



Leadership effects on innovation propensity: A two-factor full range leadership model[☆]

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ABSTRACT

This paper examines the leadership dimensions of the full range leadership model in Pakistan and the relation of leadership to innovation propensity for a sample of 548 participants. Analysis of data using exploratory and confirmatory factor analysis, and structural equation modeling yields results that do not identify the leadership dimensions of transformational, transactional and laissez-faire leadership. Rather, the study identifies two distinct leadership dimensions, namely active leadership and passive-avoidant leadership and explores the relation between these leadership dimensions and innovation propensity. Results show that active leadership has a strong and significant positive effect on innovation propensity, while passive-avoidant leadership has a significant but weakly positive effect on innovation propensity. The study concludes that these leadership styles offer unique insight into the nature of leadership behaviors in Pakistani organizations and the influence that such behaviors have on innovation propensity.

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1. Introduction

The present study enhances understanding of the applicability of western leadership concepts in a non-western context. The study explores the conceptual dimensions of the full range leadership (FRL) model (Bass & Avolio, 2004b) in Pakistan and how leadership dimensions affect innovation propensity. The majority of leadership researchers conceptualize and conduct studies in developed countries while limits of the current understanding of the dynamics of leadership concepts in non-western contexts remain (Fein, Tziner, & Vasiliu, 2010; Shahin & Wright, 2004). Even as business research in developing countries increases, western thought continues to dominate business theory and practice (Hopper, Tsamenyi, Uddin, & Wickramasinghe, 2009). A greater need to investigate leadership styles in different countries arises from the variation in preferences for different leadership styles from one culture to another (Smith & Peterson, 1988). Such research improves understanding of the usefulness and validity of western leadership concepts in non-western contexts and assists in identifying different dimensions of leadership to inform to a better degree both the practice and development of leadership skills.

Examination of the relation between leadership and innovation is pertinent as leaders positively influence outcomes of innovation processes (Den Hartog & Verburg, 1997; Howell & Avolio, 1993). Bowen,

Rostami, and Steel (2010) report the positive relation between innovation and future firm performance. Innovation management is a difficult process which requires consistent support and involvement (Ireland & Hitt, 1999). Examination of the leadership–innovation connection is important in a developing country context as organizations often face intense competition, institutional instability (Farashahi & Hafsi, 2009) and macroeconomic volatility (Tybout, 2000). The dynamic business conditions in developing countries pose challenges to leaders in an environment where organizational disposition towards innovation is a key contributor to gaining and sustaining competitive advantage for survival (Perry-Smith, 2006; Puranam, Singh, & Zollo, 2006). The current study examines the hitherto underexplored nature of the relation between leadership and innovation propensity for organizations in Pakistan.

2. Theoretical framework

Attempts to identify and explain various dimensions of effective leadership generate substantial social and organizational research on leadership behaviors and styles. A considerable portion of leadership research focuses on transformational, transactional and laissez-faire leadership styles (Antonakis, Avolio, & Sivasubramaniam, 2003). Together, these dimensions of leadership constitute the full range leadership (FRL) model. Transformational leaders provide a vision, inspire, and motivate employees, as well as instilling a sense of follower self-confidence (Bass & Avolio, 1993). In contrast, transactional leaders focus on managing mistakes, have lower performance expectations and do not empower their employees (Masi & Cooke, 2000). Xirasagar (2008) considers the laissez-faire style as non-leadership behavior in that a leader tries to

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relinquish his or her responsibility and does not show concern for followers.

The study of leadership concepts in developing countries results in inconsistent findings that often contradict expected outcomes from developed country contexts (Pillai, Scandura, & Williams, 1999; Shahin & Wright, 2004). The current paper explores the structure of the FRL model in a developing country context, namely Pakistan, and examines the effects of identified FRL dimensions on the important variable of innovation propensity.

2.1. The full range model of leadership

Bass and Avolio's (2004b) FRL model incorporates nine leadership factors including idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception active, management-by-exception passive, and laissez-faire. Conceptually, these factors describe three broader leadership typologies: transformational leadership, which incorporates idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration; transactional leadership incorporates contingent reward, management-by-exception active and management-by-exception passive; and finally the laissez-faire leadership dimension (Bass & Avolio, 2004b).

2.2. Transformational leadership

Transformational leadership correlates with positive individual and organizational outcomes (Jung, Wu, & Chow, 2008; Masi & Cooke, 2000). Transformational leaders encourage followers to achieve higher-order needs like self-esteem and self-actualization (Bass, 1985), and are instrumental in enhancing followers' motivation towards self-sacrifice and achievement of organizational over personal goals (Bass, 1995).

Leaders with idealized influence show deep concern and awareness of followers' needs and create a sense of shared risk taking (Jung et al., 2008). Inspirational motivation provides a source of encouragement and challenges followers to achieve their goals, while intellectual stimulation encourages followers to be more innovative and creative in their problem solving. Transformational leaders value their relationships with followers and show individualized consideration in addressing their needs for empowerment, personal growth, achievement, and enhanced self-efficacy (Eden, 1992; Jung et al., 2008).

2.3. Transactional leadership

The sub-constructs of contingent reward and management-by-exception underlie the concept of the transactional leadership style. Transactional leaders use contingent rewards to clarify performance expectations to followers and encourage good performance (Nielsen & Lassen, 2012; Xirasagar, 2008). Transactional leaders focus on contractual agreements as primary motivators (Bass, 1985) and employ extrinsic rewards in order to enhance followers' motivation. Bono and Judge (2004) report that the transactional style impedes creativity and can negatively influence employee job satisfaction. Management-by-exception posits leaders' behavior in terms of timely detection of deviations from expected follower behavior.

2.4. Laissez-faire leadership

The laissez-faire leadership style is essentially a lack of leadership that manifests itself as non-leadership behavior with a tendency towards escaping responsibilities. Laissez-faire leaders show less involvement in important organizational matters and try to delay their response to critical issues (Bass & Avolio, 2004b). Research reports that laissez-faire leaders are inattentive to productivity and

the necessary completion of duties (Downey, Papageorgiou, & Stough, 2006). Avoidance of intervention is a key characteristic of the laissez-faire leadership style (Lievens, Van Geit, & Coetsier, 1997). These avoidance behaviors result in high levels of frustration among followers and low levels of follower self-esteem (McCull-Kennedy & Anderson, 2005). Laissez-faire leaders display little concern for followers' actions and their subsequent impact on organizational performance. Lievens et al. (1997) suggests that this non-transactional approach does not set standards nor provide feedback on results for subordinates and leads to follower demotivation.

2.5. Variation in the factor structure of the full range leadership model

Criticisms of the models underlying factor structure arise in over 15 years of research employing the Multifactor Leadership Questionnaire (MLQ) as a measure of the dimensions of the FRL model (Antonakis et al., 2003; Judge & Piccolo, 2004; Shahin & Wright, 2004; Yukl, 1999). In particular, research in varying contexts suggests that the primary nine-factor structure put forward by Bass and Avolio (2004b) is not as stable as the FRL model implies (Bycio, Hackett, & Allen, 1995; Carless, 1998b). Researchers report weakness in the appropriateness and applicability of western management theory in non-western contexts across a variety of organizational studies, including leadership studies (Ardichvili & Gasparishvili, 2001; Ford & Ismail, 2006; Kiggundu, Jørgensen, & Hafsi, 1983; Pillai et al., 1999). These findings reinforce the importance of a careful examination of the conceptualization of the FRL model in different cultural contexts.

The literature reports considerable variation in the factor structures of the MLQ in different work contexts. Tracey and Hinkin (1998) report a single valid factor; essentially that of transformational leadership. Tepper and Percy (1994) and Bycio et al. (1995) suggest a possible two-factor explanation of the model, though the two factors from each study vary in the nature of their sub-component structures. While Bass and Avolio (2004b) propose a nine-factor structure, a range of studies identify further three, four, five, and six factor explanations of the model with variation among the structure of factors existing across studies with the same number of factors (Alonso, Saboya, & Guirado, 2010; Avolio & Bass, 1999; Bycio et al., 1995; Carless, 1998a; Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999; Geyery & Steyler, 1998; Hater & Bass, 1988; Kanste, Miettunen, & Kyngas, 2007; Koh, Steers, & Terborg, 1995; Lievens et al., 1997). Interestingly, research by Koh et al. (1995) in Singapore represents the only one of the above studies from a non-western (North America/Western Europe) country.

