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The Influence of Psychological Empowerment on Innovative Work Behavior among Academia in Malaysian Research Universities

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Abstract. Psychological empowerment is about psychological states that produce perception of empowerment in the workplace. Based on the literature review, psychological empowerment includes the meaning, competence, self determination, and impact that reflect the individual orientation towards his/her task role. Meanwhile, innovative work behavior refers to the employees' creativity and their involvement in bringing changes and new ideas in duties or in solving their problems especially in research and development which become the focus of this study. Innovative work behavior consists of generation, promotion, and realization of new ideas. This study aims to identify the effect of psychological empowerment on innovative work behavior among lecturers. In our endeavor to this matter, we view the issue in a positivist paradigm with quantitative approach. This approach used surveys as research strategy by adapting questionnaires technique. The data collection has been conducted among 393 lecturers in five research universities and emphasize on the lecturer's research and development. Accordingly, data collected were analyzed using SPSS and SEM AMOS by looking at the confirmatory factor analysis (CFA), model fit, and path analysis. The finding of this study indicates that the dimensions of meaning, competence, and self-determination from psychological empowerment effect the generation, promotion, and realization of new ideas of innovative work behavior. Meanwhile, the dimension of impact from psychological empowerment only influences the promotion of new ideas of innovative work behavior. The result of the structural model indicated that psychological empowerment were significantly related to innovative work behavior among lecturers.

Keywords: Psychological Empowerment, Lecturers, Innovative Work Behavior

1. Introduction

Since the formation of the country's first university, Universiti Malaya in 1961, the higher education capacity in Malaysia has grown to 20 public universities, 32 private universities and university colleges, four branch campuses of international universities, 21 polytechnics, 37 public community colleges and 485 private colleges. The 20 public universities can be further grouped into three categories. It consist of 5 Research Universities, 4 Comprehensive Universities and 11 Focused Universities. Research Universities focus on research, Comprehensive Universities offer variety of courses and fields of studies, while Focused Universities concentrate on specific fields related to its establishment. Innovations are required in conforming to current academic demands especially in research universities that focusing on research and development (R&D) as the core activities. As according to Najib (2010), the manifestations of innovations in the academic domain appear to be recent explanation in fulfilling the institutional demands. This matter also been highlighted by Zaini Ujang (2010) that innovations need to be develop among academia especially in research universities through at least several approach such as the creation of innovative community and individuals that have spirit to go advanced in ways of thinking, approach and action in various fields.

In response to this matter, this study would like to identify the effect of psychological empowerment on innovative work behaviour among academia as it is fundamentally need to be examined especially in the context of Malaysian research universities that highly see this as important issue. The objective of this study is to identify the effect of psychological empowerment on innovative work behaviour among lecturers' research and development in Malaysian research universities. It is hoped that this study examine each attribute and be ready to take actions necessary to increase the level of psychological empowerment on innovative work behaviour experienced by lecturers' especially in their research and development.

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2. Literature Review

2.1. Innovative Work Behavior

Innovative work behaviour can be defined as the sum of all physical or cognitive work activities staffs carry out solitarily or in a social setting in order to generate, promote and realize ideas that are new and applicable to their specific work context (Messmann, Mulder et al. 2010). Drawing from Kanter (1988) works and describing West and Farr (1989), Scott and Bruce (1994) assessed three dimensions of idea generation, idea promotion and idea realization to build the conception of innovative work behaviour. Idea generation refer to creating new ideas for difficult issues; searching out new working methods, techniques or instruments; and generating original solutions for problems. Meanwhile, idea promotion refers to mobilizing support for innovative ideas; acquiring approval for innovative ideas; and making important organizational members enthusiastic for innovative ideas. Accordingly, idea realization refers to transforming innovative ideas into useful applications; introducing innovative ideas into the work environment in a systematic way; and evaluating the utility of innovative ideas. In a word, this study implies the three dimensions of idea generation, idea promotion and idea realization that been distinguish from Kanter (1988), West and Farr (1989) and Scott and Bruce (1994) as it extensiveness to reflects the conception of innovative work behaviour in the intended work role.

