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Factors Affecting the Effectiveness of Change Management: A Case Study for Hawassa Industrial Park

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Abstract:

This study is aimed to show that to assess factors affecting the effectiveness of change management in Hawassa Industrial Park. The study employed primary source of information through questionnaire. The researcher used a simple random sampling for this selected specific topic in the study area. In the data analysis perspective explanatory and confirmatory factor analysis (CFA) methods were used and model fit index was conducted to select good fit model by suing Structural equation Modeling's (SEM) software of AMOS to analyze regression and confirmatory factors of variables. The questionnaire was distributed for 76 respondents and all questionnaires were responded. In the study the value of R Square was 0.684. This shows that 68.8 percent of the effectiveness of change management can be explained by the independent variables while, the remaining 31.6 percent of change management is influenced by other factors. Another major issue of the study was model fit indices and factor analysis. The study has a good model fit indices in majority of variables and almost all factors were selected for the study. Finally, a series of hypotheses are posited to explore the relationships of the variables. According to the findings of this study shows that change leadership, communication, employees' engagement, and employees' commitment employees' empowerment have significant positive effect on effectiveness of change management. For this finding the researcher recommended as industry should emphasize on employees' engagement through policy development that encourage employees' engagement and participative decision as well as leadership training are needed to be practical responsibility of Hawassa Industrial Park.

Keywords:
Change management; employees; Industrial park; employees' engagement; empowerment communication

I. Introduction

Over the past few decades, the operating environment of companies and organizations has changed rapidly (Sundholm, 2000). Change comes in all shapes, forms, and sizes and therefore, it influences all organizations in all industries (Todnem, 2005). Liukkonen, Jaakkola and Kataja (2006) described change as a vague zigzag image because it is unpredictable. Globalization, technological change, digitalization and changes in workforce, are just few examples of changes that requires action from organizations. Today organizational change, or also known as organizational reform, is the new normal and ever-present element that forces organizations to adapt their activities in accordance to the changing environment. Changes can be triggered by external factors or it can evolve from internal pressures. Change can be rapid and radical, long-term changes and everything between. (Todnem, 2005.) The topic of organizational change is getting more attention than ever (Todnem, 2005). Academic fields such as human resource management, leadership, and psychology, have studied organizational

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change from different perspective. Looking at the number of publications with the keyword of "organizational change" in Google Scholar reveals the increasing interest into this topic over the years.

1.1 Statement of problems

Bringselius (2014) stated that management viewed obstacles to organizational change as being an issue of employee resistance, rendering the change ineffective. Lawler and Sillitoe (2010) suggested that a change management model might provide a reduction in employees' resistance to change, thereby successfully instituting change management in the universities. The general business problem in this study was that employees are usually not a part of the process in any new or upgraded system implementation that directly affects their job. When handling organizational change, management usually decides how a change will take place and what method will be used to incorporate the change, without involving the employees (Brenner, 2008).

In Ethiopian context there are different researches conducted in the area of change management. Wolansa Wegayehu (2014) in his research of change management founded that time is the most determinant factor to evaluate the role of change management in the organizations because it is difficult to evaluate the role of change management or transformation in short period of time. Haymanot Berhanu (2014) in the study the employees where not felt a good affiliation on the change practice of their organization due to these fact, the organization could not provide the harmonies changing system to the workers. Dr. Hiyab Gebretsedik Weldearegay (2018) stated that the companies change management aspect is affected by both external and external factors. The main external environment is government and the main internal environment is employee's resistance toward change management. He employed mixed research method for this specific title.

Thus, According to Muller- Bloch and Kranz (2014), a framework of research gap earlier researchers have the methodological gap that all the researchers were employed qualitative research method Whereas, this research would be done based on mixed research approach.

1.2 Study Purpose

a. General Purpose

The general purpose of this study was to assess factors affecting the effectiveness of organizational change management: Case Study of Hawassa Industrial Park.

b. Specific purposes

The specific purposes of this study are:

1. To assess the effects of change leadership on effectiveness of change management
2. To determine the effects of communication on effectiveness of change management
3. To find out the effects of employee engagement on effectiveness of change management
4. To identify the role of employee commitment effectiveness of change management
5. To assess the effects of employee empowerment on effectiveness of change management

1.3 Significance of the study

Practically this study would assess and reveal the existing change management practices in the study area and the result might be useful to the concerned body like Ethiopian Investment Commission (EIC), Industrial Park Development Corporation (IPDC) and to the association of foreign investors to look into the policies, regulations and reports of change management practices. Academically change management, its role and employees perception is

an under researched area and there is lack of literatures in Ethiopian context. So, when finalized it might be useful reference for future researcher in the area.

II. Review of Literature

2.1 Conceptual Clarifications of Change Management

Moran and Brighton (2011) defined change management as the process of continually renewing an organization direction, structure and capabilities to serve the ever changing needs of external and internal customers. Structural Change management is an important aspect of the discipline management that tries to ensure that a business or any organization of people and asset responds to the environment in which it operates, (Van de Ven and Poole, 1995), by a conscious introduction of new ways of thinking and operating that suit the demand of the changing world for better future (Freese, 1998) Change management occurs when you need to adapt to the environment (Child and Smith, 1987; Leana and Barry, 2000), or when you are dissatisfied with where you are. (Boeker, 1997).