Variations in factor structures highlight key concerns over the discriminate validity of the scales of the MLQ and the underlying FRL model. However, a study by Antonakis et al. (2003) including over three thousand respondents, shows strong support for a nine-factor model as the best representation of the MLQ's factor structure. Importantly, Antonakis et al. (2003) suggest that the context in which measurement takes place be given serious consideration in theoretical conceptualization and validation studies, and stress a need for greater research in different national contexts to determine the validity of the model and leadership measurement across cultures. Despite variation and debate on the factor structure of the FRL model, the literature suggests significant support for the predictive validity of the model using both objective and subjective measures of performance (Antonakis et al., 2003; Naranjo-Valencia, Jiménez-Jiménez, & Sanz-Valle, 2011).

2.6. Full range leadership model in developing country contexts

Bass (1997) asserts the universal potential of the transformational-transactional leadership paradigm in transcending national borders. Following this assertion, researchers report studies of leadership styles using the MLQ in developing countries such as, Turkey (Erkutlu, 2008; Gumusluoglu & Ilsev, 2009a, 2009b), Pakistan (Bodla & Nawaz, 2010;

Khan, Rehman, & Fatima, 2009; Pardo-del-Val, Martínez-Fuentes, & Roig-Dobón, 2012; Tipu, Ryan, & Fantazy, 2012), India (Krishnan, 2004), Palestine (As-Sadeq & Khoury, 2006), Malaysia (Ismail et al., 2009; Wood & Jogulu, 2006), Kazakhstan (Ardichvili & Gasparishvili, 2001), China (Walumbwa & Lawler, 2003), Jordan (Sabri, 2008), Thailand (Muenjohn & Armstrong, 2007), Egypt (Shahin & Wright, 2004), South Africa (Shokanie, Stanz, & Slabbert, 2004), and Kenya (Walumbwa & Lawler, 2003).

A large number of these studies take a one-dimensional examination of the full range model of leadership and only explore the dynamics of a single concept, for example transformational leadership (Abeysekera & Jayakody, 2011; Ayman, Korabik, & Morris, 2009; Erkutlu, 2008; Gumusluoglu & Ilsev, 2009a; Tipu et al., 2012; Walumbwa & Lawler, 2003). The majority of studies identified lend support to the view that transformational leadership positively affects organizational performance and employees' satisfaction in developing country contexts. Erkutlu (2008) reports that transformational leadership positively affects employees' job commitment and satisfaction in a Turkish sample, while Gumusluoglu and Ilsev (2009a) note a positive impact of transformational leadership on organizational innovation. Walumbwa and Lawler (2003) identify a positive relation between transformational leadership and work-related outcomes in India, China and Kenya. Krishnan (2004) reveals that transformational leadership is positively related to followers' upward influence strategies such as friendliness and reasoning in an Indian sample, while Ismail et al. (2009) identify a mediating effect of empowerment in the relation between transformational leadership and service quality in Malaysia. Fein, Vasiliu, and Tziner (2011) also identify an interesting link between work values and preferences for transactional or transformational leadership styles in Romanian managers, though not from the FRL model perspective.

Only a few of the aforementioned studies examine the complete set of leadership dimensions described in the FRL model. Sabri's (2008) investigation of Jordanian managers' leadership styles reports that followers prefer a transactional style over a transformational style. Ardichvili and Gasparishvili (2001) identify managers in post-communist countries (Russia, Georgia, Kazakhstan, Kyrgyz Republic) most frequently employing transactional leadership by offering contingent rewards to followers, while the laissez-faire style is not prevalent. However, while these studies employ the full range of leadership dimensions in the FRL model they fail to examine the underlying factor structure of the MLQ for the participant sample. Rather, they assume a standard FRL conceptualization of leadership in their research context. Similar to the findings of Ardichvili and Gasparishvili (2001), As-Sadeq and Khoury (2006) also report that Palestinian managers most frequently use the transactional leadership style, while Shokanie et al. (2004) report that South African managers prefer to use a combination of transformational and transactional leadership styles.

A review of the literature identifies three studies that employ the MLQ in Pakistan. Khan et al. (2009) reveal a significant impact of transformational leadership on organizational innovation. Importantly, their study only partially employs the MLQ, considering only transformational dimensions of leadership behavior with no factor structures. Tipu et al. (2012) take a similar approach, but do report on the factor structures for measures. Bodla and Nawaz (2010) examine three leadership styles but their results are largely descriptive and fail to report factor structures of the MLQ. The weaknesses of the three studies highlight the need for research that more rigorously examines conceptualizations of leadership styles within the FRL model in Pakistan.

Though Bass (1996) makes initial claims for a degree of universality in the FRL model, he also recognizes the need to make some adjustments to the paradigm for application in a non-western context. While some studies explore leadership styles drawing upon transformational–transactional leadership concepts in different cultures, relatively few studies examine the FRL model in developing nations, particularly Pakistan. The present study addresses the gap in the literature by applying the FRL model in Pakistan. In doing this, the

study aims to improve understanding of the structure and appropriateness of the FRL model and measures, and examines the relation between leadership dimensions and innovation propensity in the context of Pakistan. The nature of the research is essentially exploratory. However, the current study begins with one testable hypothesis.

H1. The factor structure of the full range leadership model in the current sample contains nine factors consistent with the nine factors proposed by Bass and Avolio (2004b).

2.7. Innovation propensity

Innovation encompasses different organizational mechanisms such as experimentation, creativity, novelty, and a firm's tendency to support new ideas for achieving competitiveness in a dynamic business environment (Daft, 1978; Lumpkin & Dess, 1996). A range of terms such as innovation propensity, organizational innovation, or innovativeness elucidate the notion of innovation (McFadzean, O'Loughlin, & Shaw, 2005). No single, mutually agreeable definition of innovation exists within the field of innovation research.

The concept of innovation propensity provides a multi-perspective lens for exploring the notion of innovation taking into account synonymous concepts such as innovativeness and organizational innovation. According to Dobni (2008a), propensity to innovate is the degree to which an organization is inclined to achieve a state of innovativeness through the support of appropriate organizational architecture. Cultural acceptance of innovation strengthens the necessary architecture and enhances the disposition of an organization towards innovation (Carayannis & Provan, 2008). The concept of innovation propensity serves as a precursor to the notion of organizational innovation, which is broadly described as the adoption of a new idea or behavior by an organization (Damanpour, 1991). Thus, the propensity of an organization to innovate assists in explaining the degree of innovativeness.

Huiban and Bouhsina (1998) relate innovation propensity to the ability of an organization to innovate. Innovation propensity underlines the disposition of an organization to introduce new products or services which can make existing skills, organizational routines and financial investments obsolete (Chandrashekar, Mehta, Chandrashekar, & Grewal, 1999; Chandy & Tellis, 1998). Propensity to innovate correlates positively with the research, design and development activities of organizations (Macpherson, 1997), leading to an increase in the likelihood of product or service innovation (Nijssen, Hillebrand, Vermeulen, & Kemp, 2006).

Similarity in the concepts of innovativeness and innovation propensity sees the interchangeable use of the two terms (Carayannis & Provan, 2008; Kamaruddeen, Yusof, & Said, 2009; Nijssen et al., 2006; Parker, 2012). Kamaruddeen et al. (2009) describe innovativeness as a propensity for organizations to adopt innovative products and systems. Thus, innovativeness reflects the tendency of an organization to engage in innovative behavior (Lumpkin & Dess, 1996). The behavioral dimension of innovation propensity is an important consideration in understanding how organizational leaders affect innovation propensity.

