

Authentic Leadership as Predictor of Innovative Work Behaviour: The Mediating Role of Social Informal Learning Behaviours

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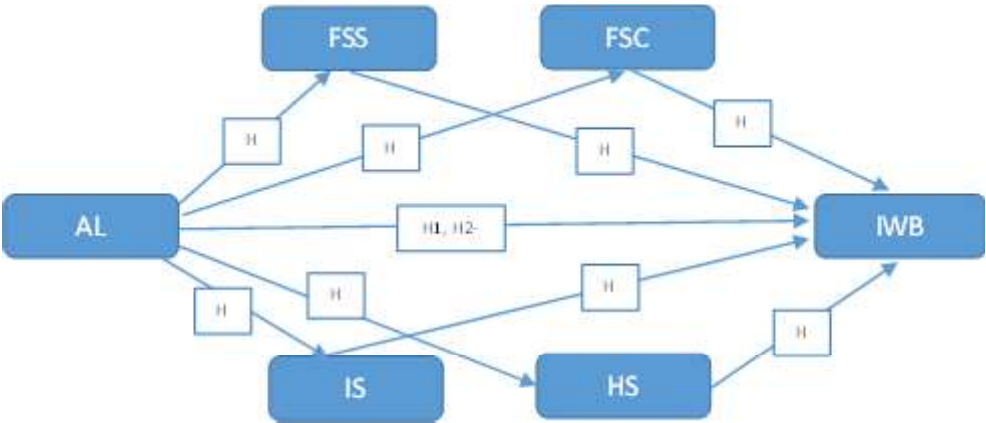


Figure 1. Research Framework.

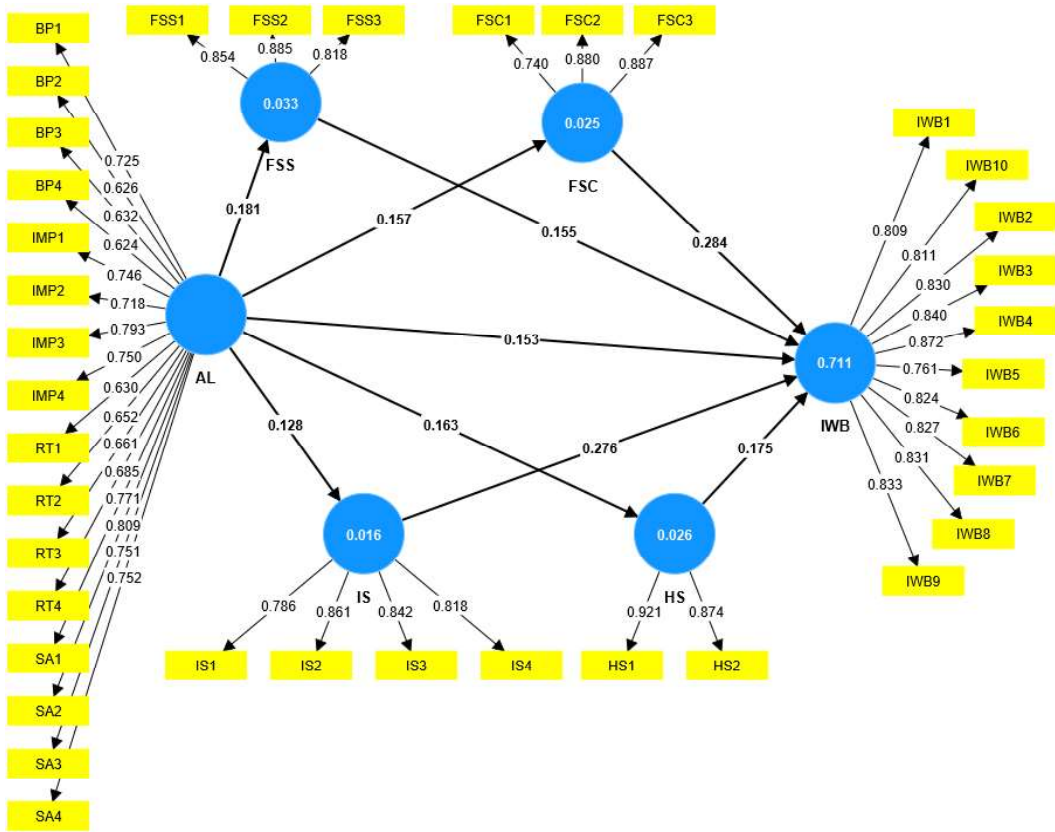


Figure 2. Research model with values.

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Abstract: Leadership style is important in fostering a healthy work context and enhancing motivation of employees. Drawing on theories of positive leadership and workplace learning, this research investigated the role of Authentic Leadership (AL) as a facilitator of Innovative Work Behaviour (IWB) and investigated the mediating role of role of social informal learning behaviours. A total of 303 useful questioners were obtained from leaders and employees of 201 Small and Medium Enterprises (SMEs) located in Pakistan. The data was analysed using SMART-PLS 4. The result demonstrated that AL had a positive and significant association with IWB. Moreover, this relationship was mediated by two out of four social informal learning behaviours examined. The study has both theoretical and practical contribution. The limitation of this study and possible avenues for future research are discussed towards the end.

Key Words: Authentic Leadership, Innovative Work Behaviour, Social Informal learning, Situated learning theory, social Contagion theory, SMART-PLS4.

