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Article

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Transformational, Transactional Leadership and Rational Decision Making in Services Providing Organizations: Moderating Role of Knowledge Management Processes

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Abstract

The study is based on moderating role of knowledge management processes in the relationship between transformational, transactional leadership and rational decision making in services providing organizations. The study also examined the effect of transformational leadership and knowledge management processes on the predication of rational decision making. Information from services providing organizations including banks, hospitals, and universities is collected through Multifactor Leadership Questionnaire, Knowledge Management Process Scale and General Decision Making Styles Questionnaire. A purposive sample of 1200 employees participated in the present study. Moderated Regression analysis confirmed that transformational, transactional leadership and knowledge management processes positively predicted rational decision making. Finally, knowledge management processes moderated between transformational, transactional leadership and rational decision making.

Keywords: transformational-transactional leadership, knowledge management processes, rational decision making

1. Introduction

Decision making is the fundamental managerial activity (Bass, 1985; Yukl, 2002; Williams, 2003). Leaders involve in many decisions which involves minor issues of routine life in the job setting and strategic choices which determine the fate of the organization. The nature of a decision by a leader not only determines his or her own success but also determines the destiny of the organization (Kreitner & Kinicki, 2004). Individual differs in their decision making choices. Transformational (Tambe & Krishnan, 2000) and transactional leaders (Riaz, 2009) make rational decisions. Decision making of transformational leaders is aimed at providing leaders the knowledge essential to make continually successful decisions (Brower & Balch, 2006). Similarly,

Transactional leaders solve problems and decisions by using rationality. They employ logic while making important decisions (Barbuto et al., 2000). Rationality in general and decision rationality in particular is an important aspect of leadership in organizations (Gar, 2009). Rational decisions involve objectively collecting, analyzing, evaluating information before making final choices (Scott & Bruce, 1995). The rational decisions of transformational and transactional leaders are assisted by knowledge management processes in the modern organizations.

- **H₁** Transformational and transactional leadership positively predicts rational decision making in services providing organizations.

Knowledge management involves the processes of creating, modifying, using, archiving, transferring, translating, accessing and disposing the knowledge in the organizations (Bergeron, 2003). Knowledge management has received much attention in the recent years although its existence can be traced back in the history (Kucza, 2001). Knowledge exists in multiple forms including human, consumer and structural capital—broadly labeled as intellectual capital of an organization (Bergeron, 2003). Knowledge management helps in the excellent utilization of these organizational resources (Bollinger & Smith, 2001). Leadership plays a central role in knowledge management (Bryant, 2003). The association between leadership and knowledge management is well-researched (Bryant, 2003; Johnson, 2002; Politis, 2001). Leaders deal with knowledge in organizations at three levels including individual, group and organizational level (Bryant, 2003). Gowen et al., (2009) state that transformational leaders make improvements in overall knowledge management processes in health care institutions. Crawford (2005) discovered that transformational leadership contributed 19.5% variance in knowledge management. While investigating the role of leadership styles in knowledge management, Politis (2001) found that leaders having behavioral and interpersonal skills were more effective in knowledge management process. These skills are integral part of transformational and transactional leadership (Avolio & Bass, 2002).

Knowledge management is directly linked with decision making (Skyrme, 2002). Both knowledge management and decision making involves three levels including individual, group and organizational levels (Bryant, 2003; Harrison, 1999). Similarly, both knowledge management and rational decision making involves step by step procedures (Bergeron, 2003; Hellreigel et al., 2001; Hendry, 2000; Harrison, 1987; Wedley & Field, 1984). Nutt (1984) illustrate that rational decision making involves identifying problems, defining objectives, making pre-decision, generating alternatives, evaluating alternatives, selecting alternatives, implementing choice and follow up. Other researchers (Chater et al., 2003; Mangalindan, 2004) limit rational decision making processes to identifying the problem, generating alternative solutions, selecting a most suitable solution, and implementing and evaluating the solution. In the entire process, knowledge-oriented managers objectively process entire information to make a decision. Holsapple (1995) illustrates that knowledge management processes not only influences overall process of the decision making but also influences different steps involved in the process of making decisions (Nicolas, 2004). Different processes of knowledge management incorporate decision support tools which help in the decision making processes (Bergeron, 2003).