Dobni (2008a) suggests that organizational managers and leaders play a key role in determining the innovation propensity of an organization. Organizational capability and disposition are crucial in successfully developing and implementing innovative projects (Kamaruddeen et al., 2009). Leaders create organizational capability and disposition through sharing an innovation-promoting vision with their members (Hansen & Kahnweiler, 1997; Papadakis & Bourantas, 1998), hiring and supporting champions of innovation-orientated change (Kanter, 1985), and instilling a sense of strong innovation culture that rewards productive work. In short, followers are more likely to innovate if leaders provide support (Basu & Green, 1997).

The measurement of innovation tends to assess individual propensity to innovate through the use of direct measures of innovation

such as frequency counts of innovations (Bunce & West, 1996; Burningham & West, 1995; Gray, 2006; He & Wong, 2009; Moura-Leite, Padgett, & Galan, 2012; Ong, Wan, & Chng, 2003), or draw upon secondary data sources of innovation (Frenz & Ietto-Gillies, 2007; Huiban & Bouhsina, 1998; Roper, Love, Ashcroft, & Dunlop, 2000). These measures present difficulties with regard to their application in a developing country context such as Pakistan, where secondary data sources are either unreliable or unavailable. In addition, direct measures of innovation outputs say little about the organization's contextual influence on innovation, which is the focus of the current study.

Wang and Ahmed (2004) propose a self-reported organizational innovativeness construct including dimensions of innovativeness such as strategic, product, market, process, and behavioral. The scale is comprehensive and effectively deals with various dimensions of innovation propensity. However, the measure requires managerial-level knowledge of organizational finances, marketing and competitor information to which ordinary organizational members may not be privy.

Dobni (2008b) proposes a measure of innovation propensity better suited to the needs of the current study. The nine-item scale assesses the degree to which an organization establishes architecture to develop and sustain innovation. Respondents to this measure identify the degree to which their organization communicates the existence of innovation-supporting architecture through vision, goals, and objectives, and establishes business processes to operationalize and sustain innovation. The measure is suitable for completion by ordinary organizational members, focusing on their experience of the organizational environment relating to innovation, and does not require knowledge of dimensions of the business with which they may not be familiar.

2.8. Innovation propensity and the full range leadership model

The FRL model encompasses leadership dimensions that influence innovation propensity. Particularly, transformational leadership is a catalyst in enhancing innovation (Gardner & Avolio, 1998; Howell & Avolio, 1993; Lowe, Kroeck, & Sivasubramanian, 1996). While Menguc, Auh, and Shih (2007) fail to find a significant relation between transformational leadership and innovation, the extant literature identifies a broadly positive relation between the two concepts (Crawford & Strohkirch, 2000; García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012; Reuvers, Van Engen, Vinkenburg, & Wilson-Evered, 2008). The leadership dimensions of idealized influence and inspirational motivation help transformational leaders to transform the behavior of their followers, as leaders act as role models and inculcate innovation values, followers look towards them and try to embrace their values (Yukl, 2002).

Leaders employing intellectual stimulation behaviors encourage diversity of opinion and the generation of creative ideas among their followers (Bundy, 2002), while displaying individual consideration for followers provides a protective environment so that organizational members take risks and innovate (Nutt, 2002).

The literature reveals mixed results with regard to the relation between transactional leadership and innovation. In comparison to transformational leadership, research less often associates transactional leadership style with successful innovations (Dess & Picken, 2000; Manz, Barstein, Hostager, & Shapiro, 1989). Moriano, Molero, Topa, and Lévy Mangin (2011) report a significant negative effect of transactional leadership on intrapreneurial behavior. In the same vein, Lee (2008) finds an inverse relation between transactional leadership and innovativeness. In contrast, Elenkov and Manev (2005) find a positive effect of transactional leadership on innovation and report similar effects of transformational and transactional styles on organizational innovation. Research suggests that both styles can complement each other to influence performance (Howell & Avolio, 1993; Waldman, Ramirez, House, & Puranam, 2001) as many transactional managers supplement their behaviors with elements of transformational leadership (Elenkov, 2002).

Transactional leaders employ different approaches for managing innovation. The focus of transactional leadership is on clarifying expectations and standards to followers (Bass & Avolio, 2004b). Transactional leaders prefer to monitor actively the performance of followers due to the performance basis of contingent rewards (Jung, 2001). This leadership style reflects a high degree of structure that is not necessarily supportive of innovation. Lowe et al. (1996) identify a clear hierarchy in the relative effectiveness of leadership styles in the FRL model with transactional leadership coming in the middle, between transformational leadership at the top and laissez-faire leadership at the bottom. In line with the extant literature and considering the contradictory results from the literature, transactional leadership may support innovation but the relative strength of the effect is probably less than that of transformational leadership.

The literature identifies a generally negative relation between laissez-faire leadership and innovation (Crawford, Gould, & Scott, 2003; Elenkov & Manev, 2005; Mukherjee, Lahiri, Mukherjee, & Billing, 2012; Parnell, Lester, Long, & Köseoglu, 2012). The laissez-faire style does not support organizational change, yet the essence of innovation is to challenge the status quo. Encouraging innovation in an organization requires support for embracing new ideas and discarding traditional approaches. On the contrary, laissez-faire leaders prefer to let things stagnate and see change as a threat to the status quo (Crawford et al., 2003).

Innovation is a difficult process to manage and requires overcoming considerable obstacles (Senge, 1990). Ireland and Hitt (1999) identify top management support and involvement as a key requirement for promoting innovation. Avoidant or non-leadership behavior manifest in the laissez-faire style inculcates an environment that lacks top management involvement and support. Laissez-faire leaders display indifference towards the needs of their followers, avoidance of leader-follower interactions, and a lack of interest in the motivation of subordinates (Sosik & Dionne, 1997). These behaviors indicate a leadership style likely to have an adverse effect on the organization's ability to innovate.

Without presupposing the dimensions of leadership within the context of organizations in Pakistan, the current study initially assumes the accuracy of hypothesis H1 and the existence and validity of the transformational, transactional and laissez-faire dimensions of leadership. This assumption results in the following tentative hypotheses that predict relations between transformational, transactional and laissez-faire leadership to be in line with the majority of the existing literature.

H2a. Transformational leadership positively affects innovation propensity.

H2b. Transactional leadership positively affects innovation propensity though the strength of the affect is less than that of transformational leadership.

H2c. Laissez-faire leadership negatively affects innovation propensity.

3. Method

3.1. Sample

The sample includes 548 English-speaking business professionals from a variety of Pakistani organizations. Industry segmentation includes several industry types with the largest proportion of respondents working in the financial services and IT sectors (Financial services 23.2%, IT 19.3%, Other 16.1%, Education 6.6%, Pharmaceutical 6%, Chemical 5.7%, Electronics 4.9%, Retail 2.6%, Hospitality 2.4%).

The categories of fewer than 30 employees, between 30 and 100 employees, and more than 100 employees capture the dimensions of small, medium and large enterprises in this study. Dasanayaka (2008) reports the use of these categorizations in prior research in

Pakistan. In the current study 17.5% of participants come from small organizations, 34.5% come from medium-sized organizations and 48.0% come from large organizations.

Given the use of a snowball sampling technique, the concept of response rate is not directly applicable. The sample comprises 69% males and 31% females. The underrepresentation of women in the study is indicative of the existing gender bias in workforce participation among women in Pakistan (Raza, 2007). Participants' age range is 19 to 70 years ($M = 30.95$, $SD = 7.3$). Respondents' organizational tenure is an average of 4.1 years. 9.5% of respondents hold a higher college diploma, 38.0% hold a university bachelor degree, and 37.5% hold a postgraduate qualification. 71.5% of participants work for private companies.

