# THE INFLUENCE OF TRANSACTIONAL LEADERSHIP ON INNOVATIVE WORK BEHAVIOR-A MEDIATION MODEL

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## ABSTRACT

Highly turbulent business environment and fierce competition along with globalization have increased the competitiveness of the organizational world. Innovation originates with change and contributes towards the competitive edge. Every new idea originates in the minds of individuals which ultimately contribute to overall organizational innovation. The leader serves as a catalyst in bringing and nurturing innovation at individual, team and overall organization level. This study aimed to enrich and bridge the inconsistencies in the extant literature for transactional leadership and innovative work behavior first directly and then through mediating role of intrinsic motivation. Random sampling employed to collect data from 260 middle managers from the Power Sector of Pakistan. Partial least squares structural equation modeling (PLS-SEM) is employed to analyze the relations among constructs by using Smart-PLS 3. Findings of the study reveal that Transactional Leadership (TSL) has a direct positive relationship with Innovative Work Behavior (IWB). In addition, Intrinsic Motivation partially mediates the positive relationship of TSL with IWB. A comprehensive discussion on the results, practical implications, research limitations and directions for the future research are presented.

**Keywords:** Transactional Leadership (TSL), Innovative Work Behavior (IWB), Intrinsic Motivation (IM), Power Sector of Pakistan

## 1. Introduction

Highly turbulent business environment and fierce competition along with globalization have increased the competitiveness of the organizational world. Capability to be innovative has become a key source for organizational successes. Extant literature reveals that innovation is one of the significant drivers for the competitive edge of organizations [1, 2]. The fact that innovation is essential for an organization to survive, in this turbulent environment, has transformed into a broadly acknowledged phenomenon [3]. Consequently, today the main focus of organizations is on exploring all those aspects that can augment the innovative behavior of employees [4]. Every new idea, primarily, originates in the minds of individuals, thus, compelling organizations to strive for more and more creative and innovative workforce. In the same vein, innovative work behavior (IWB) appears as an important concept for strategic long-term survival and competitiveness of the organizations [5, 6], making innovative employees as a key asset [7].

The leader serves as a catalyst in bringing and nurturing innovation at individual, team and overall organization level.  The role of leadership has increased many folds to foster innovativeness in their organizations [8-10]. Transformational (TFL) and Transactional (TSL) leadership styles are most widely known constructs of the full range leadership theory [11] which have effects wide range of organizational outcomes [12]. Transactional Leadership style (TSL) entails a relationship where a leader rewards the subordinates by their rendered services and the terms of agreement [13]. In its comparison with transformational leadership (TFL), transactional leadership (TSL) received the least attention of researchers and academicians. Recurrently, TSL was investigated in its comparison with transformational leadership (TFL) regarding employee or organizational outcomes. Surprisingly, authors remained unable even to find a single study solely investigating the influence of transactional leadership style (TSL) on innovative work behavior (IWB) of the employees.

Even the available findings, in the extant literature, are highly contradictory. Some found positive [14] while others have proved negative [15] besides those who even did not find any relationship at all [16]. Hence, these inconsistencies of results lead to anticipate that there could be additional factors which influenced the relationship of TSL with IWB. Hence, there is still a significant gap for future research to identify those mediators and moderators variables of TSL and IWB relationship. The same thought was reinforced by [17] to explore those variables which can be helpful in understanding the said relationship with more precision.

Employee motivation is the composing element of creativity and innovation. Literature has divided the concept of motivation into two types known as intrinsic motivation and extrinsic motivation [18]. Wherein, intrinsic motivation is derived from the work itself while extrinsic motivation is based on the intention to achieve positive consequences. Thus, prima-facie, intrinsic motivation seems more positively related to innovative work behavior than extrinsic motivation. Nonetheless, there are studies which considered both intrinsic motivation and external rewards relate positively with innovative work behavior [19]. Most recently, [20] argued that increase in creativity of the employees, in the presence of rewards, to some extant can be attributed to an increased intrinsic motivation for creativity.