- **H₂** Knowledge management processes positively predict rational decision making in services providing organizations.
- **H₃** Knowledge management processes moderates between transformational, transactional leadership and rational decision making.

The present study is based on the Full Range Leadership Theory (Bass & Reggio, 2006). The FRLT comprised of three leadership styles out of which two leadership styles including transformational and transactional leadership are included in the present study. Keeping in view the past literature, the objectives of the present study are threefold i.e. (a) studying the role of leadership styles in rational decision making, (b) studying the role of knowledge management processes on rational decision making, and (c) studying the moderating effect of knowledge management processes between leadership styles and rational decision making in services providing organizations.

Conceptual Framework

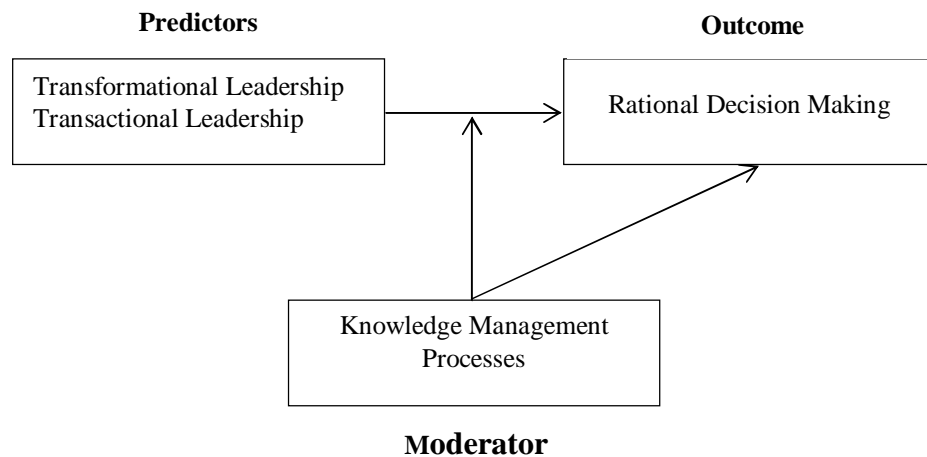


Figure I. Role of Knowledge Management Processes in the Relationship between Leadership Styles and Rational Decision Making

2. Methodology

Employees of services providing organizations ($N = 1200$) including health, educational and financial institutions were selected through cross-sectional survey research design. Both supervisors ($n = 300, 25%$) and their immediate subordinates ($n = 900, 75%$) participated in the study. Data was collected from hospitals, banks and universities situated in the province of the Punjab. Data was collected through purposive sampling. Written informed consent was taken from participants before administering the scales.

2.1 Measures

Multifactor Leadership Questionnaire (Bass & Avolio, 1995) measured leadership styles of the participants. It comprised of three leadership styles and 36 items out of which 20 items measure transformational leadership. The questionnaire is based on 5-point rating scale. All the items are positively scored. Past research confirms the validity and reliability of this scale among employees of services providing organizations in Pakistan (Khan, 2009; Khan, 2010). Rational style was measured through General Decision

Making Style Questionnaire (Scott & Bruce, 1995). The questionnaire comprised of five decision making styles and 25 items out of which 5 items measure rational decision making. The questionnaire is based on 5-point rating scale. All the items are positively scored. Past research confirms the validity and reliability of this scale among employees of services providing organizations in Pakistan (Hayie, 2009; Riaz, 2009). Knowledge Management Processes Scale (Tayyab, 2009) was used to measure the knowledge management processes in the services providing organizations. It is based on 29 items and 5-point Likert-type response format. All the items are positively scored.

