



## The Effect of Managing Change on Academic Performance in Jigawa State Polytechnic Dutse, Nigeria

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### Abstract

*The aims of this study is to investigate the effect of managing change on academic performance in Jigawa State Polytechnic Dutse. The research employ a survey method, data was gathered by the use of a structured questionnaire and was analyzed using Chi-squared method under descriptive statistics which comprise basic percentages, mean, and the standard deviation of the measurement items were the statistical tools employed for the data analysis. A stratified purposive sample consists of 134 academic staff was selected as a research sample. Five point Likert scale was used to measure the study's variables. However, an extensive review of related literature that include concepts, theories and models relevant to the organisational change was also used in the study. The study findings reveals that computerized change introduced by Jigawa State Polytechnic Dutse has significantly enhanced teaching and learning activities for both academic staff and students. The study shows how management of an organization apply change theories, models and co-opts employees in changing their negative attitudes, removing that fear of distrust and resistance to change towards embracing a proposed management change project.*

**Keywords:** Change Approach, Computerization, Unfreezing, Freezing, Academic Activities.

### I. INTRODUCTION

Change is defined as an action or process that brings new things and sharpen the direction and influence the overall goals and system of an organization Tamunomiebi and Enefiok (2021). This definition emphasised that organization that adopt to changes are most likely to survive and overcome competition. Researches shows that 70% of organizational change fails with only 30% success rate due to the fact that new things contradict the

common knowledge and technical know-how of employees (Prokesch, 2009). Most employees developed anxiety and fear on hearing management decision to change, which in turn affect their productivity and performance on job. They go further to have fear on their job security (Silva et al. 2020). This is because, they may likely lose something in their possession without predicting the positive impact of the change to them and the entire organization in the future (Rafferty and Jimmieson 2017). As such, the management of an organization are saddled with the responsibility of removing the fear of unknown and distrust on organizational workers from its proposed change plan.

As business environment is ever changing due to technology and changes is customers fashion, life style, taste and preference, it has become necessary for organizations to embrace changes in order to improve productivity, promote employee performance, as well as changing the behaviour and attitudes of employees and re-enforce organizational values and culture (Leana and Barry, 2000).

### Problem Statement

In Jigawa State today, many parents prefer to send their children to the modern-day higher Institutions with equipped teaching and learning facilities. Quality education goes in line with an organised system of education relevant to the ever changing world. That is why many parents sent their children to neighbouring institutions and the rich among them send their subjects to study abroad. To attract parents/students into Jigawa State Polytechnic Dutse, there is a need for computerized system of learning in all academic activities in the institution.

### Objectives of the Study

- To ascertain the positive outcomes of computerized change on academic performance in Jigawa State Polytechnic Dutse.



- To ascertain the positive outcomes of computerized change on students satisfaction in Jigawa State Polytechnic Dutse.
- To contribute into an existing knowledge of managing change and employee resistance in an organization.

### Statement of Hypothesis

**H<sub>0</sub>:** The academic performance in Jigawa State Polytechnic Dutse does not depends on the computerized change.

**H<sub>1</sub>:** The academic performance in Jigawa State Polytechnic Dutse depends on the computerized change.

**H<sub>0</sub>:** Students satisfaction in Jigawa State Polytechnic Dutse does not depends on the computerized change.

**H<sub>1</sub>:** Students satisfaction in Jigawa State Polytechnic Dutse depends on the computerized change.

## II. Literature Review

Most organizations find it difficult to achieve results and grow by introducing new technology, method or technique due to employee dislike to change (Reiley and Clarkson, 2021). Employees lost interest in their job when routines is maintained over time (Luecke, 2017). It was emphasised that employees contribute best to the overall corporate goals as a result of their interest in new techniques (Burnes, 2009). Scholars and researchers categorised organisational approaches to change in different ways which can be seen below:

### Planned and Emergent Approaches to Change

In Lewin opinion, planned change is used to develop employee's performance and efficiency on the job through syndicate group behaviour (Burnes, 2009). A planned approach is a model required to be used for a successful change programme to enable organisation move gradually from one stage to another (Bullock and Batten, 2015). Planned change approach does not take into consideration certain circumstances that might require urgent attention to some specified change projects. This is because, the

method was unable to offer room for interactive sessions and further discussion with some stakeholders about the change need (Kanter et al., 2012).