Change management has got different typologies. Changes can be defined along a continuum starting in magnitude (incremental, major changes and transformational), by Focus of change (strategic or operational), by Level of change (individual, team, organizational), (Bernard, 2004, Strebel, 1994), and by phase of change (unfreezing, moving and refreezing), (Kurt lewin, 1947). From all these classifications the researcher will focus in magnitude perspective and classifications based on phase of changes.

a. In magnitude perspective

Incremental changes: are small changes that alter certain small aspects, looking for an improvement in the present situation, but keeping the general working framework (Levy, 1986).

Major changes: are substantial changes in an organization and its operations (Nadler and Tushman, 1989).

Examples include organizational restructuring, producing new product lines, opening new branches or sites of operation, etc.

Transformational changes : are radical changes where the organization completely changes its essential frameworks and values (Ghoshal and Bartlett, 1996), looking generally for a new competitive advantage in the market (Frankwick, 1995) and affecting the core concepts of the organization (Ruiz and Lorenzo, 1999) **From Phases of the change process perspective**

b. Lewin's Three Phase Theory of change management process

Kurt Lewin is often cited for his key contribution to organizational change, (Burnes 2004; Rumelt, 1995). A successful change project, Lewin (1947) argued, involved three steps, which is known as the unfreezing-change- refreeze model (Burnes (2004). These are *Point 1 – Unfreezing*

According to Lewin's(1947*)* argument the stability of human behavior was based on a quasi-stationary equilibrium supported by a complex field of driving and restraining forces. He argued that the equilibrium needs to be destabilized (unfrozen) before old behavior can be discarded (unlearnt) and new behavior successfully adopted. It means getting motivated to change this phase of change is built on the theory that human behavior is

established by Past observational learning and cultural influences. Change requires adding new forces for change or removal of some of the existing factors that are at play in perpetuating the behavior. The unfreezing process has three sub-processes that relate to a readiness and motivation to change for proper unfreezing to occur.

a. *Disconfirmation of the validity of the status quo: where present conditions lead to dissatisfaction. However, the larger the gap between what is believed and what needs to be believed for change to occur, the more likely the new information will be ignored.*

b. *The induction of guilt or survival anxiety: previous beliefs now being seen as invalid creates "survival anxiety." However, survival anxiety may not be sufficient to prompt change if learning anxiety is present.*

c. *Creating psychological safety: learning anxiety triggers defensiveness and resistance due to the pain of having to unlearn what had been previously accepted. Three stages occur in response to learning anxiety: denial; scapegoating & passing the buck; and maneuvering & bargaining. It is necessary to move past the possible anxieties for change to progress. This can be accomplished by either having the survival anxiety be greater than the learning anxiety or, preferably, learning anxiety could be reduced, Schein (1996).*

Point 2 –Changing (Moving)

Once there is sufficient dissatisfaction with the current conditions and a real desire to make some change exists, it is necessary to identify exactly what needs to be changed. Three possible impacts from processing new information are: words take on new or expanded meaning, concepts are interpreted within a broader context, and there is an adjustment in the scale used in evaluating new input.

A concise view of the new state is required to clearly identify the gap between the present state and that being proposed. Activities that aid in making the change include imitation of role models and looking for personalized solutions through trial-and-error learning.

As Schein (1996), unfreezing creates motivation to learn but does not necessarily control or predict the direction'. This echoes Lewin's view that any attempt to predict or identify a specific outcome from planned change is very difficult because of the complexity of the forces concerned. Instead, one should seek to take into account all the forces at work and identify and evaluate, on a trial and error basis, all the available options (Lewin, 1947).

Point 3 – Refreezing

Refreezing is the final stage where new behavior becomes habitual and the change permanent which includes developing a new self-concept & identity and establishing new interpersonal relationships. It seeks to stabilize the group at a new quasi-stationary equilibrium in order to ensure that the new behaviors are relatively safe from regression. The main point about refreezing is that new behavior must be, to some degree, congruent with the rest of the behavior, personality and environment of the learner or it will simply lead to a new round of disconfirmation (Schein, 1996). This is why Lewin saw successful change as a group activity, because unless group norms and routines are also transformed, changes to individual behavior will not be sustained. In organizational terms, refreezing often requires changes to organizational culture, norms, policies and practices (Cummings and Huse, 1989).

2.2 Theoretical Framework

The theoretical framework for this study is the eight stage model to transforming an organization as recommended by Kotter (1995) for organizations. This model is depicted as follows by Kotter:

Stage 1: Not establishing a great enough sense of urgency
Stage 2: Forming a powerful guiding coalition;
Stage 3: Creating a vision;
Stage 4: Communicating the vision;
Stage 5: Empowering others to act on the vision;
Stage 6: Planning for and creating short term wins;
Stage 7: Consolidating improvements and producing still more change;
Stage 8: Institutionalizing new approaches

Kotter developed this eight stage model after noting the eight most common ineffective strategies that organizations use in change initiatives--strategies that impede success. These strategies are explored below in order to provide additional context for the model.

2.3 Research gap

In general, according to the above studies, the following findings were discovered. These are knowledge and visible awareness gap between employees and management effectiveness, Change Leadership Communication, Employee Commitment, Employee Engagement , Employee empowerment, managers' resistance, inadequate knowledge about change, insufficient training and less devotion to training, costs exceed budgets, and timeliness developed for change implementation, unproductive employee participation and feedback mechanism, weak communication, staffs resistance and systemic ignorance of change because of lack of practical reward mechanisms and motivation. Beside to these Companies change management aspect is affected by both external and external factors. The main external environment is government and the main internal environment is employee's resistance toward change management. Moreover, most of the researchers were employed qualitative method approach but most of them were not employed mixed method.

