Innovations

The Effects of Transactional Leadership Styles on Innovative Work Behavior in Academic Staff Members of Ethiopia Public Universities

Yigermal Gebeyehu Baye (PhD Candidate)
School of Applied Management Punjabi University, Patiala, India

Dr Monita Mago (Assistant Professor)
Punjabi University Center for Emerging and Innovative Technology, Mohali

Corresponding Author: **Yigermal Gebeyehu Baye**

Abstract
Several theories have been proposed to elucidate the impact of transactional leadership on innovative work behavior across diverse cultures, professions, and organizational environments. The researcher investigated the influence of transactional leadership styles /contingent reward, management by exception active, and management by exception passive/ on innovative work behavior. The scholar used aone sample at one time point data collection/cross-sectional research design/quantitative data collection technique. Structural multi-variate equation /CB-SEM/ modeling and AMOS Ver-23 software used for data analysis under the study. In the study (Krejcie & Morgan, 1970), sampling methods had employed to draw an efficient sample size for better representatives of a target population. Subsequently, the researcher used stratified and simple random sampling techniques, and 372 self-administered survey questionnaires were distributed. Among the distributed questionnaires, only 360 of the respondents completed and returned to the researcher for analysis, the other questionnaires were incomplete and uncollectible. Data collection instrument was using procedurally, which comprised of twelve questions relating to the transactional leadership constructs and nine questions relating to innovative work behavior constructs. Moreover, four questions were the respondents' demographic variables. The study contributes an additional understanding of the significant effects of transactional leadership styles/CR and MBEA) on innovative work behavior. The finding revealed that management by exception passive leadership has an insignificant effect on the innovative work behavior of academic staff members in Ethiopia's higher educational institutions. Thus, the study made a novel contribution by unboxing the limited understanding of the effect of transactional leadership styles on innovative work behavior.
Keywords: *Transactional Leadership Styles, Contingent Reward, Management by Exception Active, Management by Exception Passive, Innovative Work Behavior, Higher Education, Ethiopia.*

1. Introduction

Ethiopian higher education system is conservative, patriarchal, and less democratic, showing a far more "slave-to-master" type relationship between the teacher and the students or the leaders and the ones they lead. The academic guidance and contents are copied from Western countries and hence had an impact on the effects of transactional leadership influence on the innovative work behavior in Ethiopia's higher institutions. It appears involuntary in a non-democratic environment where a lack of collegiality, threatened institutional autonomy, and low educational standards result in poor employee morale settings (Article 64 (1) of the federal

democratic republic of Ethiopia /FDRE/ Higher Education Proclamation (650/2009). However, innovative work behavior needs the active involvement of transactional leaders to foster and make strong bonds among employees and a willingness to share knowledge (Udin et al., 2022).

The government of Ethiopia has opened numerous new private and public universities to facilitate education and research in the country. Right now, there are 45 existing universities in Ethiopia, which are divided into four generations (first, second, third and fourth generations).

Leadership is the impactful interaction that takes place within an organization between leaders and followers. It has frequently been proposed as one of the primary variables that inspire employees to engage in creative work practices (Lin et al., 2020)). It is also thought to be the main contextual element that encourages employees to engage in idea generation or the creation of fresh and practical concepts in any field, which is the first step toward individual creativity (Amabile et al., 2014). At the moment, leadership is the other crucial component that significantly affects an organization's success and is vital for innovative work practices. Innovation theory defines inventive work behavior as including not only the act of generating ideas but also the actions required to put those ideas into practice and attain enhancements that increase individual and organizational performance(Messmann & Mulder, 2020)

Innovative work behavior is described as a person's willingness to take the initiative and consciously propose novel and beneficial concepts, methods, processes, or products (West & Altink, 1996). It is evident that creative work behavior and innovative work practices overlap, and the literature on innovation is starting to pay more attention to the application procedures. Innovation usually happens when staff members feel encouraged by their managers to advocate for and advance their ideas (Dahiya & Raghuvanshi, 2022).

Given that workers are the main forces behind organizational innovation, a better grasp of innovative behavior among employees is crucial (Hecker & Ganter, 2014). Previous studies have focused on the roles of leadership styles and innovative work behavior to fill the widening gap between theory and practice. However, these were few and not exhaustively researched and practiced by academic staff members. The results were relevant for higher education practitioners who seek innovative initiatives in their institutions (Hasanefendic et al., 2017). Consequently, by resolving the incomplete understanding of the effect of transactional leadership on innovative work behavior, the findings made a novel contribution (Udin et al., 2022). Because organizational decision-making is frequently owner-dependent, informal, and autocratic, organizations must, therefore, understand the factors that encourage IWB among their employees in order to retain such valuable resources. Leadership is crucial in fostering employees' innovative work behavior (Bligh et al., 2018).

The world is changing quickly; people's habits have changed progressively in recent years, and new technologies are constantly appearing and being absorbed. They require leaders who are not only competent, skilled, and capable but also self-assured in their talents to meet the intended goals and objectives. Because of this, academic staff members at higher education institutions are valuable assets who help the university accomplish its competitiveness goals, which include teaching, researching, and coordinating the needs of the country's development. In addition, companies need leaders who can inspire, motivate, and foster teamwork among their employees (Akram et al.,2016).

Several characteristics define transactional leadership. First, a transactional leader bases agreements on verbal or implicit agreement on goals to meet in order to achieve the desired incentives or behavior on contingent benefits (e.g., work for pay or time off). Second, the transactional leader implements a monitoring program using a management-by-exception structure. This enables them to collect behavioral data in order to anticipate or stop the subordinate from departing the predetermined goals and objectives. Third, transactional leaders are typically inactive and only respond when an issue emerges (Vito et al., 2014).