3.2. Data collection

The current study employs a snowball sampling technique. While a more scientific method of sampling is preferable, the unavailability of reliable organizational data and infrastructural inadequacies compound sampling difficulties in developing countries such as Pakistan (Elahi, 2008; Nasif, Al-Daeaj, Ebrahimi, & Thibodeaux, 1991; Sekaran, 1983). Developed countries offer easy accessibility to secondary data for the identification of research populations and development of sampling frames. Such accessibility is not common in developing country contexts. Reference materials for the construction of sampling frames are often non-existent, or essentially worthless due to their incomplete/inaccurate nature. Consequently, the current study employs the contextually appropriate convenience technique of snowball sampling. Harzing and 32 country collaborators (2005) suggest the use of confederates to support data collection when using this technique. Confederates provided respondents in the current study with a paper-and-pencil survey containing a full version of the MLQ 5x (Bass & Avolio, 2004a), a measure of innovation propensity (Dobni, 2008b) and a biographical data questionnaire. Respondents completed the leadership questionnaire with reference to the leadership style of their immediate superior/manager. The survey process ensured confidentiality and respondents did not provide any private or uniquely identifying information. Data were obtained from a wide range of organizations, varying in size and function, in order to minimize the influence of background and confounding variables and increase the empirical validity of the findings (Nguyen & Mohamed, 2011).

3.3. Instruments

The current study measures leadership with the Multifactor Leadership Questionnaire (MLQ 5x) (Bass & Avolio, 2004a). The MLQ purports to measure nine dimensions of leadership. Sample statements for each dimension are italicized. The transformational leadership dimensions include: idealized influence (attributed) "*Instills pride in me for being associated with him/her*", idealized influence (behavior) "*Talks about his/her most important values and beliefs*", inspirational motivation "*Talks optimistically about the future*", intellectual stimulation "*Seeks differing perspectives when solving problems*", individual consideration "*Spends time teaching and coaching*". The transactional dimensions include contingent reward "*Provides me with assistance in exchange for my efforts*", management-by-exception (active) "*Focuses attention on irregularities, mistakes, exceptions, and deviations from standards*", and management-by-exception (passive) "*Waits for things to go wrong before taking action*". The final dimension is laissez-faire leadership "*Avoids getting involved when important issues arise*". Four statements relate to each of the nine dimensions in the MLQ. Bass and Avolio (2004b) report acceptable scale reliabilities ranging from a Cronbach's α of 0.74 to 0.94. The MLQ statement anchors on a five point Likert-type scale are: 0 = *not at all*, 1 = *once in a while*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *frequently, if not always*.

The current study utilizes Dobni's (2008b) measure of innovation propensity. The measure contains nine statements that relate to the strategies and processes of an organization's support for innovation. Sample statements include "*Innovation is a core value in this organization*" and "*We have an innovation vision that is aligned with projects, platforms, or initiatives*". Dobni (2008b) reports a scale reliability with Cronbach's α of 0.71 with items in the scale displaying factor loadings between 0.41 and 0.76. The statement anchors on a five-point Likert-type scale are: 0 = *strongly disagree*, 1 = *disagree*, 2 = *neutral*, 3 = *agree*, and 4 = *strongly agree*.

3.4. Pre-analytical examination of the data

Consideration was given to common method bias due to the self-report nature of data in the study (Podsakoff, MacKenzie, Jeong-Yeon, & Podsakoff, 2003). Harman's (1967) one factor test determines if common method variance is a significant issue. An unrotated exploratory factor analysis of all data, as per the guidelines of Harman's one factor test, did not yield a single factor. The analysis identifies twelve factors accounting for 56.13% of the covariance within the sample. 22.20% is the highest percentage of variance explained by a single factor. Results suggest that common methods bias is not a significant concern.

In addition to the exploration of common method bias, the current study also considers the normality of the data. The current study employs maximum likelihood factor analysis as an analytical tool, an underlying assumption of which is multivariate normality of data. While non-normal data can weaken analysis, this type of data does not necessarily invalidate the analysis (Frazer, 2001; Mousa & Wales, 2012; Tabachnick & Fidell, 1996). Considering the ongoing debate over the power of existing multivariate tests (Farrell, Salibian-Barrera, & Nacz, 2007), a sub-optimal, though acceptable, solution to multivariate normality testing is the testing of univariate and bivariate normality in support of the assumption of multivariate normality (Looney, 1995). An examination of probability–probability (P–P) and quantile–quantile (Q–Q) plots for data in the current study shows P–P and Q–Q plots for all variables following a closely fitting linear formation suggestive of univariate normality (Park, 2008). Stevens (1996) states that an additional characteristic of multivariate normality is the normal distribution of the linear relations of any combination of variables. The study explores this characteristic of the data using scatter plots. An examination of the scatter plots of randomly paired variables reveals generally circular and elliptical patterns. These results suggest bivariate normality of the data and support the assumption of multivariate normality (Burdenski, 2000). The more or less symmetric nature of the data suggests no practical normality related problems for analysis in the current study (Stewart, Barnes, Cudeck, Cote, & Malthouse, 2001).

4. Results

4.1. Examination of the measure of leadership

The first stage of analysis examines H1 and assumes the integrity of the factor structure of the MLQ. This hypothesis posits that the factor structure of the full range leadership model in the current sample contains nine factors consistent with the nine factors proposed by Bass and Avolio (2004b).

Fabrigar, Wegener, MacCallum, and Strahan (1999) suggest a maximum likelihood factor extraction as the most suitable method for identifying latent variables when assuming multivariate normality in real world data. A varimax rotation was employed with an a priori setting to retain nine factors to reflect the nine subscales of the MLQ (Bass & Avolio, 2004b). The results of this initial analysis do not support a factor structure reflective of the nine scales of the MLQ (see Table 1). Table 1 shows items across various dimensions of the

full range leadership model loading together in factors that are difficult to interpret and lack a theoretical or rational explanation.

These findings lead to the rejection of hypothesis H1. The rejection of H1 prompts an exploratory analysis of the MLQ to assist in identifying the underlying leadership constructs that are manifested in the current study.

The current study uses parallel analysis to identify the number of factors to retain as an alternative to the less accurate Kaiser criterion (Velcier & Jackson, 1990). Horn's (1965) parallel analysis determines the number of factors to retain by comparing observed eigenvalues extracted from the correlation matrix with those obtained from randomly generated uncorrelated normal variables (Ledesma & Valero-Mora, 2007). Parallel analysis using a syntax file for SPSS (O'Connor, 2000) indicates a two-factor solution.

At this stage of analysis the data were randomly split into two different sets of equal size labeled set A and set B. An exploratory factor analysis was conducted on data set A employing the maximum likelihood factor extraction method using varimax rotation. The analysis was set to retain two factors a priori, as informed by the parallel analysis. Table 2 displays the results.

The analysis yields two factors accounting for 39.0% of the variance. Factor one contains a total of 28 items with factor loadings ranging 0.57 to 0.25. A total of 18 items display an acceptable loading of 0.40 and above. Factor two contains a total of 8 items with factor loadings ranging from 0.61 to 0.27. A total of seven items display an acceptable loading of 0.40 and above. The study then confirms the existence of the two factors through the use of a confirmatory factor analysis using LISREL on

data set B. The measurement model proposed for the confirmatory factor analysis contains two factors. Factor one includes the 18 items with loadings above 0.40 (italicized in Table 2). Factor two contains the 7 items with loadings above 0.40 (italicized in Table 2).

The results in Fig. 1 show that the confirmatory factor analysis identifies a good fit to the measurement model. Researchers recommend the use of multiple fit criteria to rule out measuring biases inherent to various fit measures (Bollen & Long, 1993; Hair, Anderson, Tatham, & Black, 1995). The measurement model in Fig. 1 shows a good fit to the empirical data. In addition to an acceptable RMSEA, other goodness-of-fit indices for the model show the NFI = 0.95 (>0.90), the NNFI = 0.97 (>0.90), the GFI = 0.94 (>0.90), the AGFI = 0.92 (>0.80), and the CFI = 0.98 (>0.90). Numbers in brackets represent recommended values for each goodness-of-fit index. Additional evidence of acceptable fit of the model to the data is the ratio of chi-square to degrees of freedom. For the current model the ratio of 1.54 is below the recommended maximum of 3.0 (Chau, 1997; Hair et al., 1995). All items display factor loadings ranging from 0.40 to 0.72. The collection of items loading into the two factors shows acceptable Cronbach's alpha scale reliabilities for research purposes ($\alpha = 0.86$ and $\alpha = 0.73$ respectively).

