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The Mediating Role of Learning Goal Orientation in the Relationship between Work Engagement and Innovative Work Behavior

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ABSTRACT

Underpinned by the broaden-and-build theory of positive emotions, this study posited that high level of work engagement will encourage academicians' innovative work behavior (IWB) through learning goal orientation (LGO). The mediating role of LGO in the work engagement and IWB relationship was also examined. Data were gathered through questionnaire survey completed by 265 academic staff from six public universities located in the northern and central regions of Peninsular Malaysia. The results indicated that academic staff members who are highly engaged at work would be more likely to exhibit a higher level of LGO, which ultimately tend to engage in IWB. Discussions enlighten LGO as a significant mediator in explicating the work engagement and IWB link, which provided full support to the underlying theory. Finally, practical ramifications and limitations of this study are also brought to fore.

Keywords: Innovative Work Behavior, Learning Goal Orientation, Work Engagement
JEL Classifications: M54, O39

1. INTRODUCTION

There has been increasing interest in the work behaviors of university academicians over the last few years. The growing interest stems, in part, from the recognition of the World Bank that "education" is one of the parameters in the knowledge economy index (World Bank, 2008). The knowledge-intensive sectors such as universities have been found to add more economic value as universities have large groups of knowledge workers or k-workers who have competence in creating and sharing knowledge through interdisciplinary collaboration within and outside the universities (Arokiasamy et al., 2011). The k-workers of universities consist of those academicians who hold positions as lecturer, senior lecturer, associate professor, or professor. Besides lecturing responsibilities, academicians also assume the role of researchers by getting involved in various research and development (R and D) activities and commercializing research output with the purpose of wealth creation for the universities and ultimately, the country. This group of people is very well-versed with the utilization of knowledge and information as strategic resources for commercialization purposes in all socio-economic activities. Hence, they are one of the key resources that should be utilized in contributing towards the nation's vision, which is to become a knowledge-based economy (k-economy) nation by focusing on the development of country's capacity for knowledge, creativity, and innovation (Malaysian Science and Technology Information Centre, 2010).

The ability of academicians to generate new knowledge and technology for commercialization is the key in ensuring the sustainability of a k-economy. Hence, academicians of Malaysian public universities who are involved in the conception and creation of new knowledge, theories, models, practices, systems, technologies, tools, and methods can be considered as one of the important groups of human capital to contribute to the k-economy. Therefore, the issues of innovative work behaviors (IWBs) of university academicians need to be highlighted as it can hugely

impact academicians' commitment and indirectly influence universities' ability in generating new knowledge required for a successful k-economy.

Past studies (Chughtai and Buckley, 2011; Masvaure et al., 2014; Montani et al., 2014) also revealed that work engagement can influence employees' learning intention, which subsequently yield positive impact on their later work behaviors, such as IWB. This proposes that there is an indirect relationship between work engagement and IWB. Therefore, learning goal orientation (LGO) was incorporated as a mediator to provide a better understanding on the relationship between work engagement and IWB. This study aimed to make a valuable contribution in this particular domain of research, particularly in eradicating the dearth of such literature in the context of public sector and provide a platform on which further research can be established.

Furthermore, prior studies (Chughtai and Buckley, 2011; Hui, 2013) explored the influence of work engagement on employee work behaviors such as LGO and IWB. However, these studies were conducted in the private sector, which limits the generalizability of the results in other contexts. In light of this, the research framework was replicated with the public universities as sample; different public universities were included in the sampling frame, and consequently the generalization of the results across Malaysian public universities was made possible. As such, this study is specifically conducted to contribute to the growing body of knowledge in the Malaysian public university domain and to examine how academicians' IWB can be influenced by their work engagement and LGO.

2. PROBLEM STATEMENT

2.1. IWB

Innovative is the degree to which employees engage in the action of generating and adopting something new to solve any kinds of problems that faced in their work systems (Hurt et al., 1977). As indicated by past studies (Janssen, 2000; West and Farr, 1989), IWB can be defined as creation, introduction and application of novel ideas within a work context, in order to enhance individual or organizational performance. Based on this definition, IWB can be divided into three behavioral tasks as suggested by Janssen (2000), namely (1) idea generation (i.e., the creation of innovative ideas); (2) idea promotion (i.e., getting support for innovative ideas); and (3) idea realization (i.e., try to apply the innovative ideas). Therefore, individual who have engaged in IWB are expected to be involved in the combination of these three behavioral tasks at any time (Scott and Bruce, 1994). Ferraresi et al. (2012) also concurred with this point of view, in which they indicated that IWB unveils behaviors that foster the creation, experimentation and implementation of new ideas. In addition to that, Scott and Bruce (1994) also pointed out that IWB is a complex behavior, which consists of the invention, presentation, and transformation of new ideas. IWB incorporates a set of activities aimed at the formulation, revision, adoption and execution of ideas within a work role. Clearly, it involves one's psychological empowerment to think and act creatively in seeing a situation or solution (Scott and Bruce, 1994). Individual employees who engaged in IWB are those who possess characteristics of openness to new ideas or experiences.

