



The Effect of Personal Factors on Creativity among Research Officers in Malaysia

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INTRODUCTION

- ◉ Employee creativity has been widely discussed in the field of human resource development.
- ◉ There are variety of factors that promote creativity among employees. (e.g., Amabile,1988, 2013)
- ◉ One of the major factors influencing employees' creativity is the employees' individual factors.
- ◉ Unfortunately, it is still unclear which factors within the individual employee proposed (i.e. openness to experience, creative self-efficacy, positive affect, and intrinsic motivation) may trigger their creativity.

INTRODUCTION

- ⊙ Consequently, this resulted to insufficient ways in deciding exactly how the employee are considered to be creative.
- ⊙ In fact, from the literature, it has been found that all the individual factors proposed were never been mutually studied before (e.g., Furnham & Bachtiar, 2008; Grant & Berry, 2011; Tierney & Farmer, 2002).
- ⊙ To shed light onto this matter, this study was designed to pool these four types of individual factors and observe their effects on creativity.
- ⊙ Researchers in the field of organisational creativity often addressed engineers, scientists, research personnel, managers, and designers as part of the context of their research (e.g. Kim, Hon, & Lee, 2010; Zhou & George, 2003).

INTRODUCTION

- ◉ Thus, this study addresses the issue of the development of employee creativity among Malaysian research officers.

- ◉ Public Services Commission of Malaysia (2012) described research officers working in public research institutes as those who can:
 - (a) conduct research and development (R&D) activities in certain field
 - (b) conduct fundamental and applied researches;
 - (c) provide expert consultations;
 - (d) spread the information regarding related technologies in the country;
 - (e) conduct researches on quality control; and
 - (f) conduct research and transfer of science and technology as well as the development and training courses for domestic consumers.

CONCEPTUAL MODEL OF STUDY

Independent Variable

INDIVIDUAL FACTOR

- Openess to experience
- Creative Self-efficacy
- Intrinsic Motivation
- Positive Affect

Dependent Variable

Creativity

- Fluency
- Flexibility
- Originality
- Elaboration

Methodology

Sample and procedures

- Sample was drawn from research officers working at one of the largest public research institute in Malaysia.
- Cross-sectional design was used and questionnaire was sent to 400 potential respondents.
- The questionnaire were returned within two weeks with 301 responses obtained.
- 15 outliers were deleted based on the Mahalanobis distance test, leaving a final sample of 286.

Demographic Profile

- From the 286 respondents, the tabulation of data receives almost equal distribution, which is 52.4% for male and 47.6% for female.
- For age group, the highest number of respondents are below 30 years old (143, 50%), followed by 31-40 years old age group (90, 31.5%).
- Respondents in this study are mainly from those who have less than 5 years of job tenure (146, 51%), whereby the least group is more than 20 years of service (10, 3.5%).
- Majority of the respondents are Bachelor's degree holders (188, 65.7%), followed by Master's degree holders (58, 20.3%), and doctoral degree holders (40, 14%).
- With respect to their position, 69.9% are research officers, 23.1% are senior research officers, and remaining 7.3% are principal research officers.

RESULTS AND DISCUSSION

Table 1: Regression Analysis

Predictor variables	Fluency		Flexibility		Originality		Elaboration	
	B	p-value	β	p-value	β	p-value	β	p-value
Openness to experience	0.283	0.000	0.071	0.350	0.024	0.743	0.341	0.000
Creative self-efficacy	0.058	0.316	-0.020	0.744	0.176	0.003	-0.057	0.331
Intrinsic motivation	0.039	0.584	-0.066	0.377	0.086	0.240	-0.115	0.110
Positive affect	-0.083	0.147	0.008	0.895	0.093	0.115	-0.019	0.748
ΔR^2	0.093		-0.010		0.046		0.067	
F	8.317		0.268		4.456		6.131	

RESULTS AND DISCUSSION

- ⊙ For fluency, the results in Table 1 show that openness to experience, creative self-efficacy, intrinsic motivation, and positive affect together explained 9.3% of the variance in fluency.
- ⊙ Openness to experience ($\beta = 0.283$) were significantly related to fluency. This result indicated that high openness to experience related to high level of fluency.