2. Theoretical Foundation and Hypothesis Development

2.1 Transactional Leadership Theory

The genesis of the debate on modern leadership theory got its start with the writings of (Stogdill, 1948). The trait theory of leadership is the name given to this theoretical effort. This theory basically states that a leader's assertiveness, expertise, extroversion, and decisiveness are among a group of traits and skills that contribute to their effectiveness as a leader (Zaccaro, 2007).

Numerous theories of leadership have surfaced since then. According to leadership theories and transactional principles, relationships between leaders and followers are built on a series of transactions or implicit agreements. Jockeying for positions is a common trait of transactional interactions in many organizations. Rules and regulations dominate transactional-driven organizations. Transactional leadership emphasizes specific task performance in order to focus on lower-level demands (A & Ogbonna, 2013). These leaders are adept at completing particular projects by overseeing each component separately.

Contingent reward, the first component of transactional leadership, defines the degree to which productive exchanges and transactions are established between a leader and their followers. In a contingent compensation system, leaders help people in return for their work and show satisfaction when they succeed in their objectives. (A.M.Algahtany&Bardai, 2019) State that the second dimension, management by exception, explains whether leaders take action to either prevent (active management) or resolve (passive management) issues as they come up.

2.2 Transactional Leadership and Work Innovative Behavior

Despite contingent reward, the management by the exception of active and passive transactional leadership styles, had inconsistent characteristics (Judge & Piccolo, 2004). Contingent transactional leaders use exchanges to match workers' interests with the demands of the company (Penyelidikan, 2006).

(Meldrum, 2010) find a negative relationship in between transactional leadership (CR, MBEA, and MBEP) and innovative work behavior. However, (Boerner et al., 2007) found that there was no relationship between transactional leadership style and employees' innovative work behavior.

Moreover, (Hasija et al., 2019) studied the other extra influential factors that the advancement in technology; firms are striving not just with different leadership styles to improve their employee's efficiency but also trying out new ways to motivate their staff and develop highly talented personnel's & retain them as well.

How ever, (M. et al. et al., 2020) suggested a favorable relationship between IWB and transactional leadership styles. Similarly (De Carvalho et al., 2017) find that transactional leadership is positively related to innovative work behavior. Therefor it is hypothesized that: -

H1: Contingent reward (CR) has a positive significant effect on innovative work behavior (IWB).

H2: Management by exception passive (MBEP) has a positive significant effect on IWB.

H3: Management by exception active has a positive and significant effect on IWB.

3. Conceptual Model of the Study

The conceptual model is essential to show clearly the study variables relationship. In addition, it integrates different ideas and theories to link them with research inquiries. Based on the stated theories and empirical literatures, the researcher had developed conceptual framework, assessment and applications to propose a new model for science and practice(Zeidner et al., 2008).

Therefore, the conceptualized model framed to guide a researcher towards realizing the objectives of the study. Thus, the following hypothesized conceptual framework developed based on the theoretical and empirical premises.

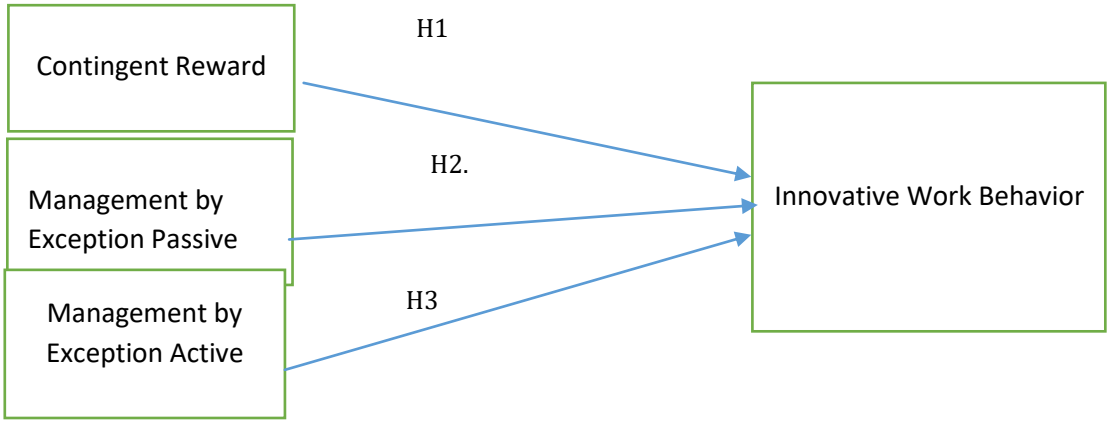

Figure 1 Conceptual Model of the Researchers' Literature survey (2023)

4. Research Methodology, Sampling and Analysis Procedures

4.1 Research Methodology

Since the accessible data and the unknown parts of the problem must be related to one another in order to achieve a potential solution, all of the research methodologies employed by the researcher would have resulted in a solution (C.R. Kothari, 1990).Methodologically, the researcher used a quantitative research method and a single data collection technique, which is called close-ended questionnaire surveying. As part of the data collection the sole emphasis area for data collection was the academic staff of Ethiopian government higher education institutions. In terms of establishment, the investigated region of higher education institutions was divided into four generations: first-generation, second-generation, third-generation, and fourth-generation universities. Out of 37 public higher education institutions, five public universities were chosen to accomplish this study. Eight universities were excluded from the analysis due to their poor operational performance as a result of local conflicts. Accordingly,11,800 populations were used from the sampled universities, and the study was undertaken from the sampled population as of the year 2023.