Emergent approach to organisational change highlights that people do not perceived change as immovable factor rather a non-stop approach worth accepting and embracing new things happening in certain situations (Dawson, 2014). Burnes (2009) states that emergent change concern with addressing unpredicted change that appeared to be a significant threat to the organisation, unlike planned approach that tried to address predetermine change situations where details design and guidelines are provided.

### Situational and Contingency Change Models

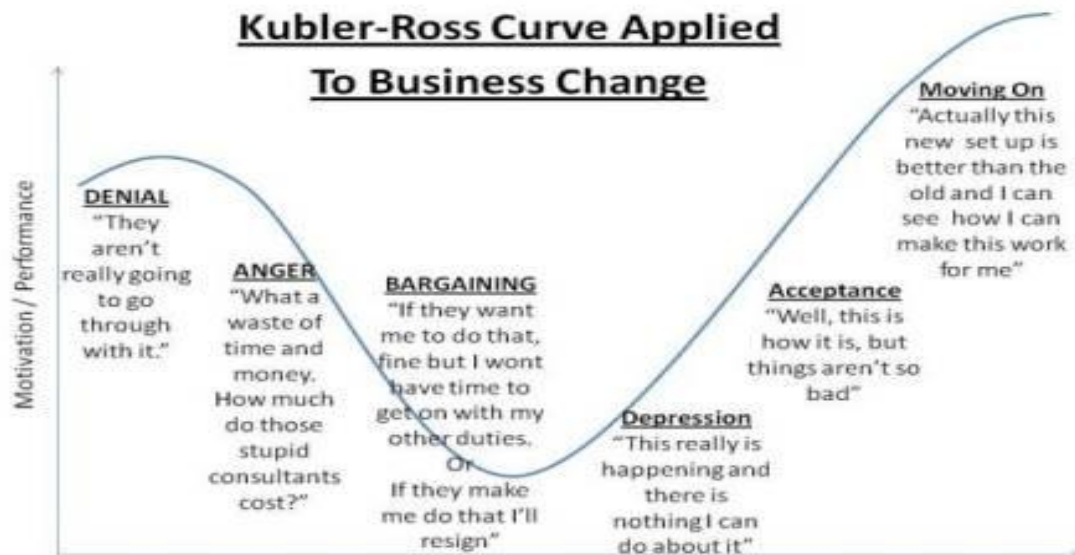
The dissatisfaction of both planned and emergent approaches led to the birth of situational and contingency change models Stance and Dunphy, (2018) whose argues that "situational" or "contingency model" is the most suitable approach needed by managers and their organisations. The approach focused on one's ability to apply various strategies to different situations happening to business dynamics for better results. It was believes that planned and emergent approaches relied on the idea of 'one best way for all'. Whereas, contingency or situational approaches rely on 'one best way for each' hence are the most suitable approaches to organisational change. The contingency approach to organisational change discovered in the theory assumes that practice and routines of corporate body rely on business dynamics 'internal and external variables' (Stance and Dunphy, 2018). It's argued that every organisation has its different forces affecting its operation, unique values and practice and therefore, face different challenges from one another (Stance and Dunphy, 2018).

### Kubler- Ross Change Curve

Studies reveals that, management of organization can use Kubler-Ross change curve (1969) in the cause of implementing organizational change (Burnes, 2009).



Figure 1: Kubler- Ross Change Curve



Source: Kubler- Ross Change Curve, (1969; in Savolainen, 2016)

Denial means some key stakeholders usually opposed the change need. This is because people naturally shows resistance to change. Anger means many stakeholders would usually critique the idea, shows resistance and will try to cripple the change project. Bargaining means management usually try to convince its key personnel, the aims is to convince them to understand the goodness of the change instead of developing negative attitude against the new change. Depression means stakeholders against the change at this stage gave up because all effort to cripple the change project prove aborted. By acceptance means the critics usually agree to support and take an active part in the change process. Whereas moving on means the critics usually begins to appreciate the change project.