2.2 Procedure

In the present study data were collected from two types of samples including supervisors (medical superintendents in hospitals, managers in banks and head of departments in universities) and their subordinates (medical officers in hospitals, bank officers in banks and lecturers in universities). The supervisors provided the information on rational decision making style whereas their subordinates rated their supervisors on leadership and overall knowledge management processes in their respective organizations. Every supervisor was rated by his or her three immediate subordinates on leadership and knowledge management. Data was independently collected from both types of employees in all three types of organizations. Neither the supervisors were informed regarding the nature of data collected from subordinates nor the subordinates were informed about the nature of information collected from their supervisors. Finally research participants were thanked for the voluntary participation.

3. Results and Discussion

3.1 Results

The present study was a descriptive research in which the association between the variables was studied.

Table 1: Mean, Standard Deviation, Range, Skewness, Kurtosis, Alpha Reliability Coefficients for Study Variables (N = 1200)

Variables	<i>M</i>	<i>SD</i>	<i>α</i>	Range	Skewness	Kurtosis
1. Transformational leadership	220.24	37.48	.71	119-363	-.36	.31
2. Transactional leadership	109.47	16.22	.71	53-147	-.44	.48
3. Knowledge management processes	300.55	32.97	.93	207-381	-.36	.11
4. Rational decision making	18.72	2.86	.76	9-25	-.56	.66

Table 1 revealed that the reliability coefficient for all measures is greater than .70 indicating satisfactory internal consistency. The univariate analysis revealed that the

values of both skewness and kurtosis were computed as less than 1 indicating that scores were normally distributed.

Table 2: Zero-Order Correlation among Study Variables (N = 1200)

Variables	1	2	3	4
1. Transformational leadership	-	.83***	.29***	.18**
2. Transactional leadership		-	.17**	.15**
3. Knowledge management processes			-	.28***
4. Rational decision making				-

*p < .05, **p < .01, ***p < .001

Table 1 shows that transformational leadership has significant positive correlation with transactional leadership ($\gamma = .83, p < .001$), knowledge management ($\gamma = .29, p < .001$), and rational decision making ($\gamma = .18, p < .01$). Transactional leadership has significant positive correlation with knowledge management ($\gamma = .17, p < .01$) and rational decision making ($\gamma = .15, p < .01$). Knowledge management has significant positive correlation with rational decision making ($\gamma = .28, p < .001$). The major regression assumptions i.e. normality, linearity and multicollinearity were adequately addressed. Skewness and kurtosis values confirmed that data was normally distributed. Pearson correlation confirmed the liner relationship between predictors and outcome variables. Multicollinearity diagnosis confirmed that the values of VIF and tolerance were appropriate and thus multicollinearity was not problematic.

Table 3: Multiple Moderated Regression Analysis Showing the Effect of Knowledge Management Processes Between Transformational Leadership and Rational Decision Making (N = 1200)

Predictors	ΔR^2	ΔF	β
Transformational leadership	.028	12.85***	1.40***
Knowledge management processes			1.82***
Transformational leadership x knowledge management processes			2.27***

***p<.001

Table 2 shows the moderating effect of knowledge management processes on the relationship between transformational leadership style and rational style in services providing organizations. The ΔR^2 value of .028 explained 2.8% variance in the rational decision making [$\Delta F (1, 296) = 12.85, p < .001$]. The findings confirmed that transformational style has positive effect on rational decision making ($\beta = 1.40, p < .001$). Knowledge management processes has positive effect on rational style ($\beta = 1.82, p < .001$). Transformational leadership style x knowledge management processes has significant positive effect on rational decision making style ($\beta = 2.27, p < .001$). Transformational leadership and knowledge management predicted rational decision making independently and in interaction. These findings provide support for H₁ and H₂. The findings also supports the purpose of the study that rational decision making is an

outcome of the interaction between transformational leadership and knowledge management in services providing organizations.