1. Introduction

Businesses today face business environment that is dynamic and highly competitive (Valdez-Juárez & Castillo-Vergara, 2021). Leaders must nurture a culture that is individuals centred, supportive, and where individuals feel positive energy. Accordingly, different forms of leaderships can foster such cultures in organization to improve individual and ultimately organizational productivity (Acciari et al., 2023). In this context, authentic leaders exhibit ethics, fairness, integrity, and openly share information with subordinates (Baquero et al., 2019). This novel form of leadership has gained considerable attention of researchers as it can have valuable influence on organizational effectiveness (Baquero et al., 2019).

Among others, concepts like job satisfaction, employee commitment, and well-being of employee have been comprehensively researched in area of positive organizational studies. AL being a process arises from positive psychometric capabilities, self-regulation and awareness as its key components (Avolio et al., 2004). AL is regarded as highly influential predictor of positive job outcomes including IWB (Hu et al., 2018). Earlier empirical studies have contended that IWB is about the attempt of an employee for exploring opportunities, generating novel ideas, sponsoring them, and ultimately executing those ideas (I. Ahmad et al., 2023). Earlier studies have also examined the role of various factors in fostering IWB including workplace learning (Elghaish et al., 2022), personality factors (Li et al., 2017), servant leadership (Khalil et al., 2024; Khan et al., 2021), and AL (Bai et al., 2022).

In this context, it could be argued that diverse factors have been examined as antecedents of IWB however; there have been only few studies that have examined the concept in Pakistani Context (Ahmad et al., 2023). In addition, these studies have been carried out in diverse sectors and there is scarcity of empirical research on antecedents of IWB in SMEs (Shah et al., 2023). Hence, based on the above gap, the first objective of the current study is to examine the role of AL as facilitator of IWB in SMEs located in Pakistan.

Furthermore, previous research has considered workplace learning as a crucial determinant of competency and skills development of employees (Gerken et al., 2016). Workplace learning is characterized as formal and informal in nature (Coetzer et al., 2020). Formal learning is

generally organized and have organizational support while, informal learning as learner initiated and generally unstructured (Marsick et al., 2017). Empirical evidence indicates that majority of the learning that take place in work context is informal in nature (Noe et al., 2013). Informal learning could be individual or social in nature, while researchers have stressed the significance of social aspect of informal learning i.e. social informal learning (Gerken et al., 2016). There are diverse learning behaviours that could be regarded as informal and that could contribute to different job outcomes.

Empirical research has examined various factors as mediators between AL and its different outcomes including well-being, transparency (Baquero, 2023), proactive personality, employee engagement (Bai et al., 2022) etc. In current research, social informal learning behaviours are considered as potential mediators between the relationship of AL and IWB. Hence, the second objective of the current research is to examine the mediating role of social informal learning behaviours between AL and IWB. The next section discusses the literature connected to diverse variables incorporated in this research, followed by the methodology adopted, then the results of the data analysis are presented, this is followed by discussion, contribution, and limitations of the current study.

2. Literature Review

2.1 Theoretical underpinning

The objectives of the current research are to inspect the positive role of AL on IWB and the mediating role of informal learning behaviours. The study is informed by Social Contagion Theory (SCT), Situated Learning Theory (SLT) and Social Cognitive Theory (SCT1). **SCT is one of the many leadership theories and it implies that AL can have a social contagious effect on employee by acting externally. This means that AL can enhance a trust relationship between leader and employees and can strengthen their relationship (Wang et al., 2021).** When a leader is considered real, ethical, optimistic, dependable, and consistent by employees, the likelihood of negative behaviours and outcomes is reduced resulting in a contagion effect (Riveros, 2012; Dadaczynski et al., 2021). According to this view, leaders are in good position to share ideas to their followers/employees who as a result are encouraged to show positive behaviour, feel a sense of self-worth, and respond in a positive way (Baquero, 2023).

In addition, SLT is a learning theory that contends the importance of context based, authentic instructions for long term and effective learning (Bell et al., 2013; Lave & Wenger, 1991). The main aspects of SLT are constructivist learning taking place in an authentic settings combined by social interactions (Bell et al., 2013). Such learning can include peer reflections and group work to embolden learning through social interaction (Riveros et al., 2012), hence improving the experience of learning. **As SCT advocates that AL will encourage a healthy work environment and positive relationship between leader and employees, there will be more social interaction. Such social interaction will produce more positive job outcomes and encourage learning that will be informal in nature (Gerken et al., 2016).**

Furthermore, SCT1 contends that human behaviour could be demarcated as the interaction and interconnection of individual, behavioural, and environmental aspects (Bandura, 1986). SCT1 recognises the importance of social learning theory and also adds the importance of social and contextual factors corresponding to behavioural outcomes, self-regulation and cognitive process (Jacobs & Siegford, 2012).

Hence, in line with SCT, AL will encourage employee to behave in a positive and innovative way. In addition, SLT and SCT1 suggest **that in a work environment characterized by trust and**

positive social interactions, employees are probable to take part in learning actions in their routine. Furthermore, such learning will most probably be informal in nature.

2.2 Authentic Leadership

In recent years, authentic leadership has gained interest of researchers and scholars as a gold standard for leadership (Coetzer et al., 2020). AL could be understood as an action that can motivate employees and can build positive mental status that motivates everyone to perform more than what is expected of them (Álvarez et al., 2019). Employee tend to respond the positive behaviour and the trust and resultantly act and behave in a positive way (Hsieh & Wang, 2015).