The researcher used sampling methods (Krejcie & Morgan, 1970) to create a need for an efficient sample size for a better representation of a given population. Accordingly, the researcher used stratified and simple random sampling techniques to collect 372 samples from sampled universities. Subsequently, a self-administered survey questionnaire was used to gather data. As a result, only 360 of the employees completed the surveys and returned to the researcher for analysis; the other questionnaires were incompleteand uncollectible. Then, the data collection instrument was used procedurally, which was comprised of twelve questions relating to the transactional leadership constructs and nine questions relating to innovative work behavior constructs. Moreover, four questions were the respondents' demographic variables.

As the study is a variable-based approach, a positivist philosophical research paradigm was used to investigate the relationship between transactional leadership and innovative work behavior. In line with the positivist

philosophical research paradigm, the deductive approach was used in the study to test the hypotheses related to an existing theory. Then, hypothesis testing and analysis of data were completed. Data were analyzed by using AMOSS version 23 software (Hair Jr. et al., 2014)

4.2 Measures and Scales

4.2.1 Transactional Leadership Style.

Likert-type rating scales are frequently used to measure attitudes, providing a range of responses to a given question or statement. The study variables are measured by transactional leadership items that are taken from earlier research (Hinkin&Schriesheim, 2008). Three components, or dimensions, of transactional leadership were measured using a five-point Likert scale that was modified from the field (Den Hartog et al., 1997). Twelve components and three dimensions make up the latent variable of transactional leadership: contingent reward, management by exception passive, and management by exception active. A sample item for the distributive contingent reward leadership style indicators- provides me with assistance in exchange for my efforts. A sample item for management by exception passive leadership indicators —Fails to interfere until problems become serious. A sample item for management by exception active leadership indicators —Directs my attention toward failure to meet standards. Each item was evaluated by using Burn (1978). This was further modified by Bass (1985), who developed the Multifactor Leadership Questionnaire (MLQ), which was rated a five-point frequency scale. The Multifactor Leadership Questionnaire Comprises twelve items- scales.

4.2.2 Innovative Work Behavior Measures

In a similar view, innovative work behavior metrics were divided into three aspects. (Scott & Bruce, 1994) evaluated this item for each employee's inventive behavior at work. There are nine items in the variable inventive work behavior. There are three sample objects in each dimension. Idea generation, sample items included -which involved coming up with fresh solutions for challenging problems; idea promotion sample items included- rallying support for innovative concepts; and idea realization sample items- involved turning creative concepts into practical applications.

4.3. Control Variables

Previous research revealed that innovative work behavior is influenced by a number of variables, including gender, age, experience, and educational background (Chaudhry & Javed, 2018). It was discovered that innovative work behavior was related to the regulation of all these variables (Bernerth et al., 2018). It is intended for the demographic factors to remain constant. In the current investigation, gender, age, experience, and educational attainment were inferred to be unimportant variables and were left out of the model and not included for further analysis.

4.4 Test of Common Method Bias (CBM)

For all the variables, data were gathered from similar sources, and we used Harman's single factor for confirmatory factor analysis, where all indicators are purposefully loaded on one factor, to determine whether there was any influence of standard method variance in the dataset. According to the results, a single component only accounts for 22% of the variance, which is less than the necessary 50% (Podsakoff et al., 2003). As a result, the business does not have a measure issue. As a result, the data appropriateness for further statistical analysis is verified.

5. Result

5.1 Descriptive Analysis

The demographic profile of respondents comprised (n= 251,69.7%) men and (n=109,30.3%) females. The most dominant age group was found in the age bracket 30-34 years (n= 180,50%). The majority of the respondents with respect to educational qualification represent assistant professors (n=154, 42.8%), followed by respondents who possessed master's degrees (n=122, 33.9%) and Doctorate degrees (n=54, 15%), respectively. The highest percentage of the respondents had been in service for 7 to 10 years of experience in the current organization (n=142,39.4 %). In contrast, respondents whose length of service was less than four years were small in number (n=14, 6.1%), respectively.

Table1-1. Mean, Standard Deviation, and Correlations Among the Study Variable

	Variable	Mean	Standard deviation	1	2	3	4	5	6	7
1	TRLS	3.5640	.70229	1						
2	IWB	3.0386	.55675	.145**	1					
4	Gender	1.3222	.49121	-.046	.078	-.093	1			
5	Age	3.3333	.78637	.080	.231**	.214**	.149**	1		
6	Education	2.8722	.85449	.047	.062	.007	-.034	.308**	1	
7	Experience	4.0139	.82935	.008	.017	.024	.044	.206**	.439**	1

Source: The Researcher Own Survey (2023)

**. Correlation is significant at the <0.000 level (2-tailed).

*. Correlation is significant at the 0.001 level (2-tailed);

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

(Notice, N=360, Gender; 1=for male, 2= for female; Age range ;1=18-20, 2=25-29,3=30-34,4=35-39,5=40-44,6=45-49 ,7=50-54,8=More than 55 years old); and educational level (1=Degree, 2=masters,3=Assistant professor, 4=Docter, 5=Associate Professor,6=Professor.)

5.2. Measurement Model Assessment

5.2.1 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) of the constructs was assessed using the principal component analysis and Varimax rotation as a factor extraction method. The minimum factor loading criteria were set to 0.50. The commonalities of the scale, which indicates the total amount of variance the measured variable had in common with the constructs, were also assessed to ensure an acceptable level of explanation. Also, in EFA, the Eigenvalue represents the amount of variance accounted by a factor. Factors having eigenvalues greater than 1.0 were considered as the criterion for factor extraction (Hair et al., 2014); the items that did not meet the criteria were deleted, and others were retained.