Contrary to the separate leadership dimensions of Bass and Avolio (2004b), the current study suggests the existence of a theoretically justifiable leadership style that combines both transformational and transactional leadership behaviors. Elements of transformational leadership are evident in scale items of Fig. 1 relating to idealized influence, intellectual stimulation, and inspirational motivation, while elements of transactional leadership occur in scale items relating to

Table 1
Rotated factor matrix for factor analysis of the nine-factor solution to MLQ.

Scale item	Factor								
	1	2	3	4	5	6	7	8	9
MLQ7LaissezFaire	.72	-.11	-.08	-.09	-.04	.05	-.08	-.13	0.02
MLQ3MngtbyExceptPassive	.64	-.19	.00	.06	-.10	-.07	-.11	-.15	.10
MLQ5LaissezFaire	.61	-.05	.05	-.23	.06	-.06	-.11	-.19	.00
MLQ12MngtbyExceptPassive	.60	-.09	-.17	.08	-.07	.06	-.02	.16	-.05
MLQ28LaissezFaire	.50	.09	-.12	.00	-.07	.04	.03	.27	-.18
MLQ33LaissezFaire	.46	.11	.03	.10	-.04	-.07	.06	.24	-.07
MLQ20MngtbyExceptPassive	.33	.08	.14	.06	.14	-.07	.03	.11	.10
MLQ31IndividualConsideration	-.06	.58	.06	.19	.21	.06	-.04	.04	.04
MLQ30IntellectualStimulation	-.08	.53	.24	.15	.13	.14	.12	-.08	.06
MLQ21IdealizedInfluenceAttributed	-.10	.45	.17	.36	.16	.06	-.06	.05	.15
MLQ29IndividualConsideration	.06	.40	.18	.03	.00	.03	.17	.10	.12
MLQ34IdealizedInfluenceBehav	-.07	.33	.26	.04	.30	.12	.17	-.05	.06
MLQ15IndividualConsideration	.05	.29	.18	.14	.16	.18	.26	.17	.00
MLQ13InspirationalMotivation	-.05	.21	.65	.03	-.01	-.03	.04	.22	.17
MLQ22MngtbyExceptActive	-.16	.10	.46	.13	.26	.12	.25	.06	-.33
MLQ36InspirationalMotivation	-.07	.25	.37	.24	.21	.06	-.01	.02	.07
MLQ35ContingentReward	-.01	.35	.36	.22	.16	.03	.14	.04	-.05
MLQ18IdealizedInfluenceAttributed	-.09	.20	.33	.14	.16	.11	-.03	.06	-.04
MLQ26InspirationalMotivation	-.02	.21	.32	.19	.16	.10	.18	.05	.02
MLQ8IntellectualStimulation	.03	.02	.31	.21	.19	.06	.21	.24	.09
MLQ9InspirationalMotivation	-.04	.19	.31	.19	.16	-.06	.15	.02	.13
MLQ2IntellectualStimulation	.03	.05	.25	.09	.12	.08	.04	-.01	.06
MLQ19IndividualConsideration	.09	.12	.17	.52	.07	.05	-.02	.13	-.03
MLQ1ContingentReward	-.11	.21	.19	.44	.37	.03	.07	-.01	.05
MLQ10IdealizedInfluenceAttributed	.04	.20	.15	.42	.09	.17	.20	.02	.11
MLQ23IdealizedInfluenceBehav	-.06	.19	.14	.30	.13	-.02	.19	.01	.16
MLQ11ContingentReward	-.05	.28	.19	.02	.56	.02	.01	.11	.17
MLQ24MngtbyExceptActive	.01	.06	.13	.18	.39	.02	.10	.09	.02
MLQ14IdealizedInfluenceBehav	-.09	.28	.28	.14	.34	.06	.19	-.08	.08
MLQ16ContingentReward	.01	.26	.14	.22	.30	.12	.14	.03	.05
MLQ32IntellectualStimulation	-.10	.28	.20	.17	.10	.90	.02	.09	.10
MLQ4MngtbyExceptActive	-.19	.11	.15	.08	.13	-.02	.62	.16	.10
MLQ6IdealizedInfluenceBehav	.04	-.02	.23	.07	.09	.05	.10	.56	.11
MLQ17MngtbyExceptPassive	.20	.13	-.12	.20	.12	.07	.18	.26	.15
MLQ27MngtbyExceptActive	.00	.18	.12	.08	.15	.08	.10	.20	.46
MLQ25IdealizedInfluenceAttributed	-.12	.20	.20	.20	.20	.11	.20	-.00	.36

Table 2
Rotated factor matrix for exploratory factor analysis of the two-factor solution to MLQ.

Scale item	Factor	
	1	2
MLQ30IntellectualStimulation	.57	
MLQ21IdealizedInfluenceAttributed	.56	
MLQ1ContingentReward	.56	
MLQ14IdealizedInfluenceBehav	.54	
MLQ35ContingentReward	.54	
MLQ32IntellectualStimulation	.53	
MLQ36InspirationalMotivation	.53	
MLQ34IdealizedInfluenceBehav	.52	
MLQ31IndividualConsideration	.51	
MLQ25IdealizedInfluenceAttributed	.51	
MLQ11ContingentReward	.51	
MLQ22MngtbyExceptActive	.50	
MLQ26InspirationalMotivation	.49	
MLQ16ContingentReward	.47	
MLQ13InspirationalMotivation	.45	
MLQ15IndividualConsideration	.43	
MLQ10IdealizedInfluenceAttributed	.42	
MLQ23IdealizedInfluenceBehav	.41	
MLQ18IdealizedInfluenceAttributed	.39	
MLQ4MngtbyExceptActive	.39	
MLQ8IntellectualStimulation	.38	
MLQ9InspirationalMotivation	.38	
MLQ27MngtbyExceptActive	.37	
MLQ29IndividualConsideration	.36	
MLQ24MngtbyExceptActive	.34	
MLQ19IndividualConsideration	.32	
MLQ6IdealizedInfluenceBehav	.29	
MLQ2IntellectualStimulation	.25	
MLQ7LaissezFaire		.61
MLQ3MngtbyExceptPassive		.56
MLQ12MngtbyExceptPassive		.55
MLQ5LaissezFaire		.50
MLQ33LaissezFaire		.49
MLQ28LaissezFaire		.48
MLQ20MngtbyExceptPassive		.40
MLQ17MngtbyExceptPassive		.27

contingent reward and active management-by-exception. *Bycio et al. (1995)* identify a similar leadership structure in prior research and describe this combination of leadership dimensions as active leadership. Leaders use a combination of transactional styles and transformational styles to influence follower behavior. *Waldman, Bass, and Yammarino (1990)* associate such a leadership style with positive organizational and follower outcomes.

The second factor in *Fig. 1* shows a combination of scale items relating to passive management-by-exception and laissez-faire leadership. *Bass and Avolio (2004b)* articulate a leadership style reflective of the second factor as passive-avoidant. Despite a scarcity of research evidence in support of this combination of leadership dimensions in the literature, *Bass and Avolio (2004b)* report that many consultants using the MLQ for leadership development purposes conceptualize the combination of management-by-exception (passive) and laissez-faire leadership dimensions as a passive-avoidant leadership style. Passive-avoidant leaders only react to correct problems after they have become serious, and avoid decision making whenever possible. Research relates similar descriptions of this type of anti-leadership style with negative organizational and follower outcomes (*Bycio et al., 1995; Waldman, Bass, & Einstein, 1987*).

4.2. Examination of the measure of innovation propensity

The 9 items of *Dobni's (2008b)* innovation propensity scale were also explored using factor analysis. A maximum likelihood factor analysis with an a priori setting to extract one factor yields a single factor accounting for 32.4% of variance. All items have a factor loading of

above 0.5. An examination of scale reliability shows an acceptable score for Cronbach's alpha ($\alpha = 0.82$). These findings are in line with *Dobni's (2008b)* original description of the instrument suggesting no need for further analysis. *Table 3* presents descriptive statistics of range, mean and standard deviation for the three measures of active leadership, passive-avoidant leadership and innovation propensity.