2.2. Psychological Empowerment

Psychological empowerment is defined as a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact where these four cognitions reflect an active, rather than a passive, orientation to a work role (Spreitzer 1995). The cognition of meaning from psychological empowerment can be understand as when the organizational mission and goal are congruent to their own value system, employee will feel that their work is important and they care about whatever they do (Thomas and Velthouse 1990; Spreitzer 1995). The cognition of competence from psychological empowerment refers to the self-efficacy specific to work i.e. ability of an individual to perform his/her job activities with the needed knowledge and skills (Spreitzer 1995). The cognition of self determination can been seen in making decision especially concerning work methods, procedure, time and effort (Spreitzer 1995). Lastly, the cognition of impact is the extent on how far that an individual believe that he/she can influence the strategic output, management and operation in the workplace (Spreitzer 1995).

2.3. Conceptual Framework of the Study

Figure 1 below shows the conceptual framework for this study that focusing on psychological empowerment and innovative work behaviour.

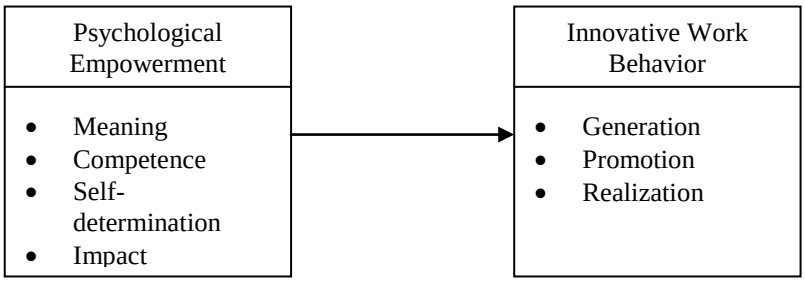

Fig. 1: Conceptual Framework

As in Figure 1 above, the conceptual framework illustrates the concept and items for this study based on the literature discussed in previous sub section. Psychological empowerment and innovative work behaviour is enormously important since the feeling of psychological empowerment realize the continuous flow of innovative work behaviour. Therefore, this next sub section would like to explore the emerging study on empowerment, or specifically the psychological empowerment, toward innovative work behavior.

3. Methodology

This study is viewed in a positivist paradigm with quantitative approach. This approach used surveys as research strategy by adapting questionnaires technique. The data collection has been conducted among 393

lecturers from five research universities. These five universities are Universiti Malaya, Universiti Sains Malaysia, Universiti Teknologi Malaysia, Universiti Putra Malaysia, and Universiti Kebangsaan Malaysia. Data collected were analyzed using SPSS and SEM AMOS by looking at the confirmatory factor analysis (CFA), model fit, and path analysis. Confirmatory factor analysis (CFA) was employed to test the measure of Psychological Empowerment on Innovative Work Behavior by testing the extent to which, observed items are linked to their underlying latent factors (Bryne, 2010) in this direct effect relationship. Meanwhile, the following measured indices assessed the model fit for the direct effect of Psychological Empowerment on Innovative Work Behavior measurement. The mode chi-square (X^2), the AGFI, the CFI, the NFI, the NNFI, the IFI, and the RMSEA are the fit indices that been investigated. Lastly, path analysis was conducted to test the Standardized Path Estimated (* $p < .05$) for the effect of psychological empowerment on innovative work behavior.

4. Findings

The findings of confirmatory factor analysis (CFA) confirm that all the item loadings and communalities value exceed the recommendation cut-off value of 0.5 item load and 0.3 communalities value, hence statistical significant (Hair, et. al., 2010). The Composite Reliabilities (CRs) for each constructs were also exceeding the minimum cut-off value of 0.7 (Hair, et. al, 2010). On other hand, the Average Variance Extracted (AVEs) of this model was exceeding the minimum cut-off 0.5 as suggested by Hair, et. al. (2010) and Tabachnick & Fidell, (2007). The internal consistency reliability to test unidimensionality was assessed by Cronbach's Alpha test. The acceptable threshold of this analysis was 0.70 suggested by Nunnally and Bernstein (1994) and the two structures pass the minimum requirement of this test. Accordingly, Table 1 below shows the result of model fit for this study.