Accordingly, the result depicts the Kaiser—Meyer—Olkin (KMO) score of sampling adequacy as 0.859, which is above the minimum threshold value of 0.50 (Hair Jr. et al., 2014). The six dimensions explained a total of 74.19 of the variances among items in the study. Bartlett's Test of Sphericity was also found to be highly significant at p=0.000 value. Lastly, commonalities were over the required values of 0.50. Therefore, this study is congruent with the six dimensions identified as part of the EFA with the theoretical propositions.

5.2.2. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was applied using AMOS Ver-23 to assess the psychometric properties of the latent constructs. (Becker et al., 2012) Elucidated that the first-order CFA is named as a lower-order construct that is constituted by its dimensions of first-order latent constructs. As the study by Hair et al. (2014), factor loadings greater than 0.50 are better for explaining unobserved constructs in the study. Thus, as part of confirmatory factor analysis, the researcher assessed factor loadings for each item once the variables were validated through EFA. Therefore, only one item was removed due to low factor loadings and cross-loadings.

To assess the model's goodness of fit, multiple fit indices were applied including the Model Chi-Square Test (CMIN/df), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Incremental Fit Index (IFI), Standardized Root Mean Square Residual (SRMR) and Root Mean Square Error of Approximation (RMSEA) and all the fit indices values were felt within the acceptable range ((Sahoo, 2019)). These particular measurement indices were focused on due to their insensitivity to sample size and misleading parameter estimates (Kline, 2013).

Measurement model- the CFA procedure analysis of standard factor analysis for six latent factors, viz., (contingent reward, management by exception active, management by exception passive) and idea generation, idea promotion, and idea realization of (IWB) were undertaken to depict whether these factors represent their respective measurement items.

Table1-2 Fitness Indices of measurement Model

Model	CMIN	DF	P	CMIN/DF	SRMSEA	SRMR	IFI	TLI	CFI
Default model	278.808	164	.000	1.700	.044	.0535	.966	.960	.965

Source: Researcher's Own Survey (2023)

The three-factor model, as it is portrayed in Figure 1-1, Contingent reward, management by exception passive, management by exception active, and innovative work behavior, shows that the data fit the measurement model very well. Thus, the value of CMIN/df is 1.700, which lies below the threshold of 5 (Meldrum, 2010). Further, the comparative Fit Index (CFI), Tucker Lewis Index (TLI), and Incremental Fit Index (IFI) values are 0.966, 0.960, and 0.965, respectively, which is above the acceptable threshold of 0.9 value.

Lastly, Standardized Root Mean Square Residual (SRMR) and Root Mean Square Error of Approximation (RMSEA) values are SRMR = .0535 and RMSEA =.044, respectively, which is lower than the suggested required value of 0.08 ((Hu & Bentler, 1999)). Therefore, these good fit values of the measurement model provide a basis for testing the study hypotheses in the next section.

5.3 Instrument Validity and Reliability

5.3.1 Instrument Validity and Reliability Construct

Reliability was assessed using the two most commonly used methods for establishing reliability. These include Cronbach's alpha and composite reliability (CR). The Cronbach's alpha for each construct in the study ranged from 0.799 to 0.881, whereas composite reliability ranged from 0.703 to 0.880. Both indicators of reliability were found above the required limit of 0.7 (Hair et al., 2014). Hence, construct reliability is established. Convergent validity of scale items was checked using Average Variance Extracted (AVE), and it was above the minimum threshold of 0.5 value.

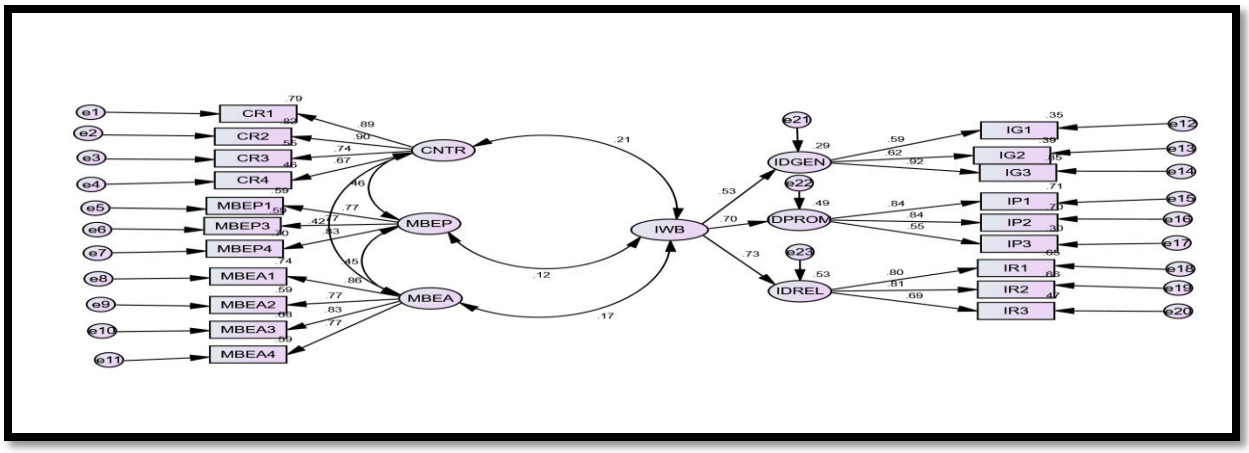

Figure 1-2Structural Equation Measurement Model

Table 1- 3: Loadings, Reliability, and Convergent Validity

	Standardize Loadings	Cronbach alpha (CA)	Composite Reliability (CR)	Average Variance extracted (AVE)
Contingent Reward		0.879	0.88	0.651
CR1	0.894			
CR2	0.909			
CR3	0.733			
CR4	0.665			
Management by exception passive		0.831	0.833	0.625
MPEP1	0.769			
MBEP2	0.836			
MBEP3	0.765			
Management by exception Active		0.881	0.875	0.638
MBEA1	0.832			
MBEA2	0.73			
MBEA3	0.848			
MBEA4	0.782			
Innovative Work Behavior		0.799	0.703	0.503
IDPROM	0.567			
IDREL	0.835			
IDGEN	0.543			
IP1	0.738			
Ip2	0.94			