4.3. Refinement of hypotheses: the examination of the effect of active leadership and passive-avoidant leadership on innovation propensity

The rejection of hypothesis *H1* leads to the discarding of *hypotheses H2a, H2b and H2c*. These initial hypotheses assume that the leadership dimensions of transformational, transactional and laissez-faire leadership are valid in the current context. Prior examinations of the factor structure of the MLQ highlight this assumption as invalid. Instead of leadership dimensions of transactional, transformational and laissez-faire leadership, the current study identifies the leadership dimensions of active leadership and passive-avoidant leadership. The novel results of the factor structure shown previously prompt the authors to take the unorthodox step of presenting new hypotheses. These new hypotheses propose a set of relations between active leadership, passive-avoidant leadership and innovation propensity.

H3. Active leadership positively affects innovation propensity.

H4. Passive-avoidant leadership negatively affects innovation propensity.

The literature does not widely report on these dimensions of active leadership and passive-avoidant leadership. An examination of their relation to innovation is essentially exploratory. The current study infers the hypothetical relations between active leadership, passive-avoidant leadership and innovation propensity from the prior review of existing literature on similar leadership concepts.

In the case of *H3*, the rationale for proposing that active leadership positively affects innovation propensity finds support in the combination of transformational and transactional MLQ scale items seen in the factor structure for active leadership in *Fig. 1*. The literature suggests that transformational leadership positively influences innovation propensity. The influence of transactional leadership on innovation propensity shows limited and mixed but broadly positive results. Consequently, this association of items within the single factor of active leadership suggests a broadly positive leadership style. Conversely, laissez-faire leadership displays a negative relation to innovation propensity. Combining laissez-faire leadership dimensions with passive management-by-exception leadership behaviors suggests a potentially negative influence of passive-avoidant leadership on innovation propensity. *H4* reflects this negative inference. *Fig. 2* represents the relations between innovation propensity, active leadership and passive-avoidant leadership in a simple structural model.

A structural equation model tests the relations in *hypotheses H3 and H4*. The model in *Fig. 3* examines the influence of active leadership and passive-avoidant leadership on innovation propensity. The full structural model in *Fig. 3* includes both observed and latent variables.

The model displays a very good fit to the data with goodness-of-fit indices exceeding critical values indicative of good fit (*Bollen & Long, 1993*). In addition to the RMSEA, other goodness-of-fit indices for the model show the NFI = 0.94 (>0.90), the NNFI = 0.98 (>0.90), the GFI = 0.92 (>0.90), the AGFI = 0.91 (>0.80), and the CFI = 0.98 (>0.90). The ratio of chi-square to degrees of freedom of 1.43 is also below the recommended maximum of 3.0 (*Chau, 1997; Hair et al., 1995*). All observed variables show loadings to latent variables of 0.40 and above. The model also confirms *H3*. The model indicates that active leadership relates positively to innovation propensity (standardized $\beta = 0.72$). The relation between the two variables is highly significant ($t = 10.33$; $P < .001$). The model also leads to the

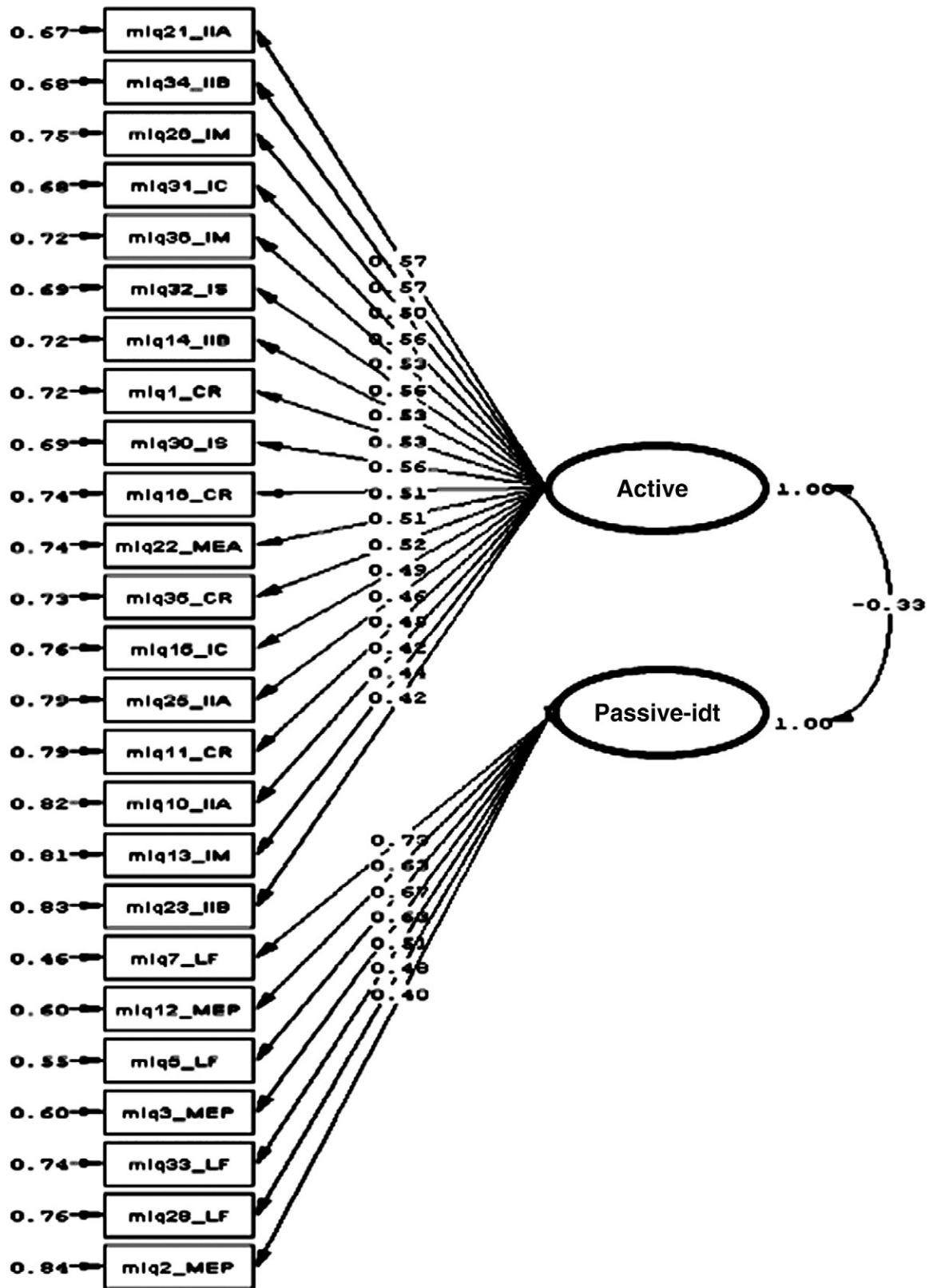


Fig. 1. A two-factor confirmatory factor analysis using structural equation modeling.

rejection of H4: passive-avoidant leadership negatively affects innovation propensity. Interestingly, the results of the structural model show a positive relation between passive-avoidant leadership and

innovation propensity in the current context. The strength of the relation is weak (standardized $\beta=0.13$), though significant ($t=2.4$; $P<0.05$).

Table 3

Descriptive statistics for the variables of active leadership, passive-avoidant leadership and innovation propensity.

Descriptive statistics							
	N	Range	Min	Max	Mean	Std. dev.	Variance
Active leadership	548	3.45	.39	3.84	2.28	.58	.33
Passive-avoidant leadership	548	3.83	.00	3.83	1.73	.81	.66
Innovation propensity	548	4.00	.00	4.00	2.24	.65	.43

5. Discussion

Results of the current study advance understanding of the applicability of the FRL model in a non-western context. Findings do not support the nine-factor structure of Bass and Avolio (2004b). Rather, results argue for a simpler two-factor model of leadership comprising active leadership and passive-avoidant leadership. A significant challenge in understanding the current results with reference to existing literature is the substantial development and refinement of the FRL model and measurement tools over the last 20 years.