2.4 Research Hypothesis

A research hypothesis is predictive statement, capable of being tested by scientific methods; it relates an independent variable to some dependent variable (Kothari, 2004). It is a statement about the relationship between the dependent and the independent variable to be studied. Traditionally the null hypothesis is assumed to be correct until research demonstrate that the null hypothesis is in correct (Mathers, et al., 2007).

Based on the above objective and different literature, the following hypotheses are set for the study under consideration:

Ho1: Change leadership has no positive and significant effect on effectiveness of change management in Hawassa Industrial Park
Ho2: Communication has no positive effect on effectiveness of change management in Hawassa Industrial Park.
Ho3: employee engagement has no positive effect on effectiveness of change management in Hawassa Industrial Park.
Ho4: Employee commitment has no a significant effect on vegetable products marketing
Ho5: Employee empowerment has no significant effect on effectiveness of change management

2.5 Conceptual Framework

The conceptual framework is essential as a guideline in identifying important variables and for effective and efficient data collection. Scarborough and Kidd (1992) suggest that such a framework should help to indicate the most useful area in which to focus the limited research resources and ensure that data collected are relevant to meet the objectives of the research.

The conceptual framework in Figure 2.1 illustrates how independent variables related with dependent variable.

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Independentvariables **DependentVariable**

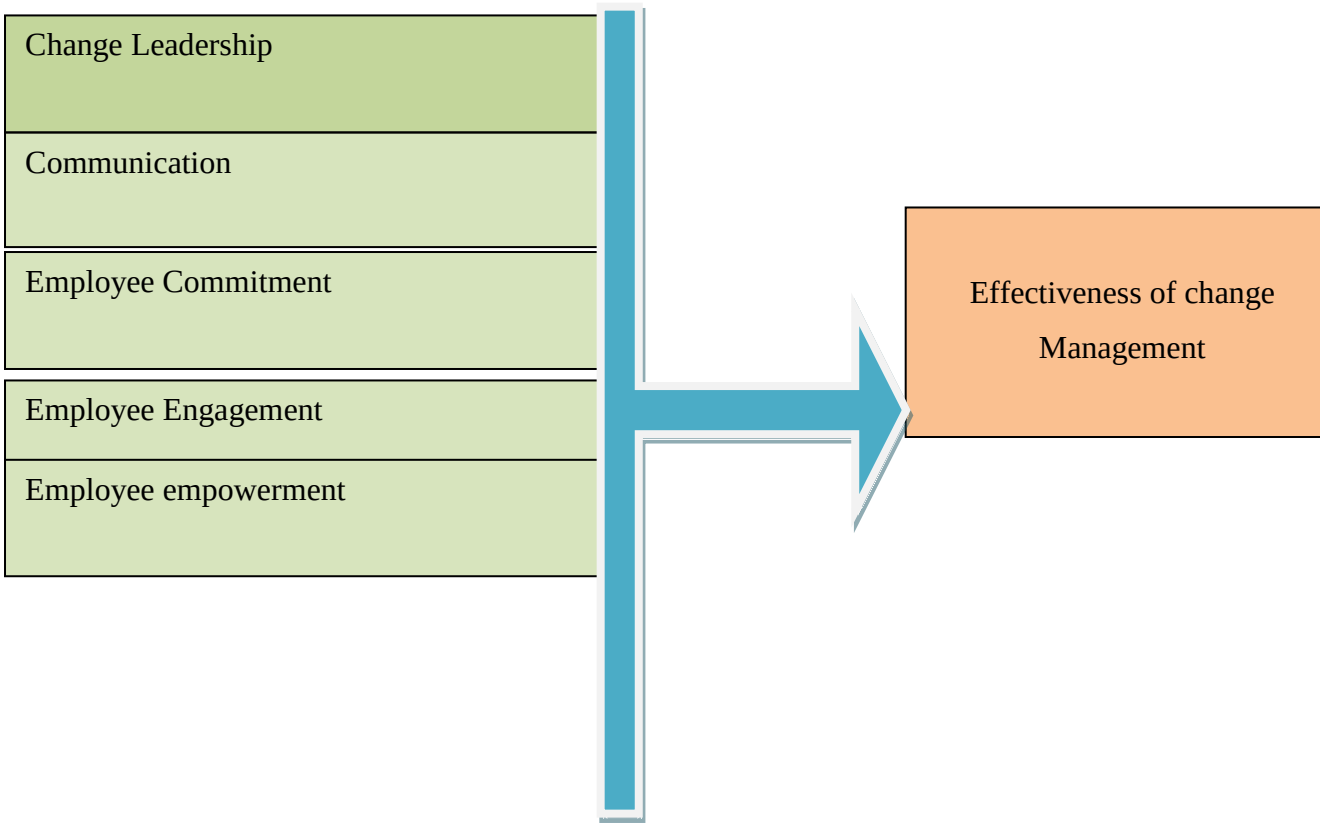

Figure 1. *Conceptual Framework: Researchers own sketch*

III. Research Method

3.1 Research Design

Research design is the blueprint for fulfilling research objectives and answering research questions. In other words, it is a master plan specifying the methods and procedures for collecting and analyzing the needed information (Malhotra, 2004). The main purpose of this study is to assess factors affecting organizational change management in the case of Hawassa Industrial Park.