### Theoretical Framework

#### Field Theory

This research is backed by Kurt Lewin field theory. Kurt Lewin (1951) suggest that a successful

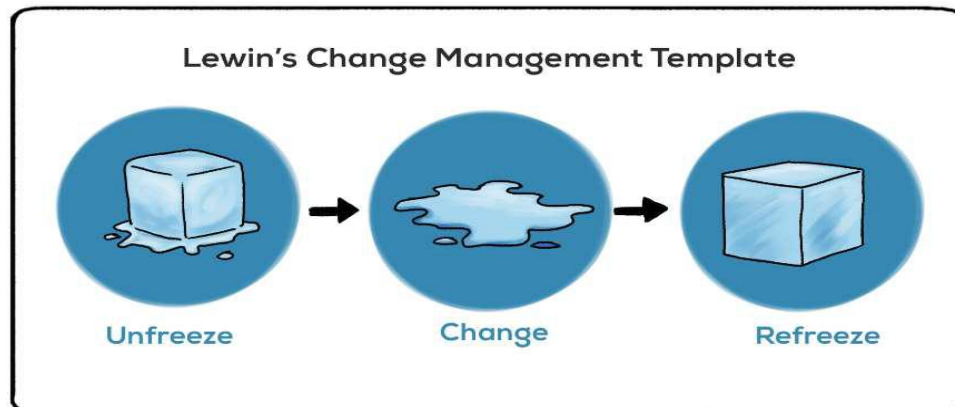
change approach of an organization require a thorough understanding of the group attitudes and behaviours before you are able to carry them along the required change need (Back, 2017).

#### Three Step Model

Kurt Lewin proposed that before a change or new system can be adopted, the initial behaviour should be discarded which involved unfreezing, moving and refreezing and this is called Kurt Lewin's Change Model. Hussain et al. (2018; Bartunek and Woodman 2015; Alas and Sharifi, 2002; in Donal and Nworie, 2022) states that a successful change therefore, involves three steps of unfreezing the present level, changing and moving to the new level and refreezing the new level. This model of change recognises the need to discard old behaviour. Kurt Lewin's Change Model is explain from the diagram below.



Figure 2: Kurt Lewin's Change Model



Source: Donal and Nworie, (2022)

### Empirical Framework

A study conducted by Taber and Yavuz (2022) in Libya and Turkey on employee's perception to change with a sample of 140 at university of Tobruk Libya and 108 sample at university of Kastamonu in Turkey and their findings in both countries reveals that the readiness to change is an essential method in overcoming employee resistance to change as well promote work performances. Moreover, the study confirms that there are statistical differences in the causes of changes and the administrative methods regarding Libya and Turkey.

In a study carried out in Virginia by Coch and French (1948) titled 'Overcoming resistance to change' examined that participation among employees at all level is the most effective method of overcoming organizational employee resistance to change and more ever promote employee performance in an organization. A survey research was conducted by Al-ma'aitah, (2022) on the impact of employee resistance to change on e-governance, innovation and value creation using a sample of 437 government employees in Jordan and the result reveals that employee resistance to change has a major impact on the success of e-government innovation and organizational performance.

A study conducted in Nigeria by Fredrick and Susan (2022) tilted managing employee resistance during organizational change, causes and solutions using a review of previous literature on the subject matter reveals that employee reaction to change depend on the benefits they will enjoy or something they will lose. They support organizational change when they expect gain and oppose it when they have fear of losing something of value such as status, position, power, earning or job. Most of the previous researches conducted focused

on employee resistance to organizational readiness to change but this research centered on the effect of change on employee's performance on job in connection to organizational change approach.