In the current study, the dimension of active leadership includes scale items relating to the transformational leadership concepts of idealized influence, intellectual stimulation, individual consideration and inspirational motivation, in addition to the transactional leadership concepts of contingent reward and active management-by-exception. An examination of the literature does not reveal extensive evidence for this combination of theoretical leadership concepts. However, this lack of prior evidence may be a consequence of the lack of extensive examinations of the MLQ within the context of the current study, namely Pakistan.

The cultural context of Pakistan represents a high power distance culture (Hofstede, 1985). As such, the hitherto scarcely observed correlations between supposedly distinct western leadership concepts are not contradictory. In such a context, subordinates may expect leaders operating with predominately transformational styles to also apply transactional leadership behaviors, as appropriate. Modern leadership research stresses the importance of understanding leadership within the contextual conditions in which leadership takes place (Antonakis et al., 2003; Shahin & Wright, 2004). The current findings offer an insight into leadership structures within the context of Pakistan.

Though somewhat contrary to prior descriptions of the distinction of transformational and transactional leadership dimensions, the current findings are not without precedent. Garman, Davis-Lenane, and Corrigan (2003) identify a robust relation between transformational leadership dimensions, active management-by-exception and contingent reward. Cross-cultural research on leadership styles of Mexican managers also shows interesting combinations of charismatic and directive leadership behaviors, further supporting the existence of unique leadership prototypes in different cultural settings (Howell, Romero, Dorfman, Paul, & Bautista, 2003). Judge and Piccolo's (2004) meta-analytic examination of the validity of the transformational and transactional leadership dimensions also identifies strong positive

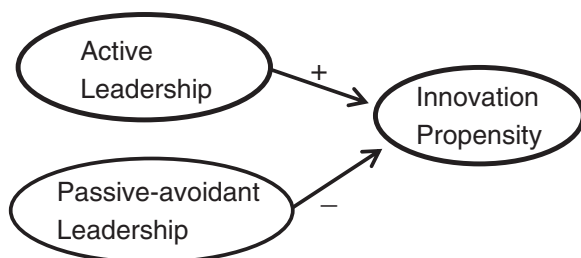


Fig. 2. A proposed structural model of the relation between active leadership, passive-avoidant leadership and innovation propensity.

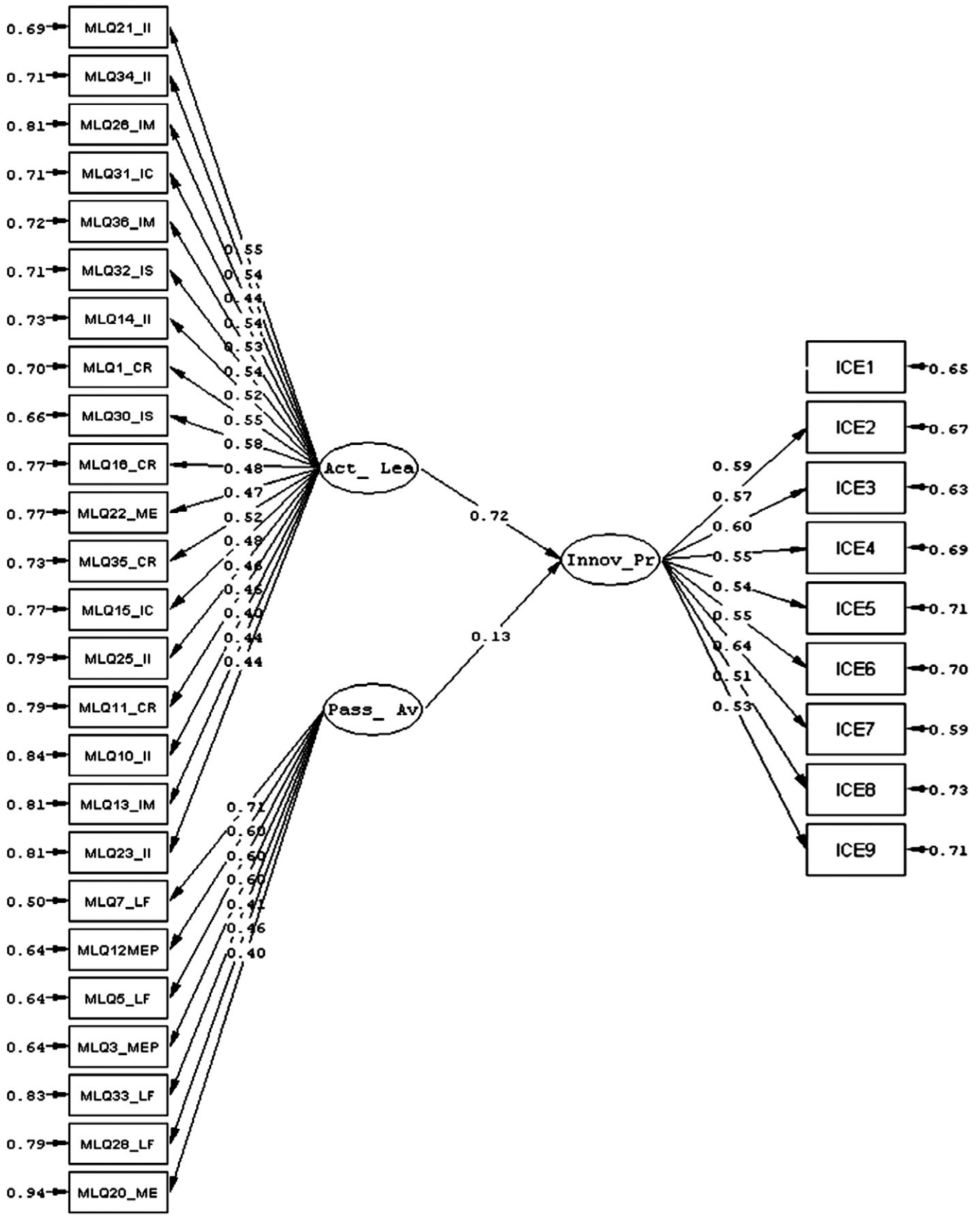
correlations between dimensions of transformational leadership and the dimension of contingent reward. This relation is evident in these scale items loading strongly (above 0.4) into the factor of active leadership in the current study. Such findings suggest that the assumption of the existence of distinct leadership dimensions of transformational and transactional leadership is questionable.

Findings by Bycio et al. (1995) also inform the results of the current study. Bycio et al. (1995) propose a strong rationale for a two-factor model based on the positive correlation of dimensions of charismatic leadership with individual consideration, intellectual stimulation, and contingent reward. Bycio et al. (1995) also apply the label active leadership to this combination of dimensions. In contrast, Bycio et al. (1995) apply the label of passive leadership to the negatively correlating dimension of management-by-exception. Medley and Larochelle (1995) also present an argument for considering active and passive dimensions of leadership as a best representation of the FRL model. Importantly, the active and passive dimensions of the management-by-exception concept are not differentiated in the MLQ at the time of research by Bycio et al. (1995). This lack of differentiation is because at the time of the research, the FRL model proposed only five dimensions (charismatic leadership, individualized consideration, intellectual stimulation, contingent reward, and management-by-exception) (Bycio et al., 1995; Medley & Larochelle, 1995). More recent iterations of the FRL model and the MLQ measure expand the concept of charismatic leadership and include the additional dimensions of inspirational motivation and idealized influence (attributed and behavioral). In addition, management-by-exception is refined to management-by-exception active, and management-by-exception passive. Also, the concept of laissez-faire leadership in the current FRL model was not represented in any way in the FRL model at the time of research by Bycio et al. (1995).