3.2 Study Population of the Study, Sampling design and Sample Size

Currently 18 leading foreign companies are operating their business in Hawassa Industrial Park (HIP). So, the target population of this study will be administrative bodies and

permanent employee working in HIP.For this study, Simple random sampling would be employed. This is a method of sampling in which every member of the population has the same chance of being included in the sample. (Kothari, 2004). From eighteen companies, seventy two (72) permanent employees and four (4) administrative staff will be selected as participants randomly.

For this study, more than 76 respondents (workers) from Hawassa Industrial Park would be targeted as sample size that has been determined by using the following formula (Saunders et al.; 2000).

$$n = \frac{z^2 pq}{E^2} = \frac{(1.96)^2 (.50)(.50)}{(.05)^2}$$

=76

Where:
n = adequate number of sample size with a given amount of confidence level (95% confidence level) which is recommendable in social science.
N = population size
Z = table value of the confidence level from normal distribution table
E = the researcher's tolerable amount of error
p= the probability of success (the proportion of the study unit who may give adequate information)
q = the probability of failure (the proportion of the study unit who may not give adequate information)

This sample size is hoped to generate the required information with relatively good precision for infinite or large populations (Saunders et al.;2000).Also it is more than recommended size for applying statistics tools such as; factor analysis, AMOS, regression etc. (Julie, 2005; Field, 2013)

3.3 Sources of Data and Methods of Data Collection

For this study personal interview and questionnaire would be employed.

3.4 Data Analysis

To test the relationships between various variables of change management, change management effectiveness, statistical technique for hypothesis testing specifically, regression analysis and structural equation modeling (SEM) would be used.

3.5 Reliability and validity

In order to attain reliability in a study, different precautions can be taken, such as making sure that the questions are interpreted in the way in which the researcher/s planned and the same study should have similar results if it is conducted at a different point in time (Andersen, 1998). Validity is the ability to measure what one intended to measure, and construct validity involves the operational measures for the studied subjects (Yin, 2003).

3.6 Reliability Test

In order to determine the reliability of the questionnaire in the study, Cronbach alpha was computed for each of the five independent variables and for the one dependent variable. The reliability test is an important instrument to measure the degree of consistency of an attribute which is supposed to measure. As stated by Mahon and Yarcheski (2002).The less variation of the instruments produces in repeated measurements of an attribute the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a

measuring tool internal reliability (Hairetal.2003). The reliabilities (Cronbach alphas) were presented in the following table.

Table 1. Cronbach Alphas for Factors Affecting the effectiveness of change management in Hawassa Industrial Park.

No	Factor of effectiveness of change management	Number of item	Cronbach alpha	Remark
1	Change leadership	5	.936	Reliable
2	Communication	5	.937	Reliable
3	Employees engagement	5	.845	Reliable
4	Employees commitment	5	.846	Reliable
5	Employees empowerment	5	.846	Reliable
6	Effectiveness of change management	5	.857	Reliable

Source: Survey Result (2024).

IV. Results and Discussion

4.1 Descriptive analysis

a. Factors affecting the effectiveness of change management

Sample respondents were asked different questions regarding Factors affecting the effectiveness of change management of Hawassa Industrial Park.

b. Descriptive statistics of study variables

Descriptive statistics stands for the conversion of raw data into useful information which can be interpreted to explain a group of dimensions (Brayman&Bell, 2007). The researcher was use all respondents' (n=76) responses from the questionnaire by using SPSS version 23; AMOS and MS Excel 2010) for overall mean computation of each scale items for the variables change leadership, communication factors, employee engagement, employee commitment, employee empowerment related factors.

Table 2. Parameters of Mean.

No	Parameter	Result
1	1-1.8	Strongly Disagree
2	1.81 -2.6	Disagree
3	2.61 – 3.4	Undecided
4	3.41- 4.20	Agree
5	4.21 -5	Strongly Agree

Source: (Best, 1977 as cited in Yonas, 2013).

The summary of descriptive finding shows that poor leadership affects the effectiveness of change management in the study area by grand mean value of (0.9142).The grand mean value for the effect of poor communication is (0.8547). This shows that poor communication strongly affects the effectiveness of change management in the area of the study. In case of employee engagement the grand mean value is 0.8542. This confirms that low employee engagement is the cause of ineffectiveness of change management in the area of study. The finding in employee commitment is the grand mean value of 0.8532. This demonstrates that poor employee's commitment affects change management of the company in the area of study. In case of employee empowerment it has grand mean value of 0.8542. This shows that absence of employee empowerment is cause for ineffectiveness of change management in the area of study.

4.2 Inferential Analysis

In this section, the results of inferential statistics were presented. For the purpose of assessing the objectives of the study, Pearson's product moment correlation coefficient and regression analysis were performed. Pearson's Correlation, Multiple linear regressions and Statistical Equation Modeling(SEM) especially AMOS are the main inferential statistical methods employed in this study to analyze the relationships between independent variable (Effectiveness of change management) and the independent Variables (change leadership, communication, employees commitment, employees engagement and employees empowerment factors.)

a. Factor Analysis

Factor analysis is a class of procedures used for data reduction and summarization factors. Factor analysis is a class of procedures used for data reduction and summarization factors. It is an interdependence technique: no distinction between dependent and independent variables. Factor analysis is used to identify underlying dimensions, or factors, that explain the correlations among a set of variables and addition to use to identify a new, smaller, set of uncorrelated variables to replace the original set of correlated variables.