2.2. Work Engagement

Work engagement can be defined as a positive work-related psychological state that is characterized by vigor, dedication, and absorption (Balducci et al., 2010; Schaufeli et al., 2002). Vigor is referred as the willingness of an individual to work harder (Balducci et al., 2010). While, dedication refers to being strongly engaged and interested in one's work (Balducci et al., 2010). And, absorption means being happily engrossed in one's work (Schaufeli and Bakker, 2004; Balducci, et al., 2010). Generally, work engagement is intrinsic motivation of an employee toward his/her work. It is a positive and gratifying state of mind of an individual. Therefore, engaged employees may feel vigorous at work, enthusiastic in performing work tasks and are much immersed in any kinds of work they need to perform (Masvaure et al., 2014). Engaged employees are so into their work and find that they are fully engrossed in it. Hence, they will not sense any boredom or burdensome that is caused by heavy workload.

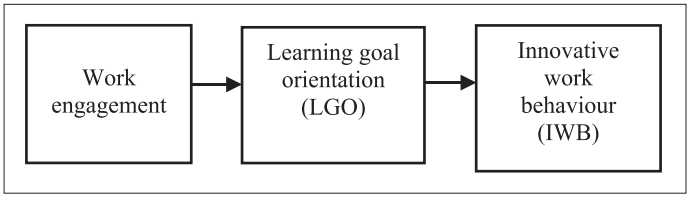
2.3. LGO

LGO is an individual's stable dispositional trait that demonstrate eagerness in learning and mastering new skills and situations. LGO also is an internal mind-set that encourages employees to advance their know-how by learning new talents (Dweck, 1986). Individuals, who are high on learning orientation, tend to be more confident in their ability to learn. Individuals with high LGO are likely to enhance personal competence by exploring opportunities to learn new skills as they believe that their competencies can be developed and improved through active learning. Learning is a positive motivational process whereby individual will strive to learn as much as possible through various ways to ensure that any kind of difficulties faced at the workplace can be solved. In essence, learning oriented individual is exposed to wider range of problem solving skills and they also perceived these challenges as the greatest chance for them to increase their professional competence. Learning oriented individuals are likely to work harder, precisely plan their work activities, think creatively and stay focused when they facing work difficulties (VandeWalle, 2001). They are persistent and diligent in the wake of obstacles (Dweck, 1986) whereby they will fully utilize each learning opportunities that they gained to advance their personal competence.

3. RESEARCH FRAMEWORK

Figure 1 depicts the research framework which comprised of three constructs, namely work engagement, LGO, and IWB. Based on the broaden-and-build theory of positive emotions, it is posited that the primary influence on individuals' motivation in learning

Figure 1: Research framework



is positive emotions (e.g., vigorous and enthusiastic) that has been experienced by an individual (Fredrickson, 2001; 2003). The pleasant motivation of an individual has the capacity to broaden his or her momentary thought-action repertoires and stimulate him or her to engage in a range of actions that come to mind (Chughtai and Buckley, 2011). Prior studies, such as Fredrickson (2001; 2003), Chughtai and Buckley (2011), concurred that "broadened mind-sets" resulting from fulfilling emotions such as enthusiasm, immerses, and engrosses tend to encourage individual to engage in learning actions. Hence, it seems plausible to assume work engagement, which is characterized by three positive work-related psychological state-vigor, dedication and absorption, as a positive emotional state. This condition influences individuals' thoughts and actions, which may prompt them to enhance their competencies through active learning (Fredrickson, 2003). This ultimately leads to the enactment of IWB. Sonnentag's (2003) study had empirically found that work engagement is an encouraging behavior that will increase an individual learning motivation that is to be eager in learning and mastering the new knowledge and skills and utilize it in arrays of creative form to solve any kind of problems that they faced at the workplace. This means work engagement impacts IWB by promoting individuals' motivation to learn new skills and knowledge through their active LGO. Therefore, it is posited that:

- H_1: Work engagement exerts a positive influence on LGO
- H_2: LGO exerts a positive influence on IWB
- H_3: LGO mediates the relationship between work engagement and IWB.