A leader takes all those necessary steps to create and sustain the highly motivated workforce. Researchers claim that motivation is a key component of leadership [21]. More precisely, it can be said that without motivating the followers, leaders cannot become successful. From the above discussion, we are building an argument here that the rewards and feedback given by a transactional leader can enhance employee's intrinsic motivation which further leads to innovative work behavior.

The foremost objective of this research was to empirically test the direct impact of TSL on IWB of employees. Further, the mediation role of employees IM in relation to TSL and IWB was also under consideration of this research. Structurally this study is carried out as: next section presents a literature review and hypotheses development, then the quantitative methodology which is followed by the results and key findings. After that, discussion on the results, practical implications, research limitations, and directions for the future research are also proposed.

## 2.   Literature Review and Development of Hypotheses

### 2.1 Transactional Leadership (TSL) and Innovative Work Behavior

TSL can be described as mutual contract, exchange or agreement between a leader and follower. The primary focus of such leadership is to identify specific expectations of subordinates and provide rewards in exchange for their performance [22]. The relationship between leaders and subordinates is dependent on their mutual benefits. A transactional leader identifies the needs of his/ her subordinates and tries to satisfy those needs with rewards when the desired performance levels are achieved [23]. TSL comprised the three major dimensions including contingent reward, management by exception -active, and management by exception-passive. Brief detail of each dimension is given below:

  i.   **Contingent reward (CR):** Leader clarifies what the subordinates should do in order to be rewarded.
 ii.   **Management by exception–active (MBEA):** Leader continuously monitors the performance and takes the corrective measures proactively throughout the process [24].
iii.   **Management by exception-passive (MBEP):** Simply, the leader does not deal the issues unless they arise [24].

It is pertinent to state that, authors have chosen only those two dimensions of TSL i.e CR & MBEA, which seem to be proactive and anticipated to have more relevance with IWB.

Since the last couple of decades, the theorists and practitioners have demonstrated a considerable interest in exploring innovative work behavior [25]. One reason for exploring the said concepts is due to the competitiveness of business world today that has created such a challenging environment where organizations cannot survive without incorporating at least some degree of innovation in their processes, products or operations. Innovative work behavior (IWB) is a process that contains four dimensions *"idea exploration, idea generation, idea championing, and idea implementation"* [26]. In recent times, [27] stressed that innovative work behavior includes both, that is generation and implementation of novel ideas. Hence, it can be said that every innovative employee must be creative but every creative employee may not be innovative.

From extant literature, there exists a significant relation between TSL and the effectiveness of the leader which ultimately yields positive work outcomes or performance [28, 29]. However, in its comparison with transformational leadership (TFL), TSL has received exceptionally less attention from the scholars in its relation with IWB. Possibly because this style is more tasks oriented and promotes status-qua for achieving desired performance which does not seems appropriate for innovation. However, a keen perusal of the existing literature on the relationship of TSL to IWB revealed an abundance of inconsistencies in the findings. This could be ranged from directly negative [22] to directly positive [30] and sometimes even no relationship [31]. Such state of affairs of the extant literature established a significant gap for future research to explore additional factors causing such differences in the findings.

Tyssen [32] argued that a transactional leader gives followers material and psychological rewards by their achievements of tasks. Most recently [33] while comparing TFL and TSL about IWB, have also found the direct and positive relationship of TSL to IWB. Relying on findings of recent studies, we proposed the following hypothesis:

**H-1: Transactional Leadership has direct positive influence on employees Innovative Work Behavior.**

### 2.2 Transactional Leadership (TSL) and Intrinsic Motivation (IM)

The desire to perform an activity for its own sake to experience pleasure and satisfaction innate in that activity is called intrinsic motivation [34]. In contrary, extrinsic motivation typically defined as the desire to perform an activity with the intention to achieve positive consequences such as an incentive or to avoid negative consequences such as a punishment [35]. Researchers, usually, argued that these two streams of motivation are likely to be negatively related [36] and increase in one would be at the cost of losing another. However, relying on expectancy theory [37], [38] anticipated that intrinsic and extrinsic motivation could mutually positively predict work performance and employee well-being. In the same vein, behavioral modification theorists also demonstrated meta-analytically that the combination of tangible and intangible incentives could have a synergistic effect on performance [39]. Situations where a person does well enough to get a higher level of reward that indicate his/ her excellent performance reduces the controlling aspect of rewards and can enhance his / her intrinsic motivation [36]. In such cases, an employee can perceive the contingent rewards offered by a transactional leader as a symbol of his / her competence and capability. Therefore, the following hypothesis was developed:

**H-2: Transactional Leadership has positive influence on employees Intrinsic Motivation**

### 2.3 Intrinsic Motivation (IM) and Innovative Work Behavior (IWB)

Motivation plays a key role towards employee innovative work behavior [6]. Leaders should keenly observe and understand what motivates an individual towards innovativeness. Motivated employees find enjoyment in their work [40], thus are more likely to engender innovative behavior. They feel self-satisfaction and enthusiasm while putting efforts towards job outcomes. When employees have intrinsic motivation, they become offensive, frank and intend to accept new ways of doing which are conducive to creativity and innovation [41]. Given the existing literature, the following hypothesis was proposed:

**H-3: Employees Intrinsic Motivation has positive influence on their Innovative Work Behavior.**

**2.4 Mediating role of Intrinsic Motivation between the relationship of TSL and IWB**

Cognitive evaluation theory advocates that it depends on the interpretation of individuals how they see the effects of rewards on their intrinsic motivation and creativity [36]. Individual may perceive these rewards as controlling or a symbol of their competence to deserve these rewards. Accordingly, employees may observe the contingent rewards on their performance as an opportunity, symbol of their competence and autonomy, thus having positive effects on their intrinsic motivation [42]. Findings of the recent meta analysis conducted by [43] found significant positive relationship of intrinsic motivation with employee performance when rewards were indirectly attached to the performance. An implied assumption was that tangible incentives or contingent rewards provided by a transactional leader could be positively related to intrinsic motivation of employees which further leads to their innovative work behavior. Thus, the following hypothesis was presented as an outcome of the above stated argument:

**H-4: Intrinsic Motivation (IM) mediates the positive influence of TSL with IWB.**

### 3. Theoretical Framework

After reviewing the extant literature, authors prepared a framework linking all the constructs in pictorial representation. The model is placed at the end of this paper at **Figure-1.**

### 4. Research Methodology

#### 4.1 Measures:

All the measurement scales used in this study were chosen from previous studies with established reliability and validity. For all the items, five-point Likert scale was used with range from "Strongly Disagree" as (1) to "Strongly Agree" as (5). The questionnaire was in English language because in Pakistan it is the official language. De Jong and Den Hartog developed a scale to measure *IWB* [26] the same was used in this study. *TSL* was measured by using the questions from The Multifactor Leadership Questionnaire MLQ (5X) scale developed by Bass & Avolio. Questions were retrieved from the study of Antonakis [44]. Four items were adopted from the work of Amabile [45] and used by Tierney et al [46] to measure the construct of **IM.**

#### 4.2 Sample Design and Collection of Data

For data collection, authors have selected employees working at the middle management level of the Power Sector of Pakistan. This sector was selected because it is bureaucratic and often has a transactional leadership style. Besides, this sector is believed to have innovative practices to meet the challenging requirements and energy crisis of Pakistan. Google Forms were used to design an online questionnaire. Online link to the questionnaire was sent to four hundred (400) randomly selected employees. In total 271 filled responses were received out of those 260 responses were useable; eleven were discarded because of zero variation in the responses or incompleteness.

### 4.3 Sample Profile

Summary of the sample profile is given in **Table-1** which gives a comprehensive picture about the nature of organization, gender, age, job nature, position, experience, and educations of the participants.