Table 3. Correlation Matrix by using SPSS

		CHL	CM	EG	CT	EP
Correlation	CHL	1.000	.717	.742	.715	.702
	CM	.717	1.000	.809	.806	.796
	EG	.742	.809	1.000	.858	.810
	CT	.715	.806	.858	1.000	.785
	EP	.702	.796	.810	.785	1.000
Sig. (1-tailed)	CHL		.000	.000	.000	.000
	CM	.000		.000	.000	.000
	EG	.000	.000		.000	.000
	CT	.000	.000	.000		.000
	EP	.000	.000	.000	.000	

Source: (own survey result, 2024).

From correlation perspective the correlation of items to each other greater 0.3 is acceptable (Juile, 2005; Field, 2013). The items under variables of change leadership (CHL), communication (CM), employees' engagement (EG), employees' commitment (CT) and employees' empowerment (EP) are acceptable because of (r>0. 3). That shows almost the variables are appropriate for factor analysis and but still needs further test before the decision. Further test helps to improve the reliability of data. The items like leadership, participatory decision making, and change resistance of leaders, inadequate communication, and bureaucracy of the company, compensation management, employees' performance, and incentives management under the independent variables are acceptable.

b. Test of Kaiser-Meyer- Olkin (KMO) and communalities
Bartlett's test of sphericity should be significant ($p<0.05$) for the factor analysis to be considered.

appropriate and Kaiser Meyer Olkin (KMO)measure of sampling adequacy the value of KMO should be greater than 0.5 if sample is adequate (Hair et al., 2007; Pallant, 2011; Field, 2005; Field, 2013) and to proceed with factor analysis. For current study, the KMO test values for all of the factors was greater than 0.6 and the Bartlett's test was significant ($p=0.000$) as mentioned in table 4.10, indicated that the data were suitable for factor analysis.

Table 4. KMO and Bartlett's Test by using SPSS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.907
Bartlett's Test of Sphericity	Approx. Chi-Square	344.602
	Df	10
	Sig.	.000

Table 5. Total Variance Explained by using SPSS

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	%of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.218	50.778	50.778	14.218	50.778	50.778
2	4.109	14.676	65.454	4.109	14.676	65.454
3	1.629	5.817	71.271	1.629	5.817	71.271
4	1.306	4.665	75.936	1.306	4.665	75.936
5	1.168	4.173	80.110	1.168	4.173	80.110
6	.832	2.970	83.080			
7	.796	2.842	85.922			
8	.612	2.187	88.109			
9	.498	1.777	89.887			
10	.384	1.371	91.257			
11	.362	1.291	92.549			
12	.328	1.172	93.721			
13	.290	1.036	94.756			
14	.230	.820	95.577			
15	.213	.759	96.336			
16	.198	.706	97.042			
17	.157	.561	97.603			
18	.139	.495	98.098			
19	.121	.431	98.529			
20	.095	.340	98.869			
21	.077	.274	99.143			
22	.071	.254	99.398			
23	.051	.181	99.579			
24	.043	.155	99.734			
25	.029	.105	99.839			
26	.022	.077	99.916			
27	.016	.056	99.972			
28	.008	.028	100.000			

Extraction Method: Principal Component Analysis.

Table 6. Communalities by using SPSS

	Raw		Rescaled			
	Initial	Extraction	Initial	Extraction		
CHL	1.629	1.167	1.000	.716		
CM	1.820	1.523	1.000	.837		
EG	1.732	1.510	1.000	.871		
CT	1.818	1.549	1.000	.852		
EP	1.842	1.517	1.000	.824		

Source: (own survey result, 2024).

In the table above the first factor accounts for 50.778 %of the variance, the second factor accounts for 14.676%, the third factor accounts for 5.817%, the fourth factor accounts for 4.665 and the fifth factor accounts 4.173%. Totally 80.110% variance of the variable (ECM) was explained by these 15 items (in five components/groups). All the remaining factors are not significant.

Table 7. Component Matrix

	Raw	Rescaled
	Component	Component
	1	1
CHL	1.080	.846
CM	1.234	.915
EG	1.229	.933
CT	1.244	.923
EP	1.232	.908

Extraction Method: Principal Component

a. Components extracted.

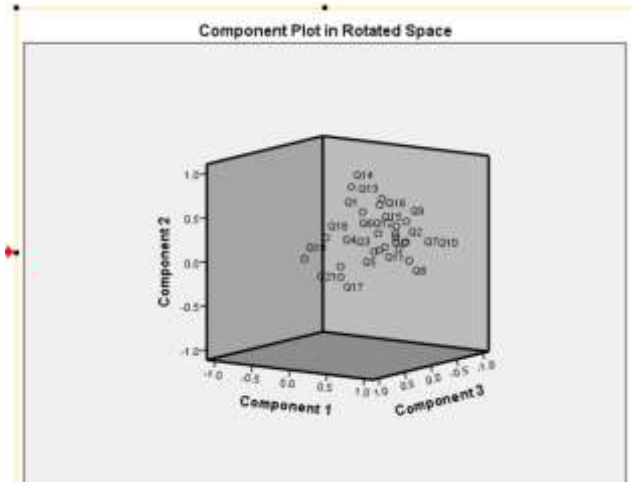

Figure 2. *Components extracted by using AMOS*

The result in the table 8.3 above shoes that shows the loadings of the 15 variables on the five factors extracted (groups) are greater than .5. Therefore, these factors can be used as variables for further analysis. Based on the evidence above the researcher selected communication, change leadership, employees' engagement, employees' commitment and employees' empowerment as independent factors affecting the dependent variable effectiveness of change management in Hawassa Industrial park.