4. METHODS

4.1. Sample

The sample of this research comprises of academic staff from six Malaysian public universities located in the northern and central regions of Peninsular Malaysia, specifically three public universities randomly selected from Northern and central region of Peninsular Malaysia, respectively). The sample of this study includes only full-time academic staffs who have been working for a minimum of 2 years. Since some registrars of the public universities were unable to provide the exact number of academic staff as per pre-determined criteria, the rule of thumb suggested by Roscoe (1975) as cited in Sekaran (2003) was used. He proposed that sample size larger than 30 and smaller than 500 is appropriate, but sample size should be several times (preferably 10 times or more) than the number of variables in a multivariate analyses. In order to avoid the risk of non-responses that might affect the sample size, this research decided to distribute 600 set of questionnaires to the targeted samples. A technique of purposive sampling was used, in which the number of questionnaires in batches of 100 were equally distributed, (i.e., 100 sets of questionnaires were distributed through representatives to the six selected public universities) to each of the participating public university. Out of 600 questionnaires distributed, 283 questionnaires were returned. However, after dropping cases with outliers, 265 questionnaires were retained and usable for further analysis.

The respondents consisted of 146 male and 119 female. Most of the respondents were married (81.5%), and 44.2% of respondents are above 40 years old. In terms of academic achievements, 119 respondents (44.9%) have Master's degree while 146 respondents (55.1%) have Doctoral degree. With regard to job position, only 1.9% of respondents are tutor, 86 respondents are lecturers, 138 respondents are holding the position of senior lecturer, while 27 respondents are associate professor and the rest or 3.4% were professor. The majority of the respondents or 37.4% indicated that they have worked in the respective university between 4 and 7 years.

4.2. Measurements

Measures for IWB were adapted from Janssen (2000). This nine-item scale gauges academic staff's perception on his or her own intentions in generating, promoting, and applying innovative ideas within a work context in order to advance own and organization's performance. Meanwhile, LGO was measured by eight items that was adapted from Button et al. (1996) to assess the degree of academic staff desire to learn new skills. Besides that, the three dimensions of work engagement were measured using a nine-item scale adapted from Balducci et al. (2010) to reflect respondents' feeling of enthusiastic and affective connection with their work role. All the responses were made on a 5-point Likert-scale that ranged from (1) almost never to (5) very often except for LGO that used a 5-point Likert scale, ranging from (1) strongly disagree to (5) strongly agree.

5. FINDINGS

5.1. Validity and Reliability

Before performing validity analysis, the issue of common method bias (CMB) was assessed via the Harman's single factor test as suggested by Podsakoff et al. (2003). The result indicates that the first factor captured 33.13% of the variance in the data, which did not account for a majority of the variance. Hence, the CMB is not an issue in this study.

Validity and reliability were tested through the measurement model. The measurement model was analyzed by several tests that includes of item loading, convergent and discriminant validity. Table 1 indicates the factor loadings of all observed variables, which ranges from 0.560 to 0.855. None of the measurement items were deleted from further analysis since all the items' loading values were >0.50 (Hair et al., 2006). As illustrated in Table 1, the value of composite reliability for all variables were above the threshold value of 0.70 (Hair et al., 2014). Average variance extracted (AVE) for all constructs also is above the threshold value of 0.50 as suggested by Hair et al. (2014). Hence, it can be concluded that all the measurement items tested in this study showed sufficient convergent validity. Besides that, Table 1 also depicted that 20.7% of the variance of LGO was explained by work engagement. Meanwhile, 17.2% of the variance in IWB was explained by LGO.

Besides that, the discriminant validity of the measurement items was tested through the criteria as suggested by Fornell and Larcker (1981). As depicted in Table 2, each square root of AVE is more than correlation coefficient, thus discriminant validity is established. This means that there is no multi-collinearity of items in representing their hypothesized latent factors.

5.2. Test of Hypotheses

Before testing the hypotheses, the predictive relevance (Q^2) of the model was examined. To evaluate the predictive validity of a model, a cross-validated redundancy measure was assess via blindfolding procedure (Chin, 2010). As suggested by Peng and Lai (2012), if the Q^2 is >0 then the model can be viewed as having predictive relevance. Result revealed Q^2 statistic of LGO and IWB were 0.101 and 0.112, respectively, which is >0. Therefore, the model proposed has adequate predictive relevance.