Table 1: Result of Model Fit Indices for Direct Effect of Psychological Empowerment on Innovative Work Behavior Measurement Structure

Fit index	X^2/ df	AGFI	CFI	NFI	NNFI	IFI	RMSEA
Model	3.066	0.85	0.95	0.93	0.94	0.95	0.07

Based on Table 1 above, the observed normed X^2 for measurement model was 3.066 (X^2 = 493.61, df = 161) which is less than 5 indicating the model was fit. On other hand, other fit indexes showed a good fit for this measurement model. The AGFI index was 0.85, which exceeds the recommended cut-off level of 0.80. The CFI (0.95), NFI (0.93), NNFI (0.94), and IFI (0.95) index value were also exceeding the threshold recommended value of 0.90. The RMSEA was 0.07 and this index was below the cut-off level 0.10. The combination of these results suggests that the demonstrated measurement of the proposed model fits the data well. Meanwhile, Fig. 2 below shows the result of path analysis model.

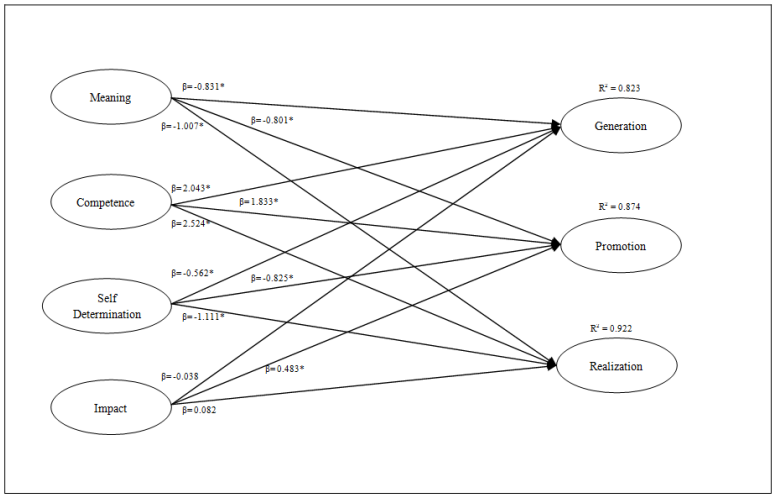

Fig. 2: Result of Path Analysis Model with Completely Standardized Path Estimated (* $p < .05$) for the Direct Effect of Psychological Empowerment on Innovative Work Behavior

Based on Fig. 2 above, the result of the structural model indicated that Meaning (β = -0.831, p <.05), Competence (β = 2.043, p <.05), and Self Determination (β = -0.562, p <.05) were significantly correlated to Generation, explaining 82.3% of variance explained (R^2 = 0.823), whereas the Impact (β = -0.038, p =.72) do not significantly correlated towards Generation. It is also indicated for the same situation where Meaning (β = -1.007, p <.05), Competence (β = 2.524, p <.05), and Self Determination (β = -1.111, p <.05) were significantly correlated to Realization, explaining 92.2% of variance explained (R^2 = 0.922), whereas the Impact (β = 0.082, p =.51) do not significantly correlated towards Realization. However, all independent measurements were all correlated significant toward Promotion: Meaning (β = -0.801, p <.05), Competence (β = 1.833, p <.05), Self Determination (β = -0.825, p <.05), and Impact (β = 0.483, p <.05), explaining 87.4% of variance explained (R^2 = 0.874).

5. Discussion and Conclusion

The result of the structural model indicated that psychological empowerment were significantly related to innovative work behavior among lecturers. In more specific, the finding of this study indicates that the dimensions of meaning, competence, and self-determination from psychological empowerment effect all the dimensions of innovative work behavior such as generation, promotion, and realization of new ideas. The dimensions of impact from psychological empowerment effect only one of the dimension of innovative work behavior, which is the promotion of new ideas.

The result show when the organizational mission and goal are congruent to the lecturers' own value system and make the lecturers' feel that their work is important (the dimension of meaning from psychological empowerment), they can be more empowered towards innovative work behavior. Therefore, it is important for the management to ensure the mission of research universities did not neglect and in line with the lecturers' own value system so they will be generating, promoting and realizing new ideas for research and development.