4.2 Model Summary

Table 8. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.827a	.684	.671	.78541

Dependent variable is effectiveness of change management

Source: SPSS V23 data analysis of Survey result, (2024).

Predictors: (Constant), Production Method related Factors, Regulatory Factors, Loan factor, Buyers Related Factors, Infrastructural Factors, Marketing Factor.

Table 8 above shows the estimate of multiple regression of performance against its variables for the sample of 76 employees. The question which states that factors affect that affects the effectiveness of change management is tested at 5% level of significance, it was discovered that the effectiveness of change management was determined by the above factors. Table 4.14 above explained that, the correlation between the observed value of performance and the optimal linear combination of the independent variables (Change leadership Factors, Communication Factors, employee engagement factor, employee commitment Factors, employee empowerment Factors) is 0.827, as indicated by multiple R. Besides, given the R Square value of 0.684, it may be realized that 68.4 % of the variation in performance can be explained by the independent variables. The remaining 31.6% of the variance is explained by other variables not included in this study.

Table 9. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.112	3	32.037	51.936	.000[b]
	Residual	44.414	72	.617		
	Total	140.526	75			

a. Dependent Variable: Effectiveness of change management (ECM)

b. Predictors: (Constant), employees engagement(EG), change leadership(CHL), communication(CM), employees commitment (CT), employees empowerment(EP)

Table 9.2 shows that there is a statistically significant effect between the dependent variable Effectiveness of change management with independent variable (change leadership related Factors, employees engagement Factors, communication factor, employees commitment Factors, employees empowerment Factors. It is evident that the strength of the relationships varies. Thus emphasizing the fact that the dimensions vary in the degree to which they perform their activities well, the value of F statistics 51.936 at 3 and 75 degrees of freedom is statistically significant at 95% confidence level.

a. Model Fit Indices

In the method of structural equation modeling, the measures that assess the compliance of the models with the data are called fit indices or fit statistics. There are many fit indices in the literature. Below there are definitions of the most commonly used of these fit indices, the size of the sample should be considered in the analysis to be done by the structural equation modeling because many of the fit indices are affected by sample size. The minimum sample

size that must be used in the structural equation modeling method is at least 10 times the number of parameters that can be estimated in the model (Jayaram, Kannan, & Tan, 2004).The following table shows the goodness of fit value for indices

Table 10. Good Fit Values

Fit Indices	**Goodness of Fit Values**
CMIN/DF	0 <CMIN/DF< 2
CFI	0,97 < CFI < 1
AGFI	0,90 < AGFI < 1
GFI	0,95 < GFI < 1
NFI	0,95 <NFI< 1
RMSEA	0 < RMSEA < 0,05

Source: Bayram, N. (2013). Yapısal Eşitlik Modellemesine Giriş. Bursa: Ezgi Kitapevi.

Table 11. CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	2.063	2	.356	1.032
Saturated model	15	.000	0		
Independence model	5	356.485	10	.000	35.648

CMIN is the likelihood ratio chi-square test. This test shows the correspondence between the proposed model and the actual model and it is most commonly used fit indices. As a result of this test, it is evaluated whether the covariance matrix of the sample with which the model is tested is equal to the population covariance matrix. Furthermore, since this test is a difference test, it is not desirable that chi-square value is significant. The fact that the CMIN / DF ratio is less than 3 and the chi-square value is insignificant indicates that the model's overall fit is within acceptable limits (Meydan & Şen, 2011).Based on the table value of CMIN/DF is the model significant and acceptable at 1.032.

Table 12. RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.015	.989	.919	.132
Saturated model	.000	1.000		
Independence model	1.108	.294	-.060	.196

The GFI fit indices is a measure of the degree of variance and covariance that is explained by the model. The value of the GFI fit indices rises as the sample size increases. This feature can prevent accurate results when sample size is low. The GFI value ranges from 0 to 1. Values above 0.90 are considered acceptable model indices. Values above 0.90 indicate that covariance is calculated among the observed variables. GFI and AGFI fit indices are based on the residuals (Bayram, 2013). The value in the table show that the model fitness indices at GFI. 989. Based on the Bayram, 2013 scientific ground the value of GFI is accepted.

