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#### Article

Key determinants of employees' innovative work behavior in knowledge intensive firms: A proposed framework

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# Key Determinants of Employees' Innovative Work Behavior in Knowledge Intensive Firms: A Proposed Framework

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#### **Abstract**

Competitive firms are now focusing on innovation. Innovation is crucial for the process of identifying new opportunities and keeping the firm to be a few steps ahead of their competitors. Innovation of knowledge intensive firms is dependent to the knowledge workers and their innovative work behavior. Based on five main theories extracted from previous study, a new proposed framework has been developed consists of transformational leadership, continuance commitment, affective commitment, normative commitment, extrinsic reward and intrinsic reward as the independent variables and innovative work behavior as the dependent variable. This study is significant to knowledge management scholars, managers and policy makers.

**Keywords**: innovative work behavior; knowledge intensive firm; transformational leadership; commitment; reward

#### 1. Introduction

Smith and Tushman (2005) and Afsar et al. (2014) claimed innovation as an important role for leading firms in technologically advanced and highly competitive environment. The success of any firm is fostered through its innovation initiatives derived from their human capital (Van de Ven, 1986; Mylteka and Smith, 2002; Afsar et al. (2014). Markova and Ford (2011) concluded competitiveness of a firm is dependant on its capability of knowledge generation and innovation through employees or also known as knowledge workers. Knowledge workers are a powerful source in sustaining survival and success of any firm by leveraging on creativity and innovation (Fatemeh et al., 2016; Markova and Ford, 2011). However, knowledge workers' success can only be a source of business triumph if they are ready and willing to put into use of their abilities, commit time in solving challenging tasks and share their know-how. In order to build a strong foundation of knowledge intensive firms, they have to leverage on their human capital (Markova and Ford, 2011). With regard to increase creativity and innovation, knowledge intensive firms must consider a few key determinants of capitalizing knowledge workers' innovation work behavior.

This aim of the paper is to propose a theoretical framework on the key determinants of employees' innovative behavior in knowledge intensive firms. The paper is divided into five



sections which are introduction on innovative work behavior, discussion on related previous studies, comparison of theoretical frameworks, proposed framework and conclusion.

## 2. Literature Review

There is an increasing number of literatures regarding knowledge workers' innovative work behavior. Since the success of any knowledge intensive firm is relying on their knowledge workers, firms or particularly their managers have to come out with solutions in fostering and promoting innovative work behavior in a working environment (Fatemeh et al., 2016). Therefore, in the literature review section, six antecedents of innovative work behavior were discussed.

#### 2.1. Innovative work behavior

Employees' innovative work behavior is an indication where useful and novel ideas are being developed and implemented to produce new and better services, products or procedures (Kanter, 1988; Van de Ven, 1986; Afsar et al., 2014). Farr and Ford (1990), De Jong and Den Hartog (2007) and Afsar et al., (2014) termed innovative work behavior as a situation when a problem is recognized, useful ideas will be introduced, initiated and implemented while a needed set of behaviors must be developed along the process at the same time with a mission to intensify individual or business performance. Innovative work behavior is an intentional behavior of employees towards their employed firm where they generate new products, ideas, processes and procedures on their job role, unit, department or firm level (Fatemeh et al, 2016).

#### 2.2. Transformational leadership

Leaders or roles of managers have caught the attention of researchers and practitioners in motivating knowledge workers to innovate in a knowledge-based working environment. Piccolo and Colquitt (2006), Wang et al. (2005), Podsakoff et al. (2003) and Afsar et al. (2014) found transformational leadership as a catalyst to induce employees' innovative work behavior. Transformational leaders are the one that articulates challenging goals and energizing vision and put his employees in a higher level of motivation in improving themselves (Burns, 1978; Afsar et al., 2014). Leaders or managers that practice transformational leadership in the working environment are likely trusted and admired by his employees, especially when the leaders actively show intellectual stimulation in terms of questioning decisions and solving challenging tasks. Therefore, transformational leadership has been chosen as one of the independent variables in the proposed framework.

#### 2.3. Commitment



Organizational commitment is when employees accept organizational values and mission and willing to strive effort for the benefit of the organization and maintaining their membership with the firm they are employed (Porter et al., 1974; Marques et al., 2014). Thus, according to Meyer and Allen (1991), organizational commitment is an extension of three types of commitment which are affective commitment, continuance commitment and normative commitment.

