Total Statistics for Composite Factors Construction

| S. No. | **Item-Total Statistics for Leadership Index Construct** | Cronbach's Alpha if Item Deleted |
|---|---|---|
| 1 | Leaders influenced the major decisions during the change project | 0.847 |
| 2 | Top leadership commits resources and support necessary for change success | 0.826 |
| 3 | Top leadership create and share the organizational goal with employee | 0.816 |
| 4 | Top leadership support in employee participation in job related decision making | 0.819 |
| 5 | Leadership guidance on change implementation process | 0.822 |
| 6 | Lack of proper knowledge by top leaders | 0.882 |
| | **Item-Total Statistics for Internal Communication Index** | |
| 1 | Change management is communicated effectively within the department | 0.798 |
| 2 | There is mutual relationship among the workers, which enables communication | 0.759 |
| 3 | Some failure in internal communication have sometimes led to failure of change success | 0.784 |
| 4 | There is clear vision that governs change in the organization | 0.777 |
| 5 | Leadership influences the change implementation practices | 0.774 |
| 6 | There is adequate training to enable employees cope with the change implementation | 0.831 |
| | **Item-Total Statistics for Organizational Culture Index** | |

| 1 | The institution's culture is consistent with the change implementation strategy | 0.68 |
|---|---|---|
| 2 | The institution's culture is a powerful driving force in implementing of change | 0.699 |
| 3 | Employees have positive attitude towards change | 0.637 |
| 4 | Employees have resistance towards change | 0.805 |
| | **Item-Total Statistics for Information Communication Technology Index** | |
| 1 | Installation of new IT system poses financial challenge in the change | 0.824 |
| 2 | Lack of proper knowledge on IT poses a challenge in change implementation | 0.773 |
| 3 | Mismatch between software tools and organization need challenges the success of change | 0.762 |
| 4 | Compatibility of the different systems cause a challenge in the success of change | 0.773 |
| 5 | Low technological learning ability poses financial challenge in the change | 0.809 |
| | **Item-Total Statistics for Change Success Construct** | |
| 1 | Organizational change projects have completed within the predetermined schedule | 0.888 |
| 2 | The change projects have completed within the allocated budget | 0.894 |
| 3 | All desired goals and objectives of the change projects have accomplished | 0.87 |
| 4 | Organization's employees were sincerely satisfied with the change project results | 0.892 |
| 5 | The change project actions were strongly integrated with every day activities | 0.882 |
| 6 | The changes were properly implemented by addressing the situation | 0.873 |
| 7 | The performance of the project on solving the identified problem were accurately measured | 0.888 |
| 8 | Employee has trained properly to overcome gaps in skills and knowledge needed to successfully implement the change | 0.884 |
| | **Item-Total Statistics for Change Management Method** | |
| 1 | The change situation that needed to be addressed were clearly identified | 0.726 |
| 2 | The situation to what changes needed were analyzed | 0.704 |
| 3 | Top management is committed to change management practice in the organization | 0.686 |
| 4 | The change projects were aligned with the overall mission of organization well | 0.822 |
| 5 | Change project were aligned with the overall mission of the organization | 0.703 |