## 5.      Results and Analysis

For this study, we used "Partial Least Squares Structural Equation Modeling (PLS-SEM)" which is a composite based approach and best suits even when the sample size is small [47, 48]. Measures of validity and reliability of the constructs along with descriptive statistics calculated with the help of Smart-PLS 3 [49] software are presented in **Table-2.** It is pertinent to state that even though PLS-SEM is not sensitive to non-normal data and can handle it efficiently, [50] we still confirmed its normality by assuring the values of skewness and kurtosis are inside the authorized limits of -2 to 2 [51]. Hence, there is no issue of non-normality of the data and it is sufficiently good to be analyzed with structural equation modeling (SEM).

### 5.1      Assessment of the Measurement Model

All the constructs were reflective in nature were evaluated together for the assessment of measurement model. Values of Cronbach alpha, composite reliability (CR), and average variance extracted (AVE) were used to assess the reliability and validity of the constructs [47, 50, 52].

First, the indicators and constructs reliability was measured to establish reliability of the measurement model. Only those indicators were retained which had values above 0.6 while removing those with lesser values i.e the minimum threshold. Internal consistency and reliability of the measurement model were assured in **Table-2** by established criteria of Cronbach alpha and composite reliability values more than 0.6 and 0.7 respectively [53]. Then, convergent and discriminant validity of all the constructs were used to confirm the construct validity. The values of average variance extracted (AVE) for all the constructs were greater than the minimum threshold of 0.5, thus confirming the convergent validity.

The degree to which a construct is different from all the other constructs in a given model is known as discriminant validity of that construct [47]. According to Fornell and Larcker , discriminant validity is proved "*if the square root of AVE for each construct is higher than its correlation coefficient with all other constructs*" [48]. In PLS-SEM analysis [54], Heterotrait–monotrait (HTMT) is more recent method to establish discriminant validity. It is recommended to have an HTMT value below 0.90 to confirm discriminant validity for alike constructs [54]. **Table-3** proved the discriminant validity of all the constructs with both the approaches discussed earlier. To conclude, Cronbach Alpha, CR, and AVE values of the constructs were above 0.6, 0.7, and 0.5 respectively. Thus the minimum requirement of values was fulfilled [54, 55].

## 5.2    Assessment of the Structural Model

The relationship between the endogenous and exogenous constructs was estimated while assessing the structural model through values of $R^2$, beta coefficients and their direction [52, 56]. SmartPLS 3 [49] was used for the assessment of structural model. Path weighting scheme was run with default settings of the said software with a maximum of 300 iterations and a stop criterion of ($1 \times 10{-}7$). The bootstrapping procedure was run with 5000 subsamples, and no sign changes option was chosen. Significance levels for one-tailed testing along with bias-corrected and accelerated bootstrap were the other options selected to run the procedure. Most recent trends in research advocate the use of bias-corrected confidence intervals in addition to p-value to confirm the significance and acceptance or rejection of any hypotheses [52, 55]. To establish the significance of a path coefficient at an error level probability of 5%, the 95% confidence interval (bias-corrected and accelerated) should not contain a zero value [52, 55]. Results in **Table-4** represent the detail of all the hypotheses where the results were confirmed through both bias-corrected confidence intervals and t-values.

## 6.   Discussion

This study aimed to investigate the influence of transactional leadership (TSL) on innovative work behavior (IWB) and to explore the mediating role of intrinsic motivation (IM) in the said relationship. Results revealed that TSL has a positive impact on IWB, which is consistent with the results of the prior studies [33] and in contrary to other studies [22]. Besides, mediating role of IM has also been empirically proved. The later result has significantly advanced the debate regarding the TSL, IM and IWB relationship. Specifically, our analysis suggests that feedback and contingent rewards of TSL can be pooled in a synergistic manner with IM which further leads to predict IWB of employees. Hence, results corroborate with Self-determination theory which suggests that some forms of extrinsic rewards (like contingent rewards of TSL) can positively affect IM through the identification and integration processes [57]. This study has also validated that rewards enhance creativity and innovation as confirmed by several other studies [58, 59].