#### 2.3.1. Affective commitment

Affective commitment is the most researched form of commitment compared to the other two forms of commitment. According to Meyer and Ellen (1991) and Fatemeh et al. (2016), when an employee has an affective commitment towards his firm, it is meant by he is having an emotional attachment to the place he is currently working. Due to his attachment to the firm, he is willingly wanted to stay at the firm. Staying at the firm by our own intention and involvement can provide a positive work experience because it is from his own personal choice. When an employee is committed to his work, it will enhance his learning, engagement of work and innovative behavior. Therefore, affective commitment is often related to innovative behavior in the prior research.

#### 2.3.2. Continuance commitment

The second component of organizational commitment is continuance commitment. According to Meyer and Allen (1991) and Fatemeh et al. (2016), continuance commitment is related to the need of employees to retain in the firm due to a high cost of leaving. According to Rusbult and Farrell (1983) and Fatemeh et al. (2016), continuance commitment can be flourished if there is an increment in investment and decrement in attractive alternatives and job opportunities. Nonetheless, continuance commitment must be measured carefully because a clear clarification on to what extent they want to stay in the firm is insufficient. Therefore, according to Meyer and Allen (1991) and Fatemeh et al. (2016), there is a relationship between employees' behavior at work with the second component of commitment which is continuance commitment.

# 2.3.3. Normative commitment

The third component of organizational commitment is normative commitment. Normative commitment is developed when there is a mutual feeling towards the firm. They are obligated to retain and work in the firm (Chang and Lin, 2008; Meyer and Allen, 1991; Fatemeh et al., 2016). Based on previous literatures, normative commitment is able to improve trust within the firm and increase work attendance and job performance (Muhwezi,



2008). According to Wiener (1982) and Meyer and Allen (1991), the employees feel there is an obligation for them to contribute to the firm due to the normative pressures from their entry to the firm itself. For example, a situation where an employee is rewarded a scholarship or sponsorship associated with job training. Scholl (1981) said these kind of investments from the firm have developed a normative commitment within the employees. They feel the need to contribute back to the firm due to the investment on them until the debt is fully repaid. Therefore, there is possibility that employees' behavior at work is associated with the willingness of employees to contribute to the firm.

#### 2.4. Rewards

According to Milkovich and Newman (2004) and Zhou et al. (2011), firms are leveraging on reward management as a key to motivate and retain employees. Until today, there is no consensus achieved on the relationship between rewards and employees' innovative behavior at work (Zhou et al., 2011). There are two types of rewards which are incentive and recognition.

#### 2.4.1. Intrinsic reward

Today, firms are focusing on providing various offers of intrinsic rewards in motivating employees to be creative and attracting the best talent. Intrinsic reward is intangible such as learning and development, flexibility of working hours, training and career opportunities and career advancement. It is believed that intrinsic rewards can influence employees' motivation and work behavior. Careers opportunities and advancement are intended to improve employees' competencies and skills thus they are able to go after their career goals through the initiatives (Pregnolato, 2010; Schlechter et al., 2015).

### 2.4.2. Extrinsic reward

Extrinsic reward is a compensation type of reward given to employees when they have contributed something to the firm they are employed. In a knowledge based economy, knowledge is valued as a crucial factor of organizational competitive advantage. Thus, in order to motivate the employees to become more innovative, extrinsic rewards will be compensated based on employee contribution (Liu and Li, 2017). Extrinsic reward is also known as financial incentives such as bonus and incentive pay. Based on literatures, extrinsic rewards have an ability to intensify employees' innovative behavior at work. Assessing extrinsic rewards can be done in a scale of "When I perform creatively, I receive financial rewards, such as incentives or bonuses", "When an employee exhibits creative performance, my company offers some treats such as a celebration dinner" and "When I



perform creatively at work, my company offers corresponding benefits in return" (Ghosh et al., 2016).

#### 3. Theoretical review

Five main theories from previous literatures have been extracted leading to a new proposed framework on the study of employees' innovative work behavior in knowledge intensive firms.