### III. Research Methodology

The study consist of academic staff from all the colleges of Jigawa State Polytechnic Dutse. The population was divided into strata and simple random sampling was use in selecting the research sample. A stratified purposive sample consists of 134 academic staff was selected as a research sample. Looking at the scope of the study, data was gathered by the use of a structured questionnaire. One hundred and fifty (150) questionnaires were issued out of which 134 were returned which represent 89.3% return rate. The research employ a survey method, data was gathered by the use of a structured questionnaire and was analyzed using Chi-squared method under descriptive statistics which comprise basic percentages, mean, and the standard deviation of the measurement items were the statistical tools employed for the data analysis. Five point Likert scale was used to measure the study's variables ranging from (1) strongly agree to (5) strongly disagree to rate each item. To answer the hypothesis as stated in this study, the research used chi-square analysis.

### IV. Research Results

The data collected for this study was presented below and the study findings was also reveals. Tables and other common statistical methods like chi-square analysis and descriptive statistics were used. The Statistical Package for the Social Sciences (SPSS) version 28.0 was employed to assess the reliability and validity of the study instrument and the data analysis.



**Table 1: Demographic Characteristics of the Respondents**

Characteristics	Item	Frequency	Percentage
<b>Gender</b>	Male	121	90.3%
	Female	13	9.7%
<b>Age</b>	18-25	44	32.8%
	26-30	33	24.6%
	31-35	30	22.4%
	36-40	17	12.7%
	Above 40	10	7.5%
<b>College</b>	CBMS	35	26.1%
	CET	17	12.7%
	CEE's	15	11.2%
	CGSD	15	11.2%
	CHS	10	7.5%
	CST	38	28.4%
	CTV's	04	2.9%

**Source:** Field survey, 2024

The table above shows the respondent's gender, age and the colleges they belongs in the research area which include college of business and management studies (CBMS), college of engineering technology (CET), college of environmental and

engineering studies (CEE's), college of general studies and social development (CGSD), college of health science (CHS), college of science and technology (CST), and college of technical and vocational studies (CTV's) respectively.

**Table 2: Does computerized change improve academic performance in Jigawa State Polytechnic Dutse?**

S/N	Measurement item	SA	A	UN	D	SD
1	It exposes academics staff into digital world and or computer orientation.	71 (53%)	41 (30.6%)	04 (3%)	10 (7.5%)	08 (5.9%)
2	It reduces the rate of omission in recording and entry of student's examinations results.	57 (42.5%)	43 (32.1%)	06 (4.5%)	13 (9.7%)	15 (11.2%)
3	It facilitates the release of student's results within 40 days instead of 3 month as obtained from the old system.	56 (41.8%)	53 (39.6%)	03 (2.2%)	12 (8.9%)	10 (7.5%)
4	It facilitates and ease academics routines	65 (48.5%)	54 (40.3%)	04 (3%)	06 (4.5%)	05 (3.7%)
5	It promote efficiency and effectiveness of academics services	57 (42.5%)	52 (38.8%)	06 (4.5%)	10 (7.5%)	09 (6.7%)

**Source:** Field survey, 2024.

The table above shows the respondents opinion on how the computerized change promote academic performance in Jigawa State Polytechnic Dutse despite resistance at the beginning of the change program with highest percentage of scores in line with five point Likert scale.



**Table 3:** Does computerized change promote student’s satisfaction in Jigawa State Polytechnic Dutse?

S/N	Measurement Item	SA	A	UN	D	SD
1	Students know their admission status through personal mobile phones via SMS and emails.	56 (41.8%)	54 (40.3%)	04 (3%)	11 (8.2%)	09 (6.7%)
2	Students receive their semester examination result via personal mobile phones and emails.	58 (43.3%)	52 (38.8%)	06 (4.5%)	10 (7.5%)	08 (5.9%)
3	Students register their semester courses instantly at the Polytechnic ICT directorate.	56 (41.8%)	47 (35.1%)	08 (5.9%)	10 (7.5%)	13 (9.7%)
4	Student admitted into various program find it difficult to change from one program to another.	17 (12.7%)	15 (11.2%)	55 (41%)	26 (19.4%)	21 (15.7%)
5	Most students are unable to complete all section in the admission application procedure due to computer ignorance which makes their application rejected.	22 (16.4%)	25 (18.7%)	31 (23.1%)	28 (20.9%)	28 (20.9%)

Source: Field survey, 2024.