Considering the differences between the measurement instrument of the current study, and those applied by Bycio et al. (1995), results show significant similarities. Essentially, all those relatively positive leadership dimensions including idealized influence, intellectual stimulation, inspirational motivation, individual consideration, contingent reward and active management-by-exception correlate under the general umbrella of what the current study labels active leadership. In contrast, the relatively negative leadership dimensions of passive management-by-exception, and laissez-faire leadership correlate under the general umbrella of what the current study labels passive-avoidant leadership. The identification of such a close relation between passive management-by-exception and laissez-faire leadership is also found in some prior research (Den Hartog, Van Muijen, & Koopman, 1997; Garman et al., 2003). The dimension of laissez-faire leadership is the least researched of the FRL dimensions due to the relatively recent addition of this dimension to the FRL model (Judge & Piccolo, 2004). Research prior to the inclusion of the laissez-faire dimension typically identifies management-by-exception as the passive leadership style associated least successfully with positive follower and organizational outcomes (Bycio et al., 1995; Medley & Larochelle, 1995). In the current study, laissez-faire and management-by-exception (passive) relate to the degree of a leader's lack of interest and concern towards organizational members and processes. This passive-avoidant style is essentially non-leadership and is likely to result in low levels of job satisfaction (Waldman et al., 1987), increasing levels of work stress and staff burnout (Corrigan, Lickey, Campion, & Rashid, 2000), and generally negative organizational outcomes (Judge & Piccolo, 2004).

Few studies suggest a two-factor structure of the FRL model (Bass & Avolio, 2004b; Bycio et al., 1995; Medley & Larochelle, 1995; Tepper & Percy, 1994). The current findings add weight to the argument that a two-factor structure of the FRL model may be a conceptually valid and appropriate structure for understanding leadership in some specific contexts such as Pakistan.

More generally, the association of transactional and transformational leadership dimensions in the current study raises questions



Chi-Square=751.74, df=524, P-value=0.00000, RMSEA=0.030

Fig. 3. SEM of the relation between Active Leadership, Passive-avoidant Leadership, and Innovation Propensity.

as to the validity of the transformational leadership construct. Specifically, the current study brings into question the results of previous research employing the MLQ in Pakistan. The results of transformational leadership research in Pakistan by Khan et al. (2009) and Tipu et al. (2012) may be misleading considering the current study's failure to identify transformational leadership as a unique leadership dimension in that context. The veracity of research by Bodla and Nawaz (2010) is also a concern as the study makes no attempt to validate leadership dimensions.

The nature of the relation between the two FRL dimensions of active and passive-avoidant leadership in the current study, and the dimension of innovation propensity is worthy of discussion. Conceptually, the current study expects specific directional relations between the dependent variable of innovation propensity and the variables of active leadership and passive-avoidant leadership. Prior research suggests the relation of active leadership styles to positive outcomes, and passive-avoidant leadership styles to negative outcomes (Judge & Piccolo, 2004; Özaralli, 2003). The result of H3 is in line with expectations. Active leadership positively affects innovation propensity. The relation is statistically significant and strong. Although the current study calls into question the validity of the independent leadership concepts of transformational and transactional leadership, results do confirm that transformational and transactional leadership behaviors can complement each other and that the same manager may utilize combinations of these behaviors in order to foster innovation. Bass (1988) proposes this association between a leaders' use of transformational and transactional leadership styles as an augmentation hypothesis whereby the use of transformational behaviors offers increasing benefits beyond those of transactional leadership behaviors, but not vice versa. The findings of the current study show support for the benefits of these leadership behaviors but suggest a real need for a more critical examination of the validity of these supposedly distinct leadership concepts.

In contrast, results lead us to reject H4. Passive-avoidant leadership does not negatively affect innovation propensity. In fact, the current study identifies a positive relation between these two factors. The strength of the relation is relatively weak but significant. The concept of leadership substitution offers some explanation of this unexpected result. The absence of leadership or passive-avoidant, non-leadership behavior might enact leadership substitutes (Podsakoff, MacKenzie, & Bommer, 1996). Poor leadership styles can lead to follower frustration and demotivation (Lievens et al., 1997; McColl-Kennedy & Anderson, 2005). Intrinsically satisfying tasks may act as a substitute for leadership in self-motivated subordinates who do not expect support from a passive-avoidant leader for carrying out innovative activities. Individuals can still engage in innovative activities if operating under the condition of self-supervision (Crawford et al., 2003). Theodosiou and Katsikea (2007) suggest that a laissez-faire management style may encourage follower independence and entrepreneurial spirit. The strength of the relation between passive-avoidant leadership and innovation propensity in the current study is not strong, but the findings suggest that the passive-avoidant leadership style might facilitate an environment where a limited degree of background or latent innovation can occur.

Research suggests that the cultural context of a study is an important consideration when interpreting results of the full range leadership model (Antonakis et al., 2003; Shao & Webber, 2006). The culture of Pakistan, which represents a high power distance and strong uncertainty avoidance context (Hofstede, 1985) provides an additional lens for exploring the relation between passive-avoidant leadership and innovation. High power distance represents unequal distribution of power in organizations, while uncertainty avoidance represents the degree to which people feel uncomfortable with uncertainty and ambiguity (Hofstede, 1985). Passive-avoidant leaders may encourage power distance as they do not interact with followers. However, the passive-avoidant leadership style is also likely to create a sense of ambiguity and uncertainty among followers due to lack of standards and feedback.

In the context of Pakistan, these conditions might encourage innovation propensity for followers seeking to achieve certainty and assure continuity. Results of the current study suggest that the indifference of passive-avoidant leaders might allow for a latent level of innovation propensity rather than actively undermining the propensity to innovate. This interesting observation certainly warrants further investigation.

5.1. Implications for business and managers

Effective leadership behaviors have a positive impact on individual and organizational outcomes, while leadership training and development assist in modifying leadership behaviors for greater effectiveness (Abrell, Rowold, Weibler, & Moenninghoff, 2011; Taylor, Taylor, & Russ-Eft, 2009). The concern for practitioners in an international context is the relevance of western-dominated leadership theory to leadership behaviors in non-western contexts. Current findings highlight the importance of a more critical examination of western management theory in non-western contexts. Certainly, evidence exists of the usefulness of importing western concepts for management education in different contexts (Michailova & Hollinshead, 2009). However, the current results suggest that the practice requires critical evaluation, especially in the important area of management development and leadership training.

Many organizational leadership training and development programs focus on training for western leadership concepts (Wenson, 2010), while research support for the benefits of such programs also comes mainly from western contexts (Blume, Ford, Baldwin, & Huang, 2010). The current findings urge practitioners to be cautious in their approach to training in non-western contexts. The current findings support the assertion of Antonakis et al. (2003) that leadership training should be at the level of individual factors, rather than at the simpler transactional/transformational construct level. Leadership training at the individual factor level gives prospective leaders a greater understanding of a variety of dimensions of leadership, which they can then utilize and apply in the combinations that are most appropriate for their context. The results from this study show that those combinations may not align with the traditional transactional, transformational and laissez-faire dimensions of leadership. However, the current research does show that contextually appropriate combinations of individual leadership dimensions such as idealized influence, individual consideration, intellectual stimulation, contingent reward and active management-by-exception can still result in an effective leadership style that positively influences organizational outcomes.

5.2. Limitations and future research

Undoubtedly, understanding the suitability of the FRL model as a useful framework for leadership research and practice in Pakistan and other developing countries requires further research. Results of the current study, with support by prior supposition (Bass & Avolio, 2004b; Bycio et al., 1995; Judge & Piccolo, 2004; Medley & Larochelle, 1995) encourage a more critical examination of the FRL model, with specific emphasis on exploring the validity of a two factor, active/passive-avoidant leadership structure.

Improving understanding of the phenomena under investigation requires more research in different contexts as well as research employing larger samples and more robust sampling techniques. Some of the greatest challenges in conducting research in developing countries are the reliability of data sources and sampling issues (Roy, Walters, & Luk, 2001). The current findings require cautious interpretation in light of these methodological challenges and weaknesses.

The current study is exploratory in nature and examines only a limited number of variables. Notwithstanding these shortcomings, the study encourages greater efforts to construct more complex, robust, and complete measurement models in order to understand better and more completely the nature of the relations between leadership styles

and innovation in Pakistan. Despite weaknesses, the study offers interesting insight into leadership in the region and provides a useful platform for further research.

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