## 3.1. Transformational leadership and innovative work behavior

Transformational leadership and innovative work behavior is produced in 2014 and written by Bilal Asfar, Yousre F. Badir and Bilal bin Saeed. The aim of the study is to seek psychological empowerment as a mediating role and self-construal as a moderating role on the relationship of transformational leadership as an independent variable and innovative work behavior as a dependent variable. The authors executed a quantitative approach by collecting data through questionnaire from China's five innovative companies (Asfar Bilal et. al, 2014). In order to evaluate the relations, structural equation modeling was used in the study. From the findings, the authors found that psychological empowerment posed as a mediating variable between the relationship of transformational leadership and innovative behavior. The authors concluded a positive relationship between transformational leadership and innovative behavior. Therefore, based on the theoretical framework above, its independent variable has been chosen as one of the independent variables in the proposed study.

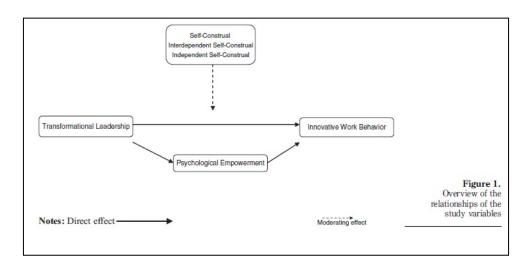


Figure 1 : Transformational leadership and innovative work behavior (Asfar Bilal et. al, 2014)

# 3.2. Surviving downsizing and innovative behaviors: a matter of organizational commitment



Surviving downsizing and innovative behaviors: a matter of organizational commitment is published in 2014 written by Tania Marques, Jesus Galende, Pedro Cruz and Manuel Portugal Ferreira. The paper intended to determine the factors that can foster employees' innovative behavior in a downsizing working environment. Therefore, the authors have developed a theoretical framework consists of organizational commitment as the mediating variable between job insecurity (independent variable) and innovative behavior (dependent variable). The data is collected by using questionnaires. The questionnaires are disseminated among employees that are experiencing downsizing process in a large multinational computer, technology and Information and Technology consulting firm (Marques et. al, 2014). The result of the findings shows that through organizational commitment, there is an indirect effect of job security on employees' innovative behavior. Therefore, organizational commitment has been chosen as one of the independent variables in the proposed study.

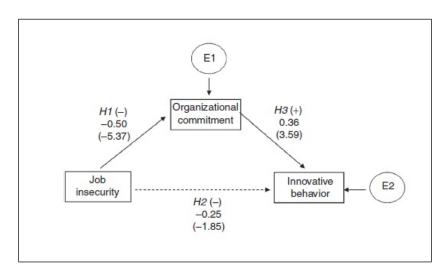


Figure 2 : Surviving downsizing and innovative behaviors: a matter of organizational commitment (Marques et. al, 2014)

# 3.3. Importance of commitment in encouraging employees' innovative behavior

Importance of commitment in encouraging employee's innovative behavior is produced in 2016 and written by Fatemeh Hakimian, Hadi Farid, Mohd Nazari Ismail and Pradeep Kumar Nair. This study aims to explore the relationship of three forms of commitment and innovative behavior of employees. The theoretical framework of the study contains three independent variables which are affective commitment, continuous commitment and normative commitment while its dependent variable is employee innovative behavior. A questionnaire has been developed by adopting from previous studies and disseminated in a group of Malaysian Small and Medium Enterprises employees. The



authors chose partial least square to analyze the data. Based on the findings from statistical results, there are significant relationships between normative and affective commitment and innovative behavior of employees (Fatemeh et al., 2016). Therefore, normative, continuance and affective commitment have been chosen as independent variables of the proposed study.

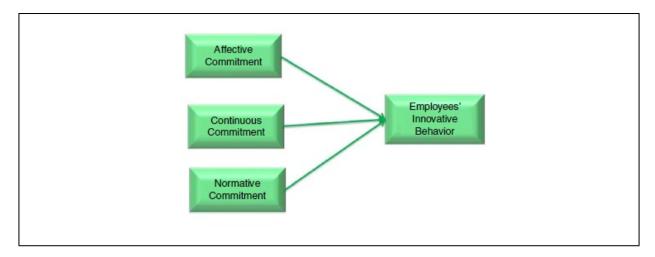


Figure 3 : Importance of commitment in encouraging employees' innovative behavior (Fatemeh et. al, 2016)