IP3	0.555			
IR1	0.761			
IR2	0.87			
IR3	0.696			
IG1	0.602			
IG2	0.675			
IG3	0.778			

Source: Researcher's Own Survey (2023)

In the study, discriminant validity was assessed using the Fornell and Larcker criteria. Accordingly, discriminant validity is established when the square root of AVE for the construct is higher than the correlation between the associated variables in the study (Algebra et al., 1981). In this study, the square root of AVE for a construct was found to be greater than its correlation with other constructs. Hence, the discriminant validity is not an issue in this study. The result of discriminant validity is presented in Table 1-4 below.

Table 1- 4: Discriminant validity Measurement Model

Construct	CR	AVE	MSV	MaxR(H)	MBEP	MBEA	CNTR	IWB
MBEP	0.833	0.625	0.207	0.838	0.790			
MBEA	0.882	0.652	0.202	0.888	0.450***	0.807		
CNTR	0.881	0.652	0.207	0.910	0.455***	0.421***	0.808	
IWB	0.702	0.533	0.044	0.711	0.116	0.166*	0.209**	0.658

Source: Researcher's Own Survey (2023)

* CNTR-Contingent Reward; MBEP-Management by Exception Passive; MBEA-Management by Exception Active; IWB-Innovative Work Behavior. Significance of correlation *** $p < 0.000$, ** $p < 0.001$, * $p < 0.01$.

5.4 Path Analysis and Hypothesis Testing

Once the validity and reliability of the measurement model are established, the next step is to test the hypothesized relationship by using the Bootstrapping algorithm and then testing the structural path coefficients and their statistical significance using the AMOS graphical approach with the maximum likelihood estimation method of SEM.

Hypothesis (H1): Contingent reward (CR) has a positive significant effect on innovative work behavior (IWB).

Hypothesis (H2): Management by exception passive (MBEP) has a positive significant effect on IWB.

Hypothesis (H3): Management by exception active has a positive significant effect on IWB.

In the hypothesis testing of the study, transactional leadership style was considered as a first-order construct, whereas innovative work behavior was considered as a second-order construct. The path for this hypothesis is presented below.

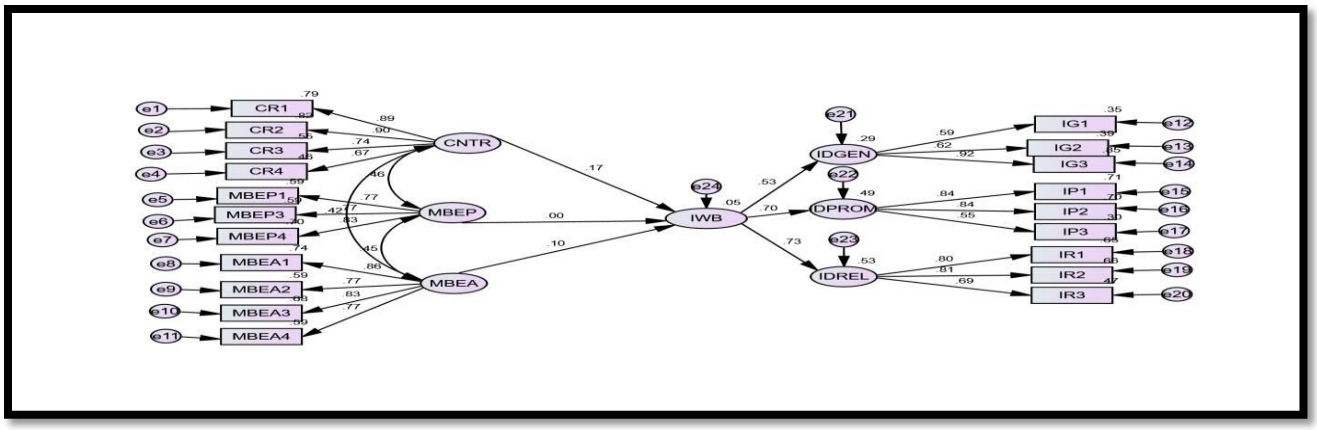

Figure3.Structural Equation Path Model

*As shown in the figure, the overall R-square value of the transactional leadership styles (MBEP, MBEA, and CR) is .05, Which is in the lower range of empirical modeling for social science research (Ozili, 2022). Therefore, the overall direct influence level of transactional leadership styles on the innovative work behavior in the model is not more substantial.

Table 1-5: Summary of the Direct Effect Path Model Estimates.

Constructs	Path	Constructs	Estimate	C.R.	P	Decision
IWB	<---	CNTR	.350	2.071	.038	Significant
IWB	<---	MBEP	.274	.404	.686	Not significant
IWB	<---	MBEA	.302	1.984	.029	Significant

Source: Researcher's Own Survey (2023)

- CNTR-Contingent Reward; MBEA-management by exception active; Management by Exception passive IWB-innovative work behavior. Significant Correlation * p <.020, *p<.029 and p<.686 (not significant)

6. Discussion

The central focus of the study was to investigate the effects of transactional leadership styles on innovative work Behavior in Ethiopian higher education institutions. The findings depicted and presented in the analysis part are stated here as a discussion in connotation with previous studies. Accordingly, management by exception passive had no significant effect on innovative work behavior (β = .274, t =0 .404, P <.686). Therefore, the result does not support the hypothesis and it is called type two error. It is notable that any change in management by exception passive did not have any influence on innovative work behavior. That is, when management by exception passive leadership style is a change in one unit, the innovative work behavior will not be changed and this finding is consistent with the study of (Boerner et al., 2007).