## 7.   Practical Implications

Results of this study stressed that transactional leadership is instrumental in increasing employee innovative behavior. Hence, the superiority of transformational leadership style to generate innovative behavior among employees has been challenged. Now, it can be argued that transactional leadership can be considered at par with transformational leadership in the similar contexts were this research is carried out. Moreover, it would be also interesting for the leadership of organizations that contingent rewards and feedback can enhance even the intrinsic motivation of employees which further leads to positive work outcomes like innovative work behavior. Further investigation about what kind of rewards and performance standards can more motivate the employees intrinsically in achieving IWB will help the leadership to bring and retain innovativeness in their organizations.

## 8.   Limitations of the Study and directions for future Research

Results of this study are subject to the following limitations: At the outset, this is a cross-sectional study and thus it is incapable to provide inference on causality. This limitation can be clarified with longitudinal research. Besides, this study was based on self-reporting which can be subject to social desirability bias. Although, this inherent issue of self-reporting is generally acceptable in management research, however, through the cross-rating scheme, i.e including ratings of the leaders about IWB of the subordinates can mitigate this bias. Further, this study just explored and tested the relationships of TSL with IM and IWB, however, why TSL positively relates to IM and IWB attracts further research efforts regarding consideration of potential mediators and moderators. Personality differences like locus of control and creative self-efficacy could be the consideration of aspirant researchers. Finally, this study was carried out in a specific cultural and contextual setting of organizations in Pakistan which can considerably different from Western culture and context. To claim enhanced generalizability, the present research requires further validation through similar studies carried out in different cultural settings.

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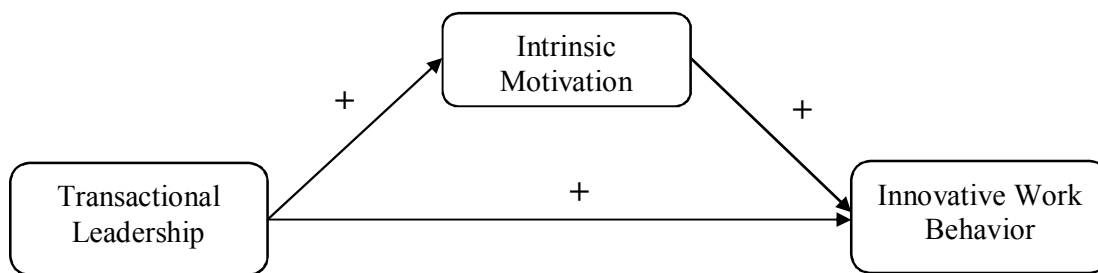
**Figure-1: Theoretical Framework**

**Table-1: Sample Profile**

| Gender | Male **(71%)** | Female **(29%)** | | | |
|---|---|---|---|---|---|
| Age (Years) | 18 to 25 (**23%**) | 26 to 35 (**36%**) | 36 to 45 (**25%**) | 46 to 55 (**12%**) | Above 55 (0**4%**) |
| Job Nature | Technical **(63%)** | | Non-Technical **(37%)** | | |
| Position | Assistant Manger (**46%**) | | Deputy Manager (**31%**) | Manager (**23%**) | |
| Experience( Years) | Less than 1 (**8%**) | 1-5 (**18%**) | 6-10 (**37%**) | 11-15 (**26%**) | Above 15 11% |
| Education | Below Graduation **(07%)** | | Graduation (**24%**) | Masters (**67%**) | Ph.D (**02%**) |