## 3.4. Is money the panacea? Rewards for knowledge workers

Is money the panacea? Rewards for knowledge workers ia written by Gergana Markova and Cameron Ford and published in 2011 used a theoretical framework where monetary reward and non-monetary rewards act as independent variables while intrinsic motivation as a mediating variable while the dependent variable is innovative behavior. The goal of the study is to investigate the effect of two types of rewards on knowledge workers' performance. Therefore, questionnaires have been distributed to employees and their supervisors of research and development companies. The relationships of the study are analyzed by using multiple regression. The study disclosed rewards are associated in improving employees' performance and innovation and impacted by intrinsic motivation with a full mediation. Therefore, monetary and non-monetary rewards are chosen as independent variables of the study.



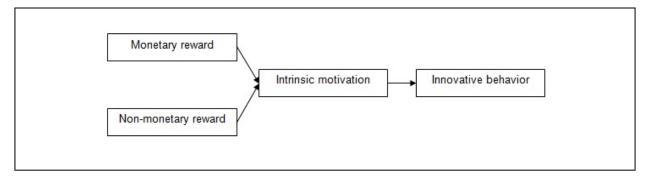


Figure 4 : Is money the panacea? Rewards for knowledge workers (Markova & Ford, 2011)

# 3.5. Utilitarianism or romanticism: the effect of rewards on employees' innovative behavior

A research paper written by Yu Zhou, Yingying Zhang and Angeles Montoro-Sanchez titled Utilitarianism or romanticism: the effect of rewards on employees' innovative behavior is published on the International Journal of Manpower in 2011. The paper seeks to probe the relationship of human resource reward management based on two approaches which are utilitarianism and romanticism and innovative behavior of employees at work. The data that have been collected from employees of Chinese enterprises through questionnaire have been tested by executing multiple-regression analysis. The theoretical frameworks is developed by having rewards in terms of intrinsic and extrinsic rewards and motivation in terms of intrinsic and extrinsic rewards act as independent variables and innovative behavior as a dependent variable. The authors found that extrinsic rewards and intrinsic motivation have positive interaction effects on employees' innovative behavior (Zhou Yu et al., 2011). Therefore, extrinsic reward and innovative behavior have been chosen as an independent variable and a dependent variable respectively.

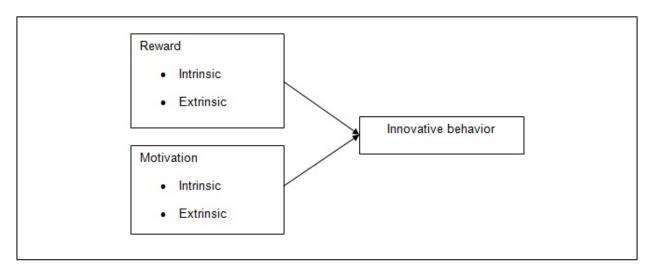


Figure 5 : Utilitarianism or romanticism: the effect of rewards on employees' innovative behavior (Zhou Yu et al., 2011)



#### 4. Theoretical Framework

A theoretical framework has been developed to study on the key antecedents of employees' innovative work behavior in knowledge intensive firms by investigating the relationship between independent variables which are transformational leadership, affective commitment, continuance commitment, normative commitment, intrinsic reward and extrinsic reward towards employees' innovative work behavior.

Based on adopt and adapt approach, a theoretical framework of the proposed study has been developed as the following:

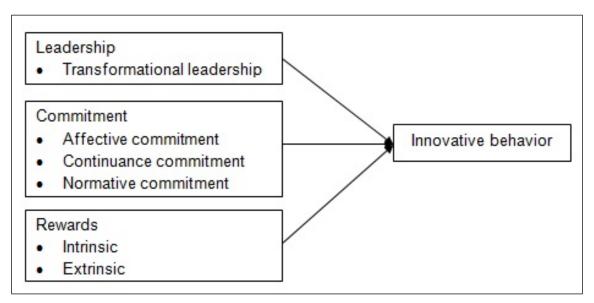


Figure 6: Proposed theoretical framework

#### 5. Conclusion

Firms are now struggling to be competitive enough and become successful within their business circle. As knowledge intensive firms are dependent to their knowledge workers, they need committed employees with appropriate innovative capabilities and performance in their work life. Therefore, the proposed framework will contribute to the increasing knowledge of employees' innovative behavior at work and also useful insights for managers and policy makers of both public and private organizations that intend to promote their employees' innovative work behavior.