Under the transactional leadership style, the finding suggested that management by exception active leadership style had a positive significant effect on innovative work behavior (β =.350, t=2.335, P < 0.020). The path in Figure 3 indicates that 10% of the innovative work behavior could be estimated by using the overall MBEA transactional leadership style. That is, when the management by exception active leadership style is changed in one unit, the innovative work behavior has been improved by 10 percent.

The standardized analysis output of the model of the path coefficient of management by exception active leadership is β=.302, t = 1.984, P =.029), which indicates for a unit increase in MBEA, 10 units will increase IWB and this value is significant which implies the probability of getting a critical ratio 1.984 in absolute value is greater than +1.96 that indicates the beta coefficient of MBEA in predicting innovative work behavior is significant at a point where p = 0.029. In other words, the regression weight for MBEA in the prediction of IWB is significantly different from zero at p< 0.001. This shows that whenever there is a change in MBEA, the innovative work behavior will be significantly affected. Therefore, the research hypothesis that MBEA of the transactional leadership style has a significant effect on innovative work behavior supports the premises. The finding, management by exception active leadership style, is congruent with the study of (Khan et al., 2012) and (De Carvalho et al., 2017) that suggested a positive relationship between transactional leadership
and innovative work behavior.

Similarly, under the transactional leadership style, the finding showed that the contingent reward leadership style had
positive significant effect on innovative work behavior (β = .350, t=2.335, P < 0.020). The path in Figure 3 indicates that 17% of the innovative work behavior could be estimated by using the overall dimensions of transactional leadership style. Thus, when the contingent reward leadership style is changed in one unit, the innovative work behavior is improved by 17 units, which could be estimated by using the overall contingent reward construct. That is, when the contingent reward leadership style is changed in one unit, the innovative work behavior will be improved by 17 units at the standardized analysis of the output in the model of the path coefficient of contingent reward leadership (t =2.064, P =.039). This value is significant, which implies the probability of getting a critical ratio of 2 .064 in absolute value is greater than +1.96, which indicates the beta coefficient of contingent reward leadership style in predicting innovative work behavior is significant at a point where p = 0.039. In other words, the regression weight for contingent reward leadership style in the prediction of IWB is significantly different from zero at a value of p< 0.001. This shows that whenever there is a change in contingent reward leadership style, the innovative work behavior will be significantly affected. Therefore, the research hypothesis that the contingent reward leadership style of transactional leadership has a significant effect on innovative work behavior and hence supports the premises.

Likewise, the finding consisted with the study of(M. A. Khan et al., 2020) and De Carvalho et al. (2017), which suggested favorable relationships between transactional leadership and innovative work behavior. To the end, MBEP leadership is not recommended to apply in Ethiopian higher institutions for effectively motivating the innovativeness of academic employees. Therefore, higher public, academic institutions shall employ other leadership styles to satisfy the transactional requirement of the academic staff and for the purpose of inspiring their innovative work aspiration. However, it is noted that the overall squared multiple correlation of performance of the transactional leadership dimensions was 5%; since the value of the squared multiple correlation was low and below 10%, which means overall transactional leadership styles weakly explained the variance in the innovative work behavior of the study (Ozili, 2022).

7. Theoretical Contribution and Practical Implications

7.1 Theoretical Contribution

Academic evaluation helps in examining recent theoretical breakthroughs in the study of educational leadership in higher education management, and this study will have implications for leadership's critical position in the innovation process. It starts with a brief summary of the definition of research theory and the idea of leadership. It will maintain a common element of several leadership models and organizational structures, as well as contribute to the innovative ideas and application of management transactional theories (Amanchukwu et al., 2015).

When someone initiates contact with others with the intention of exchanging something valuable, that is known as transactional leadership; in other words, "leaders approach followers with an eye towards exchanging (Russell, 1985). The study contributes to the emphasis on management theories concerning follower-leader interactions as well as organizational theory, work innovation, and supervision. According to this theoretical framework, it is the duty of leaders to create systems that clearly explain to followers what is expected of them and the rewards and penalties that will be imposed upon them for meeting or failing to achieve these expectations. That is, when employees are fruitful, they are rewarded; when they fail, they are punished ((Taiwo, 2013).

The study contributes novel insights to the literature regarding the relations of overall transactional leadership styles (contingent reward, Management by exception active and management by exception passive leadership styles) and innovative work behavior with a higher understanding of the impact of transactional leadership on innovative work behavior in Ethiopian higher institutions academic context settings.

7.2 Practical Implication

This study has imperative management implications for Ethiopian higher education institutions. First, this study may serve as an input to provide clues to human resource departments for formulations of higher institution leadership policies and guidelines in enhancing academic staff members' desire for work innovative Behavior. These can inspire employee performance and smooth functioning of the universities. Second, the result of this study revealed that transactional leadership plays a vital role in regulating the work innovative behavior relationship of employees. Thus, attention should be given to transactional leadership styles and employee innovative work behavior that contribute to the universities in particular and to the country in general.

1. Limitation and Future Research Suggestions.

To the best of the authors' knowledge, the study looked at ways to encourage innovative work behavior on an individual basis in the public sector. As such, a number of limitations should be taken into consideration when interpreting the study's conclusions. First, the study's conclusions could be compromised because the data was gathered from the same source utilizing a self-administered, closed-ended questionnaire.