AL as a form of leadership comprises four behavioural elements i.e. Self-awareness (SA), Balanced Processing (BP), Internalized Moral perspective (IMP), and Relational Transparency (RT) (Walumbwa et al., 2008). SA is about the ability of a manager to comprehend their strength and weaknesses and how these action can influence employees (Du et al., 2022). RT is about the ability of the leader to share information openly and positive emotions with employees in an attempt to increase their psychological safety (Wirawan et al., 2020). IMP refers to the ability of leaders to do their self-regulation directed by their internal moral values, that as a result creates a transparent and fair organizational environment (Wirawan et al., 2020). Lastly, BP refers to the ability of the leader to make rational and objective decisions in their work settings (Du et al., 2022). Combined, these four components make available an inspiring work environment where they can fearlessly share their creative ideas without worrying about the aftermaths (Du et al., 2022).

2.3 Innovative Work Behaviour

Innovative employees develop new ideas, promote them and implement them (Amabile, 1988) 29]. IWB is the conscious participation of individuals and groups in an attempt to bring about innovations (Messmann & Mulder, 2012). It can help businesses grow and perform in an effective and efficient way (Anderson & Gerbing, 1988). IWB is about activities and actions that are less formal in nature aimed at availing opportunities in business context which is important for improving the performance of the organization (Coetzer et al., 2020). It incorporates exploration of opportunities, generating and promoting new ideas, and implementing those ideas (Kanter, 1988).

IWB is conceptualised by some researchers as multidimensional construct (Almeida, 2015; So, 2019; Bell, 2013; Walumbwa et al., 2013), introduce innovations in their work organization, whereas some researchers have conceptualised it as a research construct of single dimension (de Jong & den Hartog, 2010; Kleysen & Street, 2001). For example, (Reuvers et al., 2008) defined IWB to be a unidimensional construct to make sense of employees IWB. Furthermore, De Jong and Den Hartog, 2010) also conceptualized IWB as a unidimensional construct. They examined different dimensions of IWB but did not find conclusive confirmation of the uniqueness of these dimensions. Their study concluded that IWB is a unidimensional construct which examines different stages of introducing and implanting innovative ideas.

In this study, IWB is considered as a unidimensional construct of measure different stages of IWB and adopts De jong and Den Hartog (De Jong & Den Hartog, 2010) model of operationalizing IWB.

2.4 Association of AL and IWB

It is important to comprehend the role of leader in stimulating IWB among their employees to contribute to the sustainable performance of the firms (Sengupta et al., 2021). SA and RT in authentic leader can nurture positive demonstration that inspires IWB (Anderson & Gerbing, 1988). In situations where employees consider their leader to possess the qualities of authentic

leadership, they will be encouraged to bring about innovative ideas and implement them with more confidence and lesser fear of failure (Zhou & Verburg, 2020).

AL inspire employees to build upon their psychological state of safety and empowerment, self-efficacy, and optimism and in result try to be innovative in their work context (Schuckert et al., 2018). In case Innovations attempt is not successful, authentic leaders help their employees to consider their work context as conducive of trying out new things and maintain positive leadership (Tynjälä, 2013). **There is prior empirical evidence that AL can produces positive job and behavioral outcomes in different national and organizational contexts. For instance, among employees working in small firms in Netherland, Spain, and Poland (Laguna et al., 2019), hospital sector employees in Turkey (Korku & Kaya, 2023), high-tech industry employees in China (Bai et al., 2022), and public sector employees in Qatar (Gelaidan et al. (2024).** In light of these factors, it is proposed that AL will foster IWB among employees and the subsequent hypothesis is framed.

H1: AL has a positive association with IWB

2.5 Social Informal Learning Behaviours

Learning in the workplace can happen in diverse forms like formal and informal, independently or through interaction of employees (Coetzer et al., 2020). Formal learning is generally organized and supported by the organization but, informal learning is usually initiated by the learner and is usually not supported by the organization (Marsick et al., 2017). Empirical research advocates that most of the learning in organizations takes place through informal means (Noe et al., 2013). Informal learning is about learning activities that are cognitive and physical in nature, and that could be intentional or reactive and it does not lead to any formal qualification (Lohman, 2005). It is a form of learning where there is usually no organised support for learning (Hoekstra et al., 2009).

While some researchers have focused on informal learning as individual learning (Lohman, 2005), some have focused on the social aspect of the informal learning (Gerken et al., 2016). However, researchers have considered it worthwhile to understand individual and social informal learning distinctly to make sense of their effect. Social informal learning is proactive in nature, that attempts to seek relevant others in the workplace to the purpose of learning has gained tremendous attention (Tynjälä, 2013).

Empirical evidence indicates that feedback seeking, information seeking (IS), and help seeking (HS) are informal learning activities (Froehlich et al., 2017). Feedback seeking is about knowing about the appropriateness of the actions taken by an individual and using that feedback to accomplish specific objectives (Ashford & Cummings, 1983). Feedback seeking could occur between employees and their supervisor i.e. Feedback Seeking from Supervisor (FSS) or it could occur between employees i.e. Feedback Seeking from Colleagues (FSC). Employees should act FSS and FSC to improve their performance or learn (Ashford & Cummings, 1983). IS means active pursuit for gaining and giving out information (Froehlich et al., 2017). HS behaviour means asking other for advice or assistance and it could be regarded as a particular form of IS behaviour (Froehlich et al., 2017). Research has shown a positive association between these informal learning activities (Ashford & Cummings, 1983). For instance, IS permits employees to experience reduced insecurity and uncertainty, and, realize job success and performance factors (Borgatti & Cross, 2003). These four social informal learning behaviours as adopted in this study as mediators of the association of AL and IWB. Their mediating role is further elaborated in the following section.