Table 12. Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.994	971	1.000	999	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	000	.000	000	.000

CFI (Comparative Fit Index) is a fit indices that compares the saturated model with the independent model. In the independent model, there is no relationship among the dimensions that form the research model. CFI values can range from 0 to 1, values above 0.90 and close to 1 show good fit (Schermelleh-Engel, Moos brugger, & Müller, 2003). CFI is in the group of fit indices based on independent models. The value in the table shows that CFI is good fit at (1.000)

Table 13. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.021	.000	.231	.422
Independence model	.680	.620	.741	.000

RMSEA is a measure of fit that compares the mean differences of each expected degree of freedom that can occur in the population with each other. This scale is adversely affected by sample size. A value of 0.05 or less for the RMSEA fit indices indicates good fit (Bayram, 2013). Values between 0.05 and 0.08 indicate acceptable fit (Byrne, 2010). Based on the evidence of table 4.20 REMSEA in the model is not good fit (.680)

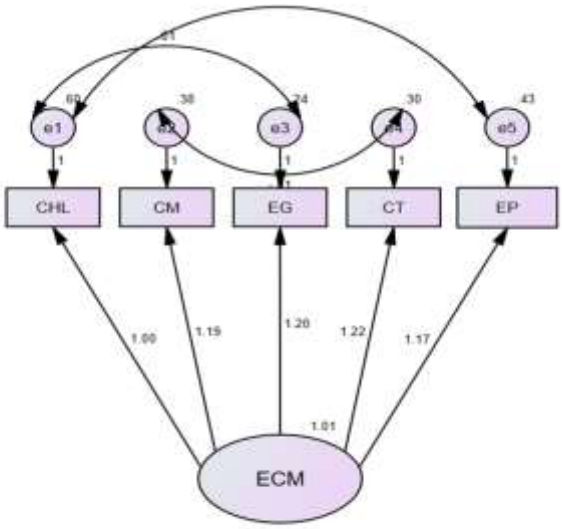

Figure 3. *Structural regression model by AMOS(standardized estimates(r)*

There are five independemnpt variables in the resaerch whchih affect or correlate with depenedent variable effectivenens of change managenently strongly or wealkly and sigignifinatyl or insgignificatly. Under independent five variable there are fithen(15) items. From these items almst all items are recgognized for the resarch is selected tpoict in the specfic study area.

Table 14. Coefficients of Independent Factors

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.136	.280		.485	.000
	CHL	.127	.108	.118	1.176	.000
	CM	.210	.127	.207	1.654	.000
	EG	.184	.150	.177	1.231	.000
	CT	.092	.137	.090	.667	.000
	EP	.340	.122	.337	2.780	.000

a. Dependent Variable: Effectiveness of change management.

Source: SPSS V23 data analysis of Survey result, (2022).

The results of Table 9.6 can be summarized as regression equation given below.

Y = 0. 136+ 0. 188 X1+ 0. 207X2 + 0. 177 X3 + 0. 090 X4 + 0.337 X5

Predicted performance score = 0.313+ .118 (Change leadership) +.207 (communication) + .177 (employees engagement) +.090 (employees commitment) + .337 (employees empowerment)

b. Hypothesis testing

The goal of hypothesis testing is to determine the likelihood that a population parameter, such as the mean, is likely to be true. Here there are two hypotheses: null (H0), and alternative (Ha). The null hypothesis (H0), stated as the null, is a statement about a population parameter, such as the population mean, that is assumed to be true. The null hypothesis is a starting point. The researcher tests whether the value stated in the null hypothesis is likely to be true. The only reason of testing the null hypothesis is because the researcher thinks that it is wrong. An alternative hypothesis (Ha) is a statement that directly contradicts a null hypothesis by stating that the actual value of a population parameter is less than, greater than, or not equal to the value stated in the null hypothesis.

The significance (sig.) value expresses a value to accept or reject the (null) hypotheses. It is also called the p-value. The p-value is the probability that the correlation is one just by chance. Therefore, the smaller the p-value, the better will be. The general rule is: reject H0 if $p < .05$ and accept H0 if $p \geq .05$ (Pallant, 2007).

Hypothesis 1

Ho1: Change leadership has no positive and significant effect on effectiveness of change management in Hawassa Industrial Park

Ha1: Change leadership has a positive and significant effect on effectiveness of change management in Hawassa Industrial Park. If p- value is < 0.05. As it is indicated in table 4.21, the p value is less than 0.05 (at p= .000), the value is highly significant. Thus, we reject the null hypothesis (Ho1) and, instead, accept the alternative hypothesis (Ha1) that: Change leadership has a positive and significant effect on effectiveness of change management in the study area. P-value is 0.00 is less than the cut-off point 0.05. Hence, the null hypothesis is rejected. This implies that: Change leadership has a positive and significant effect on effectiveness of change management in Hawassa Industrial Park.

Hypothesis 2

Ho2: Communication has no positive effect on effectiveness of change management in the study area

Ha2: Communication has a positive effect on effectiveness of change management in the study area hypothesis if p- value is < 0.05. As it is indicated in table 4.21, the p value is less than 0.05 (at p= .000), the value is highly significant. Thus, we reject the null hypothesis (Ho2) and, instead, accept the alternative hypothesis (Ha2) that says communication has a positive effect on effectiveness of change management in the study area in the study area. P-value is 0.00 which is absolutely less the cut-off point 0.05. Hence, the null hypothesis is rejected. This implies that communication has significant effect on effectiveness of change management in the study area.

Hypothesis 3

Ho3: Employee engagement has no positive effect on effectiveness of change management in Hawassa Industrial Park

Ha3: Employee engagement has a positive effect on effectiveness of change management in

Hawassa Industrial Park

Reject the null hypothesis if p- value is < 0.05. As it is indicated in table 4.21, above the p value is less than 0.05 (at p= .000), the value is highly significant. Thus, we reject the null hypothesis (Ho3) and, instead, accept the alternative hypothesis (Ha3) that says employee engagement has a positive effect on effectiveness of change management in the study area. P-value is 0.00 which is absolutely less the cut-off point 0.05. Hence, the null hypothesis is rejected. This implies that employee engagement has significant effect on effectiveness of change management.