Second, the study used a cross-sectional research approach. However, it's better if a longitudinal research design is used to see perceptual differences in employees' dynamic Behavior and work innovativeness of the universities in collecting data through different periods. According to earlier research, there were scantly studies on the relation between innovative work behavior and transactional leadership styles. Subsequent researchers might look into this and suggest generally accepted research in the future in order to broaden the theories regarding what supports or inhibits innovative individual Behavior in public universities.

Third, the study's technique was entirely quantitative. As a result, qualitative data for triangulation may be taken into account in future studies.

Fourth, it is difficult to generalize the study because the study is geographically limited to Ethiopian higher education institutions only. Consequently, more research could be examined and dispersed to a different range of circumstances and areas. Therefore, future studies may examine additional crucial elements, such as the

innovative Behavior of specific higher education institutions that transactional leadership may impact, and they may also broaden the scope of current ideas about the elements that support or undermine innovative Behavior in public universities(Mutonyi et al., 2020).

2. The Benefits of the Study

Theoretically, the Ethiopian government focuses on the country's education system and providing the necessary skills to young people so that they can become viable workers and innovators of tomorrow.

The finding is mostly essential for higher institution practitioners. On this ground, the study will help to shape policies and encourage innovative work practices in higher educational institutions in the future. The investigation can make a unique contribution by expanding our limited knowledge of transactional leadership's effect on innovative work behavior.

Generally, the study has shown the implications of transactional leadership on innovative work behavior for policymakers and innovators, specifically for inspiring innovative work behavior among higher education academic members.

It provides a set of research guidelines and can be used as a stepping stone for other future researchers. Therefore, future scholars ought to use different approaches to analyze the leaders' and teachers' innovative work behavior. In the end, the finding of transactional leadership style (MBEA and Contingent reward) recommends to apply in that Ethiopian Higher education institutions academic staff employees practice innovative work behavior, especially for those higher education public institutions.

- **Declarations**

I, Yigermal Gebeyehu Baye, certify that the work embodied in the manuscript is my bona fide work which is carried out by me under the supervision of Dr Monita Kuar, Assistant Professor at Punjabi University, Department of Applied Management.

It is noted that there are no financial and non-financial conflicting interests and relationships under this manuscript work.

I declare that I have faithfully acknowledged, given credit, and referred to the research workers wherever their works have been cited in the body of my manuscript. I certify that I have not willfully liked up some others' work, para, text, data, results, and any reports in the journals, books, magazines, reports, dissertations, thesis, etc. I declared that I have adhered to all principles of the academic honesty and integrity and have not misrepresented, fabricated, or falsified any idea, data, fact, or source in my manuscript submission. I understand that any violation of the above statement will be cause for disciplinary action by the Academic institution.

- **Data Availability Statement**

Data will be available as per your request but will not include the details of the specific author or contact details in the anonymized version of the manuscript. The data that support the findings of this study are available in the hands of the corresponding author. The data is primary, openly available, due to restrictions, such as their containing information that could compromise the privacy of the researcher. Therefore, the author will be able to attach to your link whenever you need.

Reference

1. *A.M.Algahtany, M., & Bardai, B. (2019). Quality Attention/ Contingent Reward and Leadership Styles (Transformational / Transactional). International Journal of Economics and Management Studies, 6(2), 57–81.*
2. *A, O. J., & Ogbonna, I. G. (2013). Transformational_vs._Transactional_Leade.pdf. International Review of Management and Business Research, 2(1), 355–361.*
3. *Akram, T., Lei, S., & Haider, M. J. (2016). The impact of relational leadership on employee innovative work behavior in IT industry of China. Arab Economic and Business Journal, 11(2), 153–161.*
4. *Algebra, T. H. E., Factor, O. F., & Modeling, S. (1981). Erratum: Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research, 18(4), 427.*
5. *Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (2014). Assessing the Work Environment for Creativity Assessing The Work Environment For Creativity University of Michigan University of Southern California. 39(5), 1154–1184.*
6. *Amanchukwu, R. N., Stanley, G. J., & Ololube, N. P. (2015). A Review of Leadership Theories, Principles and Styles and Their Relevance to Educational Management. Management, 5(1), 6–14.*
7. *Becker, J. M., Klein, K., & Wetzels, M. (2012). Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models. Long Range Planning, 45(5–6), 359–394.*
8. *Bernerth, J. B., Cole, M. S., Taylor, E. C., & Walker, H. J. (2018). Control Variables in Leadership Research: A Qualitative and Quantitative Review. Journal of Management, 44(1), 131–160.*
9. *Bligh, M. C., Kohles, J. C., & Yan, Q. (2018). Leading and Learning to Change: The Role of Leadership Style and Mindset in Error Learning and Organizational Change. Journal of Change Management, 18(2), 116–141.*
10. *Boerner, S., Eisenbeiss, S. A., & Griesser, D. (2007). Follower Behavior and Organizational Performance: The Impact of Transformational Leaders. Journal of Leadership & Organizational Studies, 13(3), 15–26.*
11. *Burn 1978. (1978). Satisfaction, The Relation ship between Transformational Leadership and Behaviors Of Atheletics Directors and Coaches job.*
12. *C.R. Kothari. (1990). Research Methods &Techniques (Second Rev). New Age International (P) Limited, Publishers.*
13. *Chaudhry, A. Q., & Javed, H. (2018). The Impact Of Transformations And Transactional Leadership Styles On The Motivation Of Employees In Pakistan Author (S): Abdul Qayyum Chaudhry , Husnain Javed and MUNAWAR SABIR Source : Pakistan Economic and Social Review , Vol . 50 , No . 2 (Winter 20. Pakistan Economic and Social Review, 50(2), 223–231.*
14. *Dahiya, R., & Raghuvanshi, J. (2022). Validation of innovative work behaviour scale: Indian apparel manufacturing sector. Asia Pacific Management Review, 27(2), 120–136.*
15. *De Carvalho, G. D. G., Cruz, J. A. W., De Carvalho, H. G., Duclós, L. C., & De Fátima Stankowitz, R. (2017). Innovativeness measures: A bibliometric review and a classification proposal. International Journal of Innovation Science, 9(1), 81–101.*
16. *Den Hartog, D. N., Van Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. Journal of Occupational and Organizational Psychology, 70(1), 19–34.*
17. *Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26(2), 106–121.*
18. *Hair Jr., J. F., Gabriel, M. L. D. da S., & Patel, V. K. (2014). Modelagem de Equações Estruturais Baseada em Covariância (CB-SEM) com o AMOS: Orientações sobre a sua aplicação como uma Ferramenta de Pesquisa de Marketing. Revista Brasileira de Marketing, 13(2), 44–55.*
19. *Hasanefendic, S., Birkholz, J. M., Horta, H., & van der Sijde, P. (2017). Individuals in action: bringing about*