2.6 The Mediating role of Social Informal Learning

Research has shown that FSS and FSC enable employees to constantly enhance their work related performance as well as learning practices and its outcomes (Luthans, 2002; Li, 2017). Employees who act upon the feedback they have received are more likely to oversee assumptions about their performance and perform effectually (Du et al., 2022). Such acting on feedback is an important aspect of the learning experience of an employee. In addition, research has also confirmed the mediating role of different forms of feedback between leadership, innovation climate etc. and different job outcomes (Park, 2014; Spreitzer, 1995).

In addition, as mentioned earlier, IS lets employees to makes sense of important factors necessary for success in a job and that enhances performance of employees. IS has been found to be positively related to different job outcomes i.e. employability, health literacy etc (Gerken et al., 2016). Furthermore, empirical research has also confirmed that IS mediates the relationship between different variable (Acciari et al., 2023).

Lastly, HS is another essential element of social informal learning. It helps to magnify resources such as knowledge and is considered as an important factor for success in a job (Van Der Rijt et al., 2012). HS is primarily used by employee to resolve problems and improve their work related proficiency (Newman et al., 2023). Empirical evidence has shown that HS does mediate the relationship of different variables prior knowledge and employee engagement (Dong et al., 2020). Moreover, Crans et al (2021) found that FSS, FSC, IS, and help seeking behaviors positively mediated the association of learning climate and employability in government sector employees in Netherland. Their study was the one which examined all the social informal learning behaviors included in this study. Hence, based on the above discussion, the following hypotheses are formulated to examine the mediating role of FSS, FSC, IS, and HS in the relationship of AL and IWB.

H2: FSS mediates the relationship between AL and IWB

H3: FSC mediates the association of AL and IWB

H4: IS mediates the link between AL and IWB

H5: HS mediates the association between AL and IWB

Figure 1 goes Here

3. Methodology

3.1 Research Settings

Considering the nature of this research, a research philosophy informed by Positivism was adopted (Easterby-Smith et al., 2012). In accordance with the positivist philosophy, gaps in previous research were identified followed by hypotheses formulation, and finally, testing of the proposed hypotheses by adopting quantitative technique for analyzing the obtained data (Easterby-Smith et al., 2012).

The process of hypotheses development was elaborated in preceding sections. The subsequent sections will discuss the steps involved in gathering of the data and its analysis following the philosophical stance adopted. Figure 1 highlights the conceptual framework developed for current study.

3.2 Population, Sample, and data collection

The population of the current study included service sector SMEs in Pakistan. There are numerous definitions of SME and varies from country to country. In current study, the definition of SME provided by Small and Medium Enterprises Development Authority (SMEDA) was used. In line with the adopted definition, organizations having minimum and 10 and maximum 250 employees was considered as an SME (Smeda et al., 2023). Therefore, organization having 10-

250 employees and operating in service sector such as accountancy, advertising, Computer and software, consultancy, education, engineering, healthcare, IT, and insurance constituted the population for this study.

Once the population was defined, a sample of 201 SMEs located in KPK and Punjab Province was drawn. The research instrument developed for data collection had two sections. The first section was distributed among the owner/manager of the SME and the second part was distributed among 4 employees randomly. Thus the sampling technique used incorporated both probability (simple random technique) and non-probability (purposive sampling) sampling feature (Bell et al., 2013). The questionnaires were administered personally and also through postal means. The process of data collection lasted for about two months, starting in September 2023 and lasted till end of October 2023.

Following the above criteria, a total of 804 questionnaires were distributed among owner/managers and employees of 201 SMEs through personal and postal means. Out of the total distributed questionnaires, 303 useful questionnaires were received constituting a response rate of 38% approximately. The collected data was then analysed which is elaborated in the following sections.

3.3 Measurement Scales

The survey questionnaire had sections. The first section was about AL which was measured using Walumbwa *et al.* (Walumbwa et al., 2008) scale of authentic leadership. The scale included 16 items to measure authentic leadership (Sample item: I admit my mistakes to others). The scale was used in this study to measure AL as a unidimensional construct.

The second part of questionnaire was about informal learning behaviours. Froehlich, Beausaert, and Segers (Froehlich et al., 2017) scales was used to measure Informal learning behaviours. The scale consisted 12 items measuring 4 types of informal learning behaviours including FSS, FSC, IS, and HS. There were 3 items each to measure FSS (sample item: feedback received from my supervisor is helpful) and FSC (sample item: I am motivated by feedback from colleagues), four item to measure IS (sample item: I participate in meetings), and two items for the measurement of HS (Sample item: if I am in trouble I will get help from someone).

The third part of the scale was related to IWB. To measure IWB, De Jong, and Den Hartog (De Jong & Den Hartog, 2010) scale was used. The scale comprised 10 items to measure IWB (Sample item: I contribute to the implementation of new ideas). A 5 point Likert scale was used for measurement of all the items.

3.4 Technique used

Smart-PLS 4 was used for data analysis. For examining the proposed relationship among the latent variables, PLS-SEM was used (Hair et al., 2011a). In addition, as compared to CB-SEM performed with AMOS, PLS-SEM is statistically more powerful (Hair et al., 2011b). Furthermore, PLS-SEM has the ability to overcome the problems associated with ML techniques. In this context, measurement model and structural model was constructed and then evaluated, bootstrapping with a 5000 resample was performed to obtain the values of estimates, t-values, and standard deviation etc. (Hair et al., 2011a).

1. Analysis and Results

4.1 Sample Profile

Table 1 highlights the profile of the sample used in this research. The table portrays basic features of the participating SMEs as well as that of the respondents participated in this research. As mentioned earlier, a total of 303 useful questionnaires were returned which was considered appropriate to carry out SEM analysis (Kline et al., 2011).