Besides that, this study hypothesized that high level of work engagement will elevate individuals' IWB through their LGO. The results (Table 3) showed that work engagement had a significant influence on LGO ($\beta = 0.455$, $P < 0.01$). Meanwhile, LGO was also found to have a substantial influence on IWB ($\beta = 0.414$, $P < 0.01$). Hence, H1 and H2 posited earlier in this study were supported.

To test whether LGO significantly mediate the relationship between work engagement and IWB, bootstrapping, a nonparametric re-sampling procedure that does not impose the assumption of normality on the sampling distribution was used (Preacher and Hayes, 2008). Bootstrapping (500 resamples) was performed to generate *t*-statistics with the percentile bootstrap 95% confidence interval. If the confidence interval for a mediation hypothesis does not contain zero, it means that the indirect effect between independent and dependent variables is supported (Preacher and Hayes, 2008). The bootstrapping analysis (Table 3) found that LGO mediate the influence of work engagement on IWB. Therefore, H3 is supported.

Table 1: Results of convergent validity

Model construct	Measurement items	Loading	CR	AVE	R^2
Work engagement	EgV1	0.692	0.901	0.752	-
	EgV2	0.747			
	EgV3	0.560			
	EgD1	0.756			
	EgD2	0.792			
	EgD3	0.785			
	EgA1	0.567			
	EgA2	0.678			
	EgA3	0.756			
LGO	LGO1	0.667	0.890	0.504	0.207
	LGO2	0.760			
	LGO3	0.643			
	LGO4	0.666			
	LGO5	0.661			
	LGO6	0.798			
	LGO7	0.765			
	LGO8	0.702			
IWB	IWBg1	0.801	0.931	0.817	0.172
	IWBg2	0.780			
	IWBg3	0.758			
	IWBp1	0.770			
	IWBp2	0.837			
	IWBp3	0.822			
	IWBr1	0.844			
	IWBr2	0.837			
	IWBr3	0.855			

CR: Composite reliability, AVE: Average variance extracted, R^2: R square, IWB: Innovative work behavior, LGO: Learning goal orientation

Table 2: Discriminant validity of constructs

Constructs	1	2	3
Work engagement	0.867		
LGO	0.455	0.710	
IWB	0.297	0.414	0.904

Diagonals (in bold) represent the square root of AVE while the other entries represent the correlation coefficients. LGO: Learning goal orientation, IWB: Innovative work behavior

6. DISCUSSION

This research examined the mediating role of LGO in explaining the empirical linkage between work engagement and IWB. The findings affirmed the notion that work engagement has a direct effect on LGO. When academic staff feels vigorous at work, they will sense an urge to improve personal competence via learning new skills and knowledge in order to advance performance at work that permit them to continuously feel happy and engrossed in their work. Therefore, it is plausible that work engagement is a motivational resource that will prompt academic staff to expand their capabilities via arrays of learning programs. The finding of this study is consistent with Sonnentag (2003), Chughtai and Buckley (2011) who reported a significant relationship between work engagement and LGO. Similar result was also reported by Schaufeli and Bakker (2004), which suggested that highly engaged employees are those very committed to their work, which likes to seek opportunities for enhancement. Such needs for enhancement had encouraged them to get involved in learning activities, which will characterize themselves as learning orientated individuals.

The result of this research also found that LGO was positively related to IWB. This finding implies that academic staff members with a high learning motivation are more likely to exhibit IWB. As asserted by Baum et al. (2011), individuals with high learning orientation are more likely to engage in array of learning activities-in which they are keen to explore, learn new skills and knowledge via personal experiences in real-life situations and tried to apply it within a work role. The tendency to acquire new skills and knowledge and to integrate it into the existing work systems,

Table 3: Results of hypotheses testing

Hypothesis	Relationship	Direct effect	Indirect effect	t	Percentile bootstrap 95% confidence interval		Decision
					Lower	Upper	
H1	WE→LGO	0.455	-	6.889**	-	-	Supported
H2	LGO→IWB	0.414	-	7.401**	-	-	Supported
H3	WE→LGO→IWB	-	0.188	5.708**	0.124	0.253	Supported

t>2.33=Significant at **P<0.01, WE: Work engagement, LGO: Learning goal orientation, IWB: Innovative work behavior

encourage academic staffs to act creatively in order to make use of what they have learned. According to Horng et al. (2005), the learning motivation is a good seed for generation of novel ideas. This is because learning is a dialectical process that comprises both access to new knowledge and the ability to integrate such new knowledge into current knowledge sets (Baum et al., 2011). Given the nature of the job responsibilities of academic staffs, which mainly includes participation in arrays of R and D activities, they need to be keen in learning activities. This helps to improve their capability in the creating, promoting and dissimilating new knowledge, theories, models, practices, systems or methods for the purpose to benefit personal and university's performance.