Table 4: Multiple Moderated Regression Analysis Showing the Effect of Knowledge Management Processes Between Transactional Leadership and Rational Decision Making (N = 1200)

Predictors	ΔR^2	ΔF	β
Transactional leadership	.017	7.80**	1.40***
Knowledge management processes			.98*
Transactional leadership x knowledge management processes			1.73**

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3 shows the moderating effect of knowledge management processes between transactional leadership style and rational decision making style. The ΔR^2 value of .017 explained 1.7% variance in rational style [$\Delta F(1, 296) = 7.80, p < .01$]. The findings indicate that transactional leadership style has significant positive effect on rational decision making style ($\beta = 1.40, p < .01$). Knowledge management processes has positive effect on rational decision making style ($\beta = .98, p < .05$). Transactional leadership style x knowledge management processes has positive effect on rational decision making style ($\beta = 1.73, p < .01$). Transactional leadership and knowledge management predicted rational decision making independently and in interaction. These findings provide support for H₂ and H₃. The findings also supports the purpose of the study that rational decision making is an outcome of the interaction between transactional leadership and knowledge management in services providing organizations.

3.2 Discussion

The findings indicate that transformational leadership, knowledge management processes, and transformational leadership x knowledge management processes contributed 2.8% variance in rational decision making. Similarly, transactional leadership, knowledge management processes, and transactional leadership x knowledge management processes contributed 1.7% variance in rational style. All the findings are in the anticipated directions. The 1st hypothesis anticipating that “transformational and transactional leadership positively predict rational decision making in services providing organizations” is in line with the past investigations (Riaz, 2009; Tambe & Krishnan, 2000). The overall results supports FRLT in the collectivist context of Pakistan. Both styles on the FRLT are considered first order active and effective leadership styles (Avolio & Bass, 2002). Thus the positive effect of these leadership styles on rational decision making supports the superiority of these leadership styles because the rational style is the superlative style of making decisions (Batool, 2007; Riaz et al., 2012; Scott & Bruce, 1995).

The second hypothesis “knowledge management processes positively predicts rational decision making in services providing organizations” and the third hypothesis “knowledge management processes moderates the relationship between transformational, transactional leadership and rational decision making” were found in the anticipated directions. Nicolas (2004) found that knowledge management effects different phases of

decision making process in intricate situations. Holsapple (1995) illustrates that knowledge management processes are used as decision support systems during the course of decision making. Muhammad and Jalal (2011) discovered that knowledge management factors are prerequisite for making successful decisions in organizations. Ilic (2010) found that management of knowledge makes important contribution while making decisions in health institutions. McKenzie et al., (2011) discovered that knowledge management assists in making right decisions across varying contexts and helps in selecting right decision making processes in diverse scenarios. Courtney (2001) is of the view that knowledge based decision support systems are considered effective for making appropriate decisions. Bryant (2003) illustrate that in three core processes of knowledge management including creating, sharing and exploring knowledge, leadership plays a central role. However, transformational leaders are better for knowledge creation; it's sharing among individuals and groups whereas transactional leaders are competent in creating and sharing knowledge at organizational level. Thus, both transformational and transactional leaders promote knowledge management at all levels including individual, group and organizational levels.

Past research is evident that transformational and transactional both styles of leadership are positively associated with knowledge management processes (Crawford, 2005; Bryant, 2003). Bryant (2003) studied the role of these two styles of leadership and discovered that leaders play central role in expertly creating, sharing and exploring knowledge in the modern organizations. Effective leaders are principally committed and motivated in taking knowledge management initiatives in the organizations. The current epic is based on the knowledge based economy in which knowledge sharing is the backbone of the business in the corporate sector (Baker & Badamshina, 2002). In the current era, modern organizations are focusing on the massive developments and flourishing the business with the help of knowledge management (Daft, 2001). Beside the considerable importance of knowledge management, it is worth noticing that it is the responsibility of the leaders to share knowledge and enables subordinates in managing knowledge in the organizations and making knowledge-oriented rational decisions (Holowetzki, 2002). Thus leadership plays a vital role in overall knowledge management processes and knowledge based rational decision making. The current investigation is useful in finding the role of knowledge management processes in the rational decisions made by transformational and transactional leaders in services providing organizations.

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