**Table-2:  Descriptive Statistics, Reliability and Validity of the Constructs, and $R^2$**

| Name of the Constructs | Items | Loadings | Mean | SD | Skewness | Kurtosis | *t*-value |
|---|---|---|---|---|---|---|---|
| **Transactional Leadership (TSL)** <br><br> **Alpha=0.833, CR=0.878, AVE=0.548** | CR1 | 0.755 | 3.351 | 1.139 | -0.304 | -0.714 | 08.785 |
| | CR2 | 0.716 | 3.212 | 1.141 | -0.204 | -0.627 | 05.148 |
| | CR3 | 0.809 | 3.061 | 1.212 | -0.183 | -0.823 | 06.669 |
| | MBEA1 | 0.813 | 3.209 | 1.088 | -0.387 | -0.499 | 08.340 |
| | MBEA2 | 0.769 | 3.047 | 1.104 | -0.313 | -0.681 | 05.498 |
| | MBEA3 | 0.543* | 3.368 | 1.187 | -0.454 | -0.598 | 03.144 |
| **Intrinsic Motivation (IM)** <br><br> **Alpha=0.848, CR=0.897, AVE=0.685, $R^2$=0.066** | IM1 | 0.862 | 4.087 | 0.800 | -1.062 | 1.244 | 15.159 |
| | IM2 | 0.861 | 4.015 | 0.781 | -0.763 | 1.178 | 16.913 |
| | IM3 | 0.836 | 4.226 | 0.794 | -1.009 | 1.366 | 16.349 |
| | IM4 | 0.752 | 3.980 | 0.838 | -0.604 | -0.074 | 08.219 |
| **Innovative Work Behavior (IWB)** <br><br> **Alpha=0.926, CR=0.939, AVE=0.631, $R^2$=0.260** | OE1 | 0.445* | 3.067 | 0.967 | 0.043 | -0.268 | 03.190 |
| | OE2 | 0.652 | 3.891 | 1.001 | -0.936 | 0.609 | 05.845 |
| | IG1 | 0.791 | 3.949 | 0.935 | -0.465 | -0.722 | 07.728 |
| | IG2 | 0.744 | 3.734 | 0.912 | -0.581 | 0.430 | 14.136 |
| | IG3 | 0.815 | 3.746 | 0.935 | -0.314 | -0.751 | 11.966 |
| | IC1 | 0.743 | 3.620 | 1.039 | -0.313 | -0.791 | 05.432 |
| | IC2 | 0.832 | 3.891 | 0.960 | -0.758 | 0.265 | 10.416 |
| | II1 | 0.821 | 3.687 | 0.975 | -0.239 | -0.699 | 10.363 |
| | II2 | 0.869 | 3.804 | 0.966 | -0.664 | -0.010 | 17.250 |
| | II3 | 0.858 | 3.949 | 1.022 | -0.946 | 0.326 | 15.612 |

**Note:** CR (Contingent Reward), MBEA (Management by Expectations Active), OE (Opportunity Exploration), IG (Idea Generation), IC (Idea Championing), II (Idea Implementation). * Items dropped due to low loading i.e. 0.6.

**Table-3: Discriminant Validity of the Constructs**

|  | IM | IWB | TSL |
|---|---|---|---|
| **IM** | **0.828** | 0.480 | 0.289 |
| **IWB** | 0.444 | **0.794** | 0.384 |
| **TSL** | 0.257 | 0.357 | **0.741** |

**Note:** Diagonal values represent the square root of AVE's while values of HTMT are shown above the diagonal. Besides, values of the correlations among the constructs are shown below the diagonal.

**Table-4: Results of Hypotheses**

| No | Hypothesis | Beta | SE | t-value | Bias Corrected Confidence Interval | | Decision |
|---|---|---|---|---|---|---|---|
| | | | | | 5 % LL | 95% UL | |
| 1. | **H1:** TSL -> IWB | 0.260 | 0.064 | 4.044 | 0.143 | 0.355 | Accepted |
| 2. | **H2:** TSL -> IM | 0.257 | 0.063 | 4.087 | 0.140 | 0.349 | Accepted |
| 3. | **H3:** IM -> IWB | 0.377 | 0.071 | 5.316 | 0.262 | 0.490 | Accepted |
| No | Hypothesis | Indirect Effect | SE | t-value | Bias Corrected Confidence Interval | | Decision |
| | | | | | 5 % LL | 95% UL | |
| 4. | **H4:** TSL -> IM -> IWB | 0.097 | 0.032 | 3.032 | 0.052 | 0.154 | Accepted |