Hypothesis 4

Ho4: Employees commitment has no significant effect on effectiveness of change management in Hawassa Industrial Park

Ha4: Employees commitment has a significant effect on effectiveness of change management in Hawassa Industrial Park .Reject the null hypothesis if p- value is < 0.05. As it is indicated in table 4.21, the p value is less than 0.05 (at p= .000), the value is highly significant. Thus, we reject the null hypothesis (Ho4) and, instead, accept the alternative hypothesis (Ha4) that says: employees' commitment has no significant effect on effectiveness of change management in in the study area. P-value is 0.00 which is absolutely less the cut-off point 0.05. Hence, the null hypothesis is rejected. This implies that: employee commitment has no significant effect on effectiveness of change management in Hawassa Industrial Park

Hypothesis 5

Ho5: Employees empowerment has no significant effect on effectiveness of change management

Ha5: Employees empowerment has a significant effect on effectiveness of change management

Reject the null hypothesis if p- value is < 0.05. As it is indicated in table 4.19 the p value is less than 0.05 (at p= .000), the value is highly significant. Thus, we reject the null hypothesis (Ho5) and, accept the alternative hypothesis (Ha5) that says employees' empowerment has a significant effect on effectiveness of change management. P-value is 0.00

which is absolutely less the cut-off point 0.05. Hence, the null hypothesis is rejected. This implies that the employees' empowerment has a statistically significant effect on effectiveness of change management.

V. Conclusion

The General Objective Of This Study Is To Assess The Factors Affecting Effectiveness Of Change Management In Hawassa Industrial Park. During The Investigation The Researcher Used Both Descriptive Analysis And Inferential Statistics And Based On The Findings Of The Research Project The Researcher Made Conclusions By Outlining The Following Points. Regarding Correlation Analyses, the Result of the Finding Shows Appositive and Significant Relationship between Independent Variables and Dependent Variable (Effectiveness of Change Management in Hawassa Industrial Park.). From This It Is Concluded That the Independent Variables I.E. Change Leadership, Communication, Employees' Engagement, Employees' Commitment' Factor, Employees' Empowerment Has Strong Relationship With The Effectiveness Of Change Management In Hawassa Industrial Park.

Furthermore, The Multiple Linear Regression Analysis (The R Square) Implies That About Seventy Five Point Eight Percent (67.1%) Variance Of Effectiveness Of Change Management In Hawassa Industrial Park Is Attributed To Change Leadership, Communication, Employees' Engagement, Employees' Commitment', Employees' Empowerment.

Therefore, The Researcher Can Convincingly Conclude That The Independent Variable Factors Have A Positive And Significant Influence On The Dependent Variable In All Aspects. As Far As The Relative Effects Of An Individual Component Of Factors Affecting The Effectiveness Of Change Management Is Concerned The Result Of Multiple Linear Regression Coefficient Shows That Employee Engagement Factor Has The Highest Beta Value Which Indicates The Most Dominant Effect In Determining The Variation Of The Effectiveness Of Change Management Followed By Employees Empowerment.

The Overall Effectiveness Of Change Management In The Study Is Found To Be Crippling And The Performance Human Capital Are Highly Declining Due To Absence Change Management.

Finally, In Order To Promote These Employees And Supervisors In Terms Of The Effectiveness Of Change Management, The Major Stakeholder (Administrative Staff And Employees) Needs To Work On Collaboration To Improve The Poor Performance Of Change Management Implementation In The Study Area.

Suggestions

One Problem In Change Management Effectiveness Is Absence Of Change Leadership. To Overcome This Problem Leadership Training, Participative Decision Making To Make Leaderful Environment Is The Mostly Needed Practice From The Administrative Staff And Employees At Large. Based On My Findings The Communication Is Inadequate And Searching New Information For Organizational Change Is Weak. Effective Communication Is Significantly Needed From Supervisors And Employees Especially From Permanent Employees. Beside To These The Problem Founded In Study Also Shown That Bureaucracy Of The Company For Employee Participation Hindering Change Management. To Overcome Such Problem, Concerning Bodies Are Expected To Apply Open Door Policy Of

Compensation Management And Employees Are Needed To Participate In Decision Making As Well As Strategic Plan Development. In Addition Absence Of Employee Empowerment And Insufficient Incentives To The Employees Affecting Change Management. In General Hawassa Industrial Park Should Emphasize On Employees' Empowerment As Vital Activity Because Empowered Employees Are Success Power of The Company

Implication for Future Studies

The Findings Of This Study Have Raised Theoretical And Methodological Questions That Need Further Investigation. To This End, The Following Areas For Further Researcher Are Suggested. Since The Study Has Deal About Assessing Factors Affecting The Effectiveness Of Change Management In Hawassa Industrial Park. The Study Covered A Single Industrial Park With Small Number Of Employees And Supervisors. In Addition The Study Focused On Effectiveness Of Change Management Affecting So There Is A Need Of Another Study That Will Focus On Another Factors.

Further The Article On The Potentiality Of The Effectiveness Of Change Management And Other Researchers Are Expected To Conduct Researches In Different Areas With Different Factors And Methods In Selected Topic Of The Researcher Recently.

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