innovation in higher education. European Journal of Higher Education, 7(2), 101–119.

20. *Hasija, K. G., Hyde, A. M., & Kushwaha, V. S. (2019). A Study of Management by Exception: Active, Passive & Laissez-faire Leadership Style of Leaders in B School. International Bulletin of Management and Economics, 6(2349), 151–161.*
21. *Hecker, A., & Ganter, A. (2014). Path and past dependence of firm innovation. Economics of Innovation and New Technology, 23(5–6), 563–583.*
22. *Hinkin, T. R., & Schriesheim, C. A. (2008). A theoretical and empirical examination of the transactional and non-leadership dimensions of the Multifactor Leadership Questionnaire (MLQ). Leadership Quarterly, 19(5), 501–513.*
23. *Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1–55.*
24. *Judge, T. A., & Piccol, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. Journal of Applied Psychology, 89(5), 755–768.*
25. *Khan, M. A., Ismail, F. B., Hussain, A., & Alghazali, B. (2020). The Interplay of Leadership Styles, Innovative Work Behavior, Organizational Culture, and Organizational Citizenship Behavior. SAGE Open, 10(1).*
26. *Khan, M. M., Mubarak, S., & Islam, T. (2020). Leading the innovation: role of trust and job crafting as sequential mediators relating servant leadership and innovative work behavior. European Journal of Innovation Management.*
27. *Kline, R. B. (2013). Assessing statistical aspects of test fairness with structural equation modelling. Educational Research and Evaluation, 19(2–3), 204–222.*
28. *Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement, 30(3), 607–610.*
29. *Lin, C. P., Huang, H. T., & Huang, T. Y. (2020). The effects of responsible leadership and knowledge sharing on job performance among knowledge workers. Personnel Review, 49(9), 1879–1896.*
30. *Meldrum, K. (2010). Structural Equation Modelling : Tips for Getting Started with Your Research. Contemporary Approaches to Research in Mathematics, Science, Health and Environmental Education, 1–6.*
31. *Messmann, G., & Mulder, R. H. (2020). A short measure of innovative work behaviour as a dynamic, context-bound construct. International Journal of Manpower, 41(8), 1251–1267.*
32. *Mutonyi, B. R., Slåtten, T., & Lien, G. (2020). Empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector: empirical evidence from Norway. International Journal of Public Leadership, 16(2), 175–197.*
33. *Ozili, P. K. (2022). The Acceptable R-Square in Empirical Modelling for Social Science Research. SSRN Electronic Journal, January 2022.*
34. *Penyelidikan, J. (2006). Sample Size Estimation Using Krejcie And Morgan And Cohen Statistical Power Analysis: A Comparison Chua Lee Chuan Jabatan Penyelidikan. Jurnal Penyelidikan Ipbl, 7, 78–86.*
35. *Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. Journal of Applied Psychology, 88(5), 879–903.*
36. *Sahoo, M. (2019). Structural Equation Modeling: Threshold Criteria for Assessing Model Fit. Methodological Issues in Management Research: Advances, Challenges, and the Way Ahead, 269–276.*
37. *Scott, S. G., & Bruce, R. A. (1994). Determinants of Innovative Behavior : A Path Model of Individual Innovation in the Workplace Author (s): Susanne G . Scott and Reginald A . Bruce Published by : Academy of Management Stable URL : www.jstor.org References Linked refe. The Academy of Management Journal, 37(3), 580–607.*
38. *Stogdill, R. M. (1948). Personal factors associated with leadership; a survey of the literature. The Journal of*

Psychology, 25, 35–71.

39. *Udin, U., Dananjoyo, R., & Isalman, I. (2022). Transactional Leadership and Innovative Work Behavior: Testing the Mediation Role of Knowledge Sharing in Distribution Market. Journal of Distribution Science, 20(1), 41–53.*
40. *Vito, G. F., Vito, G. F., & Higgins, G. E. (2014). Transactional and transformational leadership: An examination of the leadership challenge model. Policing, 37(4), 809–822.*
41. *West, M. A., & Altink, W. M. M. (1996). Innovation at work: Individual, group, organizational, and socio-historical perspectives. European Journal of Work and Organizational Psychology, 5(1), 3–11.*
42. *Zeidner, M., Roberts, R. D., & Matthews, G. (2008). The science of emotional intelligence: Current consensus and controversies. European Psychologist, 13(1), 64–78.*