Out of the total respondents, 41.3% belonged to KPK and 58.7% were from Punjab province of Pakistan. Next, the sample profile included 13.2% respondents from accountancy, 11.2% from advertising, 11.2% from computer and software, 9.9% were from consultancy, 13.5% from education, 10.6% from engineering, 16.5% from healthcare, 7.6% from information technology, and 6.3% were from insurance sector.

With respect to the respondents, 74.3% respondents were male and 25.7% were female. The table indicates that 42.6% respondents were aged up to 35 years, 33.7% were aged between 36-40 years, 16.3% were aged between 46-50 years, and 7.6% were aged over 55 years. Out of the total respondents, 37.6% had work experience of up to 5 years, 38.6% had 5-10 years work experience, 14.4% were 11-20 experienced, and 9.2% had work experience of 20 years or above. Finally, the profile exhibited that 2% respondents had secondary school qualification, 18.5% had a qualification equivalent to Higher secondary school certificate, 38.3% responded had graduation level qualification, and 41.3% respondents possessed a post-graduate level qualification.

Table 1 Goes Here

4.2 Measurement Model

Measurement model was examined in SME analysis following Anderson and Garbing (Anderson & Gerbing, 1988) criteria. Based on the adopted criteria, the evaluation was done in two steps. In first step, convergent validity of the model was assessed. For a model to achieve convergent validity, three conditions must be met. First, factor loading of the indicators of a latent variable must be over 0.5, second, the value of composite reliability should be greater than 0.7, and third, Average Variance Extracted (AVE) should have a value greater than 0.5 (Bagozzi & Yi, 2012; Fornell & Larcker, 1981).

The model was assessed based on the above adopted criteria. Table 2 highlights the result of the assessment of the measurement model. The obtained values were examined and all the values were found acceptable in view of the adopted criteria. The overall results indicated that the model achieved convergent validity.

Table 2 Goes Here

In second step, the model was examined for discriminant validity (Fornell & Larcker, 1981). According to Fornell and Larcker (Fornell & Larcker, 1981) criteria for discriminate validity, the diagonal values must be greater than then the rest of the values in that row and column. Table 3 portrays the results of the assessment of discriminant validity of the model. **Additionally, The Heterotrait-Monotrait Ratio of Correlations (HTMT) values presented in Table 4 are also used to assess discriminant validity in the model. Following Hair et al. (2017) recommendation, all the constructs have values less than .85, which suggest that these constructs are discriminant from each other.** These results (table 3 and 4) indicate that the model has achieved discriminant validity which implies that the participants were aware of the purpose of study, distinctiveness of the constructs used in this research.

Table 3 Goes Here

Table 4 Goes Here

In addition, cross loadings of the items were examined and the result highlighted (see table 4) that there was no issue of cross loading of items and all the items properly loaded on the latent variables they were intended to measure (Hair et al., 2011a). Furthermore, items were checked for multicollinearity by examining the VIF values. The results illustrated in table 5 indicated that there was no issue of multicollinearity, as all the VIF values were below the acceptable value of 5.

In sum, it could be argued that the model attained both convergent and discriminant validity.

Table 5 Goes Here

4.3 Structural Model

Once the measurement model was evaluated, the next step performed was examining the structural model. In structural model, the significant threshold was evaluated by performing bootstrapping with 5000 subsamples. For hypotheses testing, *p*-values and *t*-values were calculated. The acceptable range of *p*-value was < 0.05 and that of *t*-value was > 1.96 (Hair et al., 2011b). Hypotheses having *p* and *t* values in the acceptable range were accepted and those having inadequate values were rejected.

First, the direct effect was examined. Figure 2 and the values in table 6 highlights the results of the evaluation of the structural model. The results indicate that the beta value of the relationship of AL and IWB was 0.136, *t*-value 2.927, and *p*-value was 0.003. This indicated that all the values were acceptable range meaning that AL had a significant and positive association with IWB. Therefore, on the basis of these result, H1 was accepted.

After examining the direct effect, the next step in structural model was to determine the mediating role of FSS, FSC, IS, and HS in the relationship of AL and IWB. In this regard H2, H3, H4, and H5 were formulated. The values highlighted in figure 2 and table 6 portrays the results of the mediation analysis.

The values in table 7 indicate that H2 (AL → FSS → IWB) had a beta value of 0.028, *t*-value of 1.518, and *p*-value of 0.129. These values suggest that H2 was rejected implying that FSS does not mediate the association of AL and IWB.

Figure 2 goes Here

Table 6 Goes Here

Moreover, table 7 also highlights that H3 (AL → FSC → IWB) had a beta value of 0.045, *t*-value of 2.28, and *p*-value of 0.023. These values suggest that H3 was accepted implying that FSC behaviour does mediate the association of AL and IWB. In addition, FSC partially mediates the association of AL and IWB.

Furthermore, with respect to H4 (AL → IS → IWB), the values in table 7 shows that H4 had a beta value of 0.035, t-value of 1.724, and p-value of 0.085. Based on these values, H3 was rejected. This meant that IS behaviour does not mediate the association of AL and IWB.

Table 7 Goes Here

Lastly, H4 (AL → HS → IWB) was about the mediating role of HS between the association of AL and IWB. The results depicted in table 6 shows that H5 had a beta value of 0.028, t-value of 2.251, and p-value of 0.024. These values suggest that H5 was accepted. Hence, it could be argued that HS behaviour does mediate the association of AL and IWB. Furthermore, this mediation was partial in nature.