Accordingly, the result show when the lecturers' believe they are able to perform their job activities with the needed knowledge and skills (the dimension of competence from psychological empowerment), they can be more empowered towards the generation, promotion, and realization of new ideas (the dimensions in innovative work behavior). For that reason, it is essential for the management of research universities to provide ongoing training to fulfill the demanding needs of knowledge and skills for lecturers' in research universities as well as the lecturers' itself preparing themselves to be polish up to intended work role especially in research and development.

Consequently, the result show when the lecturers have self determination in making decision especially concerning work methods, procedure, time and effort (the dimension of self determination from psychological empowerment) they can be empowered towards innovative work behavior dimensions such as generation, promotion and realization of new ideas. Thus, the segregation of autonomy from the management of research universities towards the lecturers in deciding their own work methods, procedure, time and effort can empowered them in contributing to the generating, promoting and realizing new ideas, especially for research and development.

However, the result shows the extent on how far that the lecturers' believe that he/she can influence the strategic output, management and operation in the workplace (the dimension of impact from psychological empowerment), only empowered the promotion of new ideas (the dimension in innovative work behavior). Hence, the lecturers feel their more empowered in mobilizing support for innovative ideas; acquiring approval for innovative ideas; and making important organizational members enthusiastic for innovative ideas. Further research can be done to understand how the impact of the lecturers' can also effect the other dimensions of innovative work behavior such as generation and promotion of new ideas.

In conclusion, the research universities management should emphasize and encourage the potential psychological empowerment that been identified the effect on innovative work behavior of the lecturers' research and development. Accordingly, the lecturers' also must expose themselves optimally to the potential psychological empowerment identified in order to maximize their innovative work behavior in research and development.

6. References

[1] Byrne B. M. (2010). Structural Equation Modeling with AMOS (2nd edition): Basic Concepts, Applications, and Programming. Lawrence Erlbaum, Mahwah, NJ.R. Dewri, and N. Chakraborti. Simulating recrystallization through cellular automata and genetic algorithms. *Modelling Simul. Mater. Sci. Eng*. 2005, **13** (3): 173-183.

[2] Hair, J., Black, B. Babin, B., Anderson, R. and Tatham, R. (2010). Multivariate Data Analysis (7th edition). Upper Saddle River, NJ: Prentice-Hall.

[3] Kanter, R. M. (1988). "When a Thousand Flowers Bloom: Structural, Collective and Social Conditions for Innovation in Organizations." In B. M. Staw & L.L. Cummings (Eds.) Research in Organizational Behavior **10**: 169-211.

[4] Messmann, G., R. H. Mulder, et al. (2010). "Relations between Vocational Teachers' Characteristics of Professionalism and Their Innovative Work Behaviour " Emperical Research in Vocational Education and Training **2**: 21-40.

[5] Najib, T. A. R. (2010). 10th Malaysian Plan 2011-2015.

[6] Nunnally, J.C., Bernstein, I.H. (1994). Psychometric Theory. New York: McGraw-Hill.

[7] Scott, S. G. and R. A. Bruce (1994). "Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace " The Academy of Management Journal **37**(3): 580-607.

[8] Spreitzer, G. M. (1995). "Psychological Empowerment in the Workplace: Dimension, Measurement, and Validation." Academy of Management Journal **38**(5): 1442-1465.

[9] Tabachnick, B.G. and Fidell, L.S. (2007), Using Multivariate Statistics (5th edition). New York: Allyn and Bacon.

[10] Thomas, K. W. and B. A. Velthouse (1990). "Cognitive Elements of Empowerment: An Interpretive Model of Intrinsic Task Motivation." The Academy of Management Review **15**(4): 666-681.

[11] West, M. A. and J. L. Farr (1989). "Innovation at Work: Psychological Perspective." Social Behavior **4**: 15-30.

[12] Zaini Ujang (2010). Berpaksi Inovasi Mengangkasa Universiti Menjana Nilai Tinggi. Johor Bahru, Johor, Penerbit UTM.