This research also revealed that LGO mediate the link between work engagement and IWB. This finding suggests that academic staff high on work engagement, tend to promote their learning motivation (i.e., LGO) which in turn encourage them to engage in IWB. In line with the proposition of the broaden-and-build theory of positive emotions, academic staff members who experienced high levels of work engagement may be more likely to sustain their personal potential through various learning activities to acquire new knowledge and skills. Importantly, this in turn elevates their intention to be engaged in IWB. As pointed out earlier, academic staff is one of the key resources for a university to generate new knowledge and technology for commercialization purposes that required for k-economy. Thus, it is plausible that academic staff need to continuously involved in the learning activities and nurture themselves as a learning oriented individual. Being so, they will always be on the lookout for new knowledge that persist the new ideas creation, promotion and realization that values to the contribution for k-economy. In short, high levels of work engagement will promote IWB by promoting academic staff learning orientation.

7. IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

The authors would like to thank the Ministry of Higher Education, Malaysia for the funding grant given under FRGS to conduct this research and present the findings. The authors would also like to thank the educators within the Public Universities in Malaysia for their support and willingness to participate in this study.

This research has provided a theoretical implication by giving additional empirical evidence in the domain of broaden-and-build theory of positive emotions. Instead of focusing on the relationship between work engagement and employees' work behavior in a particular setting such as the private sector, this research has extended the application of theory by examining the aforesaid relationship with the samples drawn from the public sectors (i.e., Malaysian public universities). This is crucial because focusing on different research settings may expand the practicality of the theory.

Besides that, this study has also tested the mediating role of LGO on the relationship between work engagement and IWB. Prior studies (Chughtai and Buckley, 2011; Masvaure et al., 2014; Montani et al., 2014) proposed an indirect relationship between work engagement and IWB by suggesting LGO as the potential factor to intervene in the relationship. The results of this study made a valuable contribution to such literature, which revealed that work engagement will result in IWB through LGO, specifically in the context of Malaysian public universities.

The findings of this study also provide useful information to the present and future academic staff. This is because the core business of academicians encompasses mass new ideas creation, promotion and application in their routine work such as research, publication, teaching, supervision and consultancy. All these daily work tasks needs academic staff to be learning oriented and requires them to be always creative in solving problems and enhancing their job performance that is important to the wealth creation of university. Therefore, the university management, especially Registrar's Department may consider redesigning the work environment through implementing an innovative-orientated climate to facilitate the opportunity for learning. Increased opportunity to learn new knowledge and skills will likely foster the capability of academic staff to turn their creative ideas into reality. The Registrar's Department can also foster work engagement and learning motivation among academic staff through various learning, development, and support programs such as performance review, job enrichment/enlargement, training, workshop, mentoring, and career resources center are available, since all these programs are beneficial in facilitating academic staff motivation and enthusiasm for the job, and thus indirectly prompt their IWB to be more likely to contribute towards university's performance.

As far as the research limitation is concerned, this study only concentrated on academic staff in six Malaysian public universities located in the northern and central regions of Peninsular Malaysia. The study did not include any academic staff from public universities in the southern region or East Malaysia as well as private universities. Therefore, the results of this study could not be generalized to all academics in other public and private universities as they might have different work cultures, practices, management systems, and policies that might affect their work-related behaviors. Future researchers should consider widening the scope of population by incorporating academic staff from public universities in other parts in Malaysia as well as the private universities. As noted earlier, the results of this study indicated that 17.2% of total variance in IWB was explained by LGO, 82.8% remained unexplained indicating that there are other important variables not incorporated in this study. This finding suggests that academic staff IWB may be influenced by other mechanisms besides LGO. For instance, Li and Zheng (2014), Balkar (2015), and Stoffers et al. (2015) stated that organizational climate may facilitate employees' IWB. Drawing on this, future research might focus on identifying other potential mediating variables, which may be useful in explicating the linkage between work engagement and IWB. In summary, the research results have provided support for the key propositions. Most importantly, this study has succeeded in providing empirical evidences pertaining to the link between work engagement, LGO, and IWB.

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