The f^2 values signify modest to moderate effect sizes throughout the relationships in the structural model (see table 8). AL exerts the most significant direct effect on IWB, with an effect value of $f^2 = 0.078$, but its influence on other mediators is minimal. The FSC exerts a comparatively greater influence on Innovative Work Behavior (IWB) ($f^2 = 0.081$), succeeded by IS ($f^2 = 0.067$), HS ($f^2 = 0.041$), and FSS ($f^2 = 0.032$). The findings indicate a moderate influence of AL and its mediators in forecasting creative work behavior.

Table 8 Goes Here

In addition, the model was examined for predicative relevance by examining R^2 and Q^2 values. R^2 values indicate how endogenous factors are explained by external factors and (Cohen, 2013). Among the constructs, IWB exhibits the highest R^2 value of 0.711, suggesting a substantial explanatory power of the model for this variable, while FSC (0.025), FSS (0.033), HS (0.026), and IS (0.016) reflect lower levels of explained variance, indicating limited predictive strength for these constructs. The Q^2 values, which assess predictive relevance through cross-validation, show positive values for all constructs, with IWB again leading at 0.069. This suggests the model has acceptable predictive relevance, particularly for IWB, while the lower Q^2 values for FSC, FSS, HS, and IS imply weaker predictive relevance for these constructs. The value of R^2 and Q^2 are presented in table 9. Collectively, the values suggest that the model has attained predicative relevance (Hair et al., 2011b).

Table 9 Goes Here

Discussion

This research had two broad research objectives, first was about the facilitating role of AL for IWB among employees of SMEs, second was about the role of four social informal learning behaviours as mediators between AL and IWB. To achieve the first objective, the relationship of AL and IWB was examined and the results indicated that there was a positive and significant impact of AL on IWB.

This finding was consistent with most of the previous empirical research surrounding the area of leadership and IWB. For example, Niu, et al (2018) study discovered a positive link of AL with IWB through organizational identification. In addition, this finding also supports the finding of Laguna et al (2019) whose study found that AL supports IWB among employees working in small firms in Netherland, Spain, and Poland. Furthermore, the results are also consistent with that of Bai et al (Bai et al., 2022) found a positive association between AL and IWB in high-tech technology firms in China. Moreover, the findings of this study also replicates the results of

Ahmad et al (Ahmad et al., 2023) who found a significant association of ethical leadership and IWB in software development companies in Pakistan. The context of their study was to some extent similar to the context of this study. Furthermore, this finding is also in line with the conclusions of Begum et al (2023), who found a positive impact of leadership (Inclusive) on IWB in healthcare sector. moreover, this finding is also consistent with the finding of Korku and Kaya (2023), who discovered similar results among hospital sector employees in Turkey. Finally, the findings are also in line with those of Gelaidan et al (2024), who found a positive link between AL and IWB in public sector employees in Qatar.

This finding suggests that AL is an influential condition that can have an encouraging impact on followers. In addition, the current study and prior studies have found an encouraging affiliation of AL and positive behaviours of followers. Hence, the study has achieved its first objective.

The second objective of the study was to examine that mediating role of social informal learning behaviours between AL and IWB. The study found that two behaviours (FSC and HS) mediated the association of AL and IWB whereas, FSS and IS did not mediate the relationship of AL and IWB. The results were inconsistent with Lee et al (Lee et al., 2019), who found that supervisory feedback mediated the association of leadership style and employee engagement. The study was also inconsistent with Crans et al (2021) who concluded that FSS did mediate the association of llearning climate and employability. The study was part consistent and part inconsistent with that of Du & Chang (Du et al., 2022), where feedback seeking mediated the association of innovation climate and creativity. Their study used both FSS and FSC in single scale and did not examine the two concepts separately. In current study, FSC was found to mediate whereas FSS did not mediate the association of AL and IWB. The positive mediation of FSC indicates that AL characteristics will foster a learning supportive environment that will encourage social interaction among colleagues which will in turn positively affect the association of AL and IWB. These findings indicate that employee are more likely to seek feedback from their colleagues as compared to their supervisor while attempting to innovate. Generally, in presence of AL characteristics, FSS is expected to take place more frequently and contribute to informal learning of employees (Gerken et al., 2016). Such learning will produce positive job outcomes including IWB (Shah et al., 2023). This factor needs to further examined to get more in depth understanding of the association.

Secondly, IS did not mediate the association of AL and IWB. It implies that in presence of AL characteristics in leader, information seeking form different source does not foster IWB among employees. This finding is inconsistent with those of Kuang and Cho (2019), who found IS to mediate the association of perceived susceptibility and anxiety on an increase in self- and response-efficacy. The finding is also inconsistent with those of Crans et al (2021), whose study found positive mediation of IS in the relationship of learning climate and employability in Netherland. by definition, Innovations require employee to explore opportunities, generate ideas, seek support, and also implement the generated ideas (Messmann & Mulder, 2012). At all these stages, employees are likely to seek information from different stakeholder to facilities the process of innovations. This finding is an interesting one and it indicates that IS not something that could be encouraged by positive leadership features like AL. This issue needs further investigation to enhance our understanding ot the subject in further details.

Lastly, HS did mediate the association of AL and IWB. This finding revealed that in presence of AL, employees HS did facilitate IWB among employees. the finding was consistent with Dong et al (Dong et al., 2020) who found HS to work as facilitator and mediator of different job

outcomes. The finding was also consistent with that of Crans et al (2021), who found HS to mediate the association of learning climate and employability.