The table above shows the respondents opinion on how computerized change enhanced student’s satisfaction in Jigawa State Polytechnic Dutse despite resistance at the beginning of the change program with highest percentage of scores in line with five point Likert scale.

**Hypothesis Testing**

**H<sub>0</sub>:** The academic performance in Jigawa State Polytechnic Dutse does not depends on the computerized change.

**H<sub>1</sub>:** The academic performance in Jigawa State Polytechnic Dutse depends on the computerized change.

**Table 4:** Chi-Square Result for Hypothesis I

S/N	SA	A	UN	D	SD
1	71	41	04	10	08
2	57	43	06	13	15
3	56	53	03	12	10
4	65	54	04	06	05
5	57	52	06	10	09

Source: Field survey, 2024.

The table above reveals the result of the Chi-square test ( $\chi^2$ ) in the first hypothesis. The value of the Chi-square was 27.92 with a probability value of 0.000 which is less than the traditional significant limit of 0.05. The result shows a significant association between computerized change and academic performance in Jigawa State Polytechnic Dutse.

Mean	Std.Dev	$\chi^2$	Sig.	Df
3.99	0.977	27.92	0.000	4

**Decision:** since Chi-square tests showed a probability valve of 0.000 which is less than 0.05 and going by the level of significant of the test, H<sub>0</sub> is rejected and rejecting it means accepting H<sub>1</sub>. Hence the computerized change significantly promote academic performance in Jigawa State Polytechnic Dutse.

**H<sub>0</sub>:** Students satisfaction in Jigawa State Polytechnic Dutse does not depends on the computerized change.



**H<sub>1</sub>:** Students satisfaction in Jigawa State Polytechnic Dutse depends on the computerized change.

**Table 5:** Chi-Square Result for Hypothesis II

S/N	SA	A	UN	D	SD
1	56	54	04	11	09
2	58	52	06	10	08
3	56	47	08	10	13
4	17	15	55	26	21
5	22	25	31	28	28

**Source:** Field survey, 2024.

Mean	Std.Dev	$\chi^2$	Sig.	Df
4.04	0.023	42.81	0.000	4

The table above reveals the result of the Chi-square test ( $\chi^2$ ) in the second hypothesis. The value of the Chi-square was 42.81 with a probability value of 0.000 which is less than the traditional significant limit of 0.05. The result shows a significant association between computerized change and student's satisfaction in Jigawa State Polytechnic Dutse.

**Decision:** since Chi-square tests showed a probability valve of 0.000 which is less than 0.05 and going by the level of significant of the test, H<sub>0</sub> is rejected and rejecting it means accepting H<sub>1</sub>. Hence the computerized change significantly promote student's satisfaction in Jigawa State Polytechnic Dutse.

## V. Research Findings

The study findings reveals that computerized change introduced by Jigawa State Polytechnic Dutse has significantly enhanced teaching and learning activities for both academic staff and students in connection to Mean 3.99; Std. Dev 977;  $\chi^2$  27.92; P value 0.000 for hypothesis I and Mean 4.04; Std. Dev 023;  $\chi^2$  42.81; P value 0.000 for hypothesis II respectively. This research result is in congruence of with a result of a study conducted by Anshari (2024) using meta-analysis for 37 published journal from SCOPUS, Web of science, Semantic scholar, Google scholar and Open Alexs between 2016 and 2023 which states that digital transformation has a positive and significant influence on organizational performance.

## VI. Conclusion

The change contributes immensely toward expanding the frontier of knowledge of the academics because they were trained and exposed to the application of computer rigor, accessing internet services and other related facilities. The Polytechnic recorded a significant increase of candidates applying into various programmes as a result of the change program.

## VII. Recommendation

The study recommends that for every change desire to take place, management of an organization should remove that fear of unknown and distrust among its employees in order to stimulate and boost their morale towards embracing the new system or technology.

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