#### References

Afsar, B., Badir, Y. F., & Bilal, B. S. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, *114*(8), 1270-1300.

Burns, J. M. (1978). Leadership. New York: Harper and Row.



- Chang, T. Y., & Lin, H. Y. (92-97). A study on service employees' customer-oriented behaviors. *Journal of American Academy of Business*, *13*(1), 2008.
- De Jong, J. P., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behavior. *European Journal of Innovation Management, 10*(1), 41-64.
- Farr, F., & Ford, C. (1990). Individual innovation. In M. A. West, & J. I. Farr, *Innovation and Creativity at Work: Psychological and Organizational Strategies* (pp. 63-80). Chichester: Wiley.
- Fatemeh, H., Hadi, F., Mohd Nazari, I., & Nair, P. K. (2016). Importance of commitment in encouraging employees' innovative behaviour. *Asia-Pacific Journal of Business Administration*, *8*(1), 70-83.
- Ghosh, P., Rai, A., Chauhan, R., Baranwal, G., & Srivasta, D. (2016). Rewards and recognition to engage private bank employees: Exploring the "obligation dimension". *Management Research Review*, 39(12), 1738-1751.
- Kanter, R. M. (1988). Three tiers for innovation research. *Communication Research*, *15*(5), 509-523.
- Liu, H., & Li, G. (2017). To gain or not to lose? The effect of monetary reward on motivation and knowledge contribution. *Journal of Knowledge Management*, *21*(2).
- Markova, G., & Ford, C. (2011). Is money the panacea? Rewards for knowledge workers. *International Journal of Productivity and Performance Management, 60*(8), 813-823.
- Marques, T., Galende, J., Cruz, P., & Ferreira, M. P. (2014). Surviving downsizing and innovative behaviors: a matter of organizational commitment. *International Journal of Manpower*, *35*(7), 930-955.
- Meyer, J. P., & Allen, N. J. (1991). A Three Component Conceptualization of Organizational Commitment. *Human Resource Management Review*, *1*(1), 61-89.
- Milkovich, G., & Newman, J. (2004). *Compensation* (8 ed.). New York, NY: McGraw-Hill/Irwin.
- Muhwezi, M. (2008). Using the behavioural perspective to explain the current state of horizontal collaborative purchasing the public sector in Uganda. *24th IMP Conference*. Uppsala.
- Mytelka, L. K., & Smith, K. (2002). Policy learning and innovation theory: an interactive and co-evolving process. *Research Policy*, *31*(8), 1467-1479.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: the mediating role of core job characteristics. *Academy of Management Journal, 49*(2), 327-340.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107-142.



- Porter, L., Steers, R., Mowday, R., & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, *59*(5), 603-609.
- Pregnolato, M. (2010). *Total Rewards that Retain: A Study of Demographic Preferences*. Cape Town: University of Cape Town.
- Rusbult, C. E., & Farrell, D. (1983). A Longitudinal Test of the Investment Model: The Impact on Job Satisfaction, Job Commitment and Turnover of Variations in Rewards, Costs, Alternatives and Investments. *Journal of Applied Psychology, 68*, 429-438.
- Schlechter, A., Thompson, N. C., & Bussin, M. (2015). Attractiveness of non-financial rewards for prospective knowledge workers: An experimental investigation. *Employee Relations*, *37*(3), 274-295.
- Scholl, R. W. (1981). Differentiating Commitment From Expentancy as a Motivating Force. *Academy of Management Review, 6*, 589-599.
- Smith, T. M., & Tushman, M. L. (2005). Managing strategic contradictions: a top management model for managing innovation streams. *Organization Science*, *16*(5), 522-536.
- Van de Ven, A. H. (1986). Central problems in the management of innovation. *Management Science*, 32(5), 590-607.
- Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal*, 48(3), 420-432.
- Wiener, Y. (1982). Commitment in Organizations: A Normative View. *Academy of Management Review, 7*, 418-428.
- Zhou, Y., Zhang, Y., & Montoro-Sanchez, A. (2011). Utilitarianism or romanticism: the effect of rewards on employees' innovative behaviour. *International Journal of Manpower*, 32(1), 81-98.