Based on these findings, it could be argued that the study has achieved its second objective and found that two out of the four social informal learning behaviours mediated the association of AL and IWB among SME employees in Pakistan.

5.1 Research Contributions

5.1.1 Theoretical contributions

This study has important theoretical and practical contribution. Theoretically, the study attempts to enhance our understanding of different leadership (AL) and workplace learning (SLT and TSC1) theories and their application (Bandura, 1986). The study attempted to integrate these theories in a single study to examine whether positive forms of leadership foster IWB and encourage informal learning. Both IWB and informal learning are important in any organizational context including SMEs. IWB is crucial for organizational success which could be nurtured through workplace learning (Shah et al., 2023). The informal mode of learning is of greater importance keeping in view the lack of investment in formal learning opportunities in SMEs.

In addition, as suggested by Shah et al. (Shah et al., 2023), the study has extended our understanding of how different managerial and organizational characteristics can foster individual innovativeness in Pakistani culture and ultimately contribute to the organizational innovativeness. As mentioned earlier, there was lack of research in this area.

Moreover, the study also furthers the literature surrounding informal and incidental workplace learning (Marsick et al., 2017). It adds to the understanding of the positive role of informal learning in producing positive job outcomes. The study aids to the literature by examining the mediating role of social informal learning behaviours between an important form of leadership and IWB. To date, only one study (Crans et al., 2021). was found to examine the mediating role of multiple social informal learning behaviours in a single study. However, that study was in a different national and organizational context.

Furthermore, the study contributes to the literature surrounding the concepts of AL, IWB, and social informal learning in the context of a developing country (Pakistan), and organizational context (SMEs) where there is dearth of research on these concepts (Shah et al., 2023).

5.1.2 Practical contribution

The study also has important practical contributions for SMEs owners and managers. The study indicates that if owners and managers could exhibit the features of AL, they are more likely to influence their employees in a positive way. This positive influence can and does motivate employees to exhibit positive job outcomes and behaviors such as IWB.

In addition, if the workplace characteristics are such that they encourage social interactions among employees and motivate them to participate in different forms of informal learning behaviour, it will benefit from it. In context of SMEs, this is an important factor as there are

limited formal training opportunities available to employees (Almeida & Aterido, 2015). Lack of formal learning and training opportunities make it difficult for employee to enhance their knowledge and learning job related skills (Shah et al., 2023).

In such context, if owners or managers of SMEs can foster an environment where employees feel free to participate in informal learning activities, they are likely to bring about innovations in the workplace. Such modes of learning are cost effective and vital in enhancing the capability and skills of the employees. Such, skilled and capable employees are more likely to exhibit IWB. Hence, helping organization to be innovative and competitive in face of complex business environment.

5.1.3 Limitation and Future research

Beside its contributions, the current study is also subject to some limitations. First, the study was conducted in SMEs working in service sectors and located in two provinces of Pakistan. It could be beneficial to study manufacturing firms and also expand the geographical context of the study. In addition, future research could also focus on both service and manufacturing sector and different sub-sectors to further the results of the current study. It would also be beneficial to carry comparative studies for more detailed results.

Furthermore, the sample size of the current research was based on 201 SMEs, future research should consider a larger sample size to replicate the results of the current study on a larger scale and contribute the prevailing literature about the subject matter.

Conclusion

The current study achieved its objective by discovering that AL can facilitate IWB among employees. In addition, the study also found that learning in the work context can also play an important role in producing positive job outcomes and enhancing organizational effectiveness. Beyond a few limitations, this research adds values to the debate surrounding the positive side of leadership and its impact of positive organizational behaviour. The study has important theoretical and practical contributions.

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Table 1. Demographic Information.

Factor	Category	Frequency	Percent
Location (SME)	KPK	125	41.3
	Punjab	178	58.7
Sector (SME)	Accountancy	40	13.2
	Advertising	34	11.2
	Computer & Software	34	11.2
	Consultancy	30	9.9
	Education	41	13.5
	Engineering	32	10.6
	Healthcare	50	16.5
	Information Technology	23	7.6
	Insurance	19	6.3
Gender (Resp)	Male	225	74.3
	Female	78	25.7
Age (Resp)	Up to 35 years	129	42.6
	36-40 years	102	33.7
	46-50 years	49	16.2
	Over 55 years	23	7.6
Experience (Resp)	Up to 5 years	114	37.6
	5-10 years	117	38.6
	11-20 years	44	14.5
	Over 20 years	25	9.2
Education (Resp)	SSC	6	2.0
	HSSC	56	18.5
	Graduation	116	38.3
	Post-graduation	125	41.3

Table 2. Result of Measurement Model.

Variable	Item	Loading	Cronbach Alpha	CR	AVE
IL	SA1	0.771	0.934	0.942	0.505
	SA2	0.809			
	SA3	0.751			
	SA4	0.752			
	BP1	0.725			
	BP2	0.626			
	BP3	0.632			
	BP4	0.624			
	IMP1	0.746			
	IMP2	0.718			
	IMP3	0.793			
	IMP4	0.75			
	RT1	0.63			

	RT2	0.652			
	RT3	0.661			
	RT4	0.685			
	FSS1	0.854			
FSS	FSS2	0.885	0.812	0.889	0.727
	FSS3	0.818			
	FSC1	0.74			
FSC	FSC2	0.88	0.788	0.876	0.703
	FSC3	0.887			
	IS1	0.786			
	IS2	0.861	0.846	0.896	0.684
IS	IS4	0.842			
	IS4	0.818			
	HS1	0.921	0.761	0.892	0.806
HS	HS2	0.874			
	IWB1	0.809			
	IWB2	0.83			
	IWB3	0.84			
	IWB4	0.872			
IWB	IWB5	0.761	0.947	0.955	0.679
	IWB6	0.824			
	IWB7	0.827			
	IWB8	0.831			
	IWB9	0.833			
	IWB10	0.811			

Table 3. Discriminant Validity.

	AL	FSC	FSS	HS	IS	IWB
AL	0.71					
FSC	0.157	0.838				
FSS	0.181	0.721	0.853			
HS	0.163	0.716	0.671	0.898		
IS	0.128	0.816	0.741	0.751	0.827	
IWB	0.29	0.77	0.709	0.714	0.773	0.824

Table 4. HTMT values for discriminant validity

	AL	FSS	HS	IS	IWB	FSC
AL						
FSS	0.199					
HS	0.180	0.463				
IS	0.130	0.593	0.551			

IWB	0.298	0.808	0.846	0.863		
FSC	0.177	0.890	0.549	0.485	0.879	

Table 5. Cross Loadings.

Item/variable	AL	FSC	FSS	HS	IS	IWB	VIF
SA1	0.771	0.121	0.137	0.112	0.097	0.198	2.69
SA2	0.809	0.091	0.093	0.105	0.067	0.184	2.372
SA3	0.751	0.087	0.101	0.131	0.085	0.194	2.63
SA4	0.752	0.125	0.144	0.151	0.102	0.196	2.492
IMP1	0.746	0.11	0.101	0.087	0.087	0.199	2.5
IMP2	0.718	0.1	0.154	0.1	0.096	0.174	2.122
IMP3	0.793	0.169	0.208	0.227	0.165	0.322	2.498
IMP4	0.75	0.101	0.107	0.09	0.084	0.203	2.246
BP1	0.725	0.085	0.131	0.15	0.097	0.2	2.716
BP2	0.626	0.116	0.121	0.112	0.096	0.166	2.008
BP3	0.632	0.143	0.142	0.111	0.116	0.222	2.179
BP4	0.624	0.083	0.076	0.053	0.035	0.178	1.867
RT1	0.63	0.117	0.138	0.063	0.08	0.227	2.09
RT2	0.652	0.083	0.094	0.047	0.02	0.153	2.381
RT3	0.661	0.117	0.122	0.112	0.078	0.186	2.115
RT4	0.685	0.068	0.095	0.07	0.038	0.179	2.151
FSS1	0.178	0.607	0.854	0.534	0.602	0.603	1.912
FSS2	0.162	0.588	0.885	0.569	0.628	0.596	2.184
FSS3	0.123	0.647	0.818	0.611	0.666	0.613	1.576
FSC1	0.116	0.74	0.468	0.528	0.533	0.507	1.398
FSC2	0.155	0.88	0.647	0.613	0.749	0.694	1.965
FSC3	0.124	0.887	0.674	0.654	0.743	0.712	2.001
IS1	0.042	0.594	0.556	0.491	0.786	0.582	1.704
IS2	0.138	0.741	0.648	0.64	0.861	0.65	2.187
IS3	0.085	0.71	0.621	0.629	0.842	0.65	2.002
IS4	0.148	0.647	0.622	0.709	0.818	0.67	1.767
HS1	0.156	0.696	0.667	0.921	0.72	0.705	1.608
HS2	0.135	0.58	0.524	0.874	0.621	0.564	1.608
IWB1	0.236	0.594	0.643	0.519	0.569	0.809	2.496
IWB2	0.271	0.66	0.553	0.539	0.584	0.83	2.666
IWB3	0.255	0.74	0.591	0.533	0.612	0.84	3.022
IWB4	0.22	0.756	0.64	0.567	0.635	0.872	3.488
IWB5	0.183	0.568	0.545	0.489	0.677	0.761	2.052
IWB6	0.244	0.605	0.572	0.507	0.662	0.824	2.642
IWB7	0.246	0.606	0.577	0.542	0.696	0.827	2.618
IWB8	0.249	0.555	0.546	0.627	0.669	0.831	2.873
IWB9	0.224	0.627	0.591	0.791	0.623	0.833	3.012
IWB10	0.258	0.618	0.582	0.745	0.648	0.811	2.538

Table 6. Results of Structural model.

Association	Original sample	Sample mean	(ST-DEV)	T statistics	P values	Outcome
AL -> IWB	0.136	0.151	0.047	2.927	0.003	Accepted

Table 7. Specific indirect effect.

Path	Original sample	Sample mean	(ST-DEV)	T statistics	P values	Outcome
AL -> FSS -> IWB	0.028	0.03	0.018	1.518	0.129	Rejected
AL -> FSC -> IWB	0.045	0.051	0.02	2.28	0.023	Accepted
AL -> IS -> IWB	0.035	0.04	0.02	1.724	0.085	Rejected
AL -> HS -> IWB	0.028	0.03	0.013	2.251	0.024	Accepted

Table 8. The f2 values

Constructs	FSC	FSS	HS	IS	IWB
AL	0.025	0.034	0.027	0.017	0.078
FSC					0.081
FSS					0.032
HS					0.041
IS					0.067

Table 9. Prediction values.

	Q ² predict	RMSE	MAE	R ²
FSC	0.013	1.006	0.671	0.025
FSS	0.02	1.002	0.692	0.033
HS	0.014	1.003	0.735	0.026
IS	0.005	1.011	0.692	0.016
IWB	0.069	0.981	0.665	0.711