RESULTS AND DISCUSSION

- ⊙ For flexibility, the results in Table 1 show that that openness to experience, creative self-efficacy, intrinsic motivation, and positive affect together explained 1% of the variance in flexibility.
- ⊙ The results indicated that there are none of the individual factors that were related to flexibility.

RESULTS AND DISCUSSION

- ⊙ For originality, the results in Table 1 show that that openness to experience, creative self-efficacy, intrinsic motivation, and positive affect together explained 4.6% of the variance in originality.
- ⊙ Creative self-efficacy ($\beta = 0.176$) were significantly related to originality. This result indicated that high creative self-efficacy related to high level of originality.

RESULTS AND DISCUSSION

- ⊙ For elaboration, the results in Table 1 show that openness to experience, creative self-efficacy, intrinsic motivation, and positive affect together explained 6.7% of the variance in elaboration.
- ⊙ Openness to experience ($\beta = 0.341$) were significantly related to elaboration. This result indicated that high openness to experience related to high level of elaboration.

DISCUSSION AND CONCLUSION

- Openness to experience were related to fluency and elaboration
- creative self-efficacy were only related to originality,
- No effects of intrinsic motivation and positive affect were found on all creativity dimensions.
- It can be established that the most dominant individual factor that influences creativity is openness to experience, with two significant relations found between openness to experience.

DISCUSSION AND CONCLUSION

- The findings showed that openness to experience was positively associated with fluency among research officers in Malaysia.
- This result is consistent with previous study by Silvia, Nusbaum, Berg, Martin, and O'Connor (2009).
- They also proved that openness to experience has an effect on fluency indicating that high levels of openness were linked with high levels of fluency.
- Openness to experience was also found to positively associate with elaboration, signifying that high levels of openness were linked with high levels of elaboration.

DISCUSSION AND CONCLUSION

- Openness has been described as the degree to which a person is imaginative (Nolen-Hoeksema et al., 2014) and curious (McCrae & Sutin, 2009), thus it is promising for one that is open to achieve more ideas, patterns, and combinations, which then correlates to elaborate the ideas thoroughly to solve problems as well as creating new and innovative products and services.

DISCUSSION AND CONCLUSION

- ◉ Creative self-efficacy was positively associated with originality, but not with the other three components of creativity.
- ◉ Previous studies by Tierney and Farmer (2002, 2004) found that creative self-efficacy was positively associated with creativity without specifically pointing to which components of creativity.
- ◉ Therefore this study make a contribution by establishing the relationship between creative self-efficacy and the component of creativity which is originality.
- ◉ There are some reasons that can explain why creative self-efficacy only affecting originality, but not fluency, flexibility, or elaboration.
- ◉ Originality is an ability to produce ideas that are unique, unusual, and not generally produced. This concept is tailored to the specific application of Bandura's conceptualisation of self-efficacy as a targeted perception of capacity.
- ◉ Bandura (1997) explained that creative self-efficacy is a self-assessment of one's creative potential that specifically involves seeing oneself as being good in generating novel and exceptional ideas.

DISCUSSION AND CONCLUSION

- ◉ There were no effects of intrinsic motivation and positive affect on all components of creativity.
- ◉ These results were contradicted with previous studies as majority of previous studies proved that intrinsic motivation and positive affect were positively associated with creativity.
- ◉ In light of this contradiction, it may be assumed that in the context of Malaysian culture that is high in power distance, employees may be punished if they are not performed in their job i.e. be creative.
- ◉ An employee, although not intrinsically motivated, still performed in his/her job because it is what he/she is supposed to do ritually.
- ◉ It is also can be assumed that employees appreciate extrinsic rewards more than intrinsic rewards that motivate them to be creative and performed.
- ◉ For instance, as long as employees get a good pay, they will perform well although their ritual work is boring. Intrinsic motivation not influence creativity also because the absences of a third variable, such as support from organisation or supervisor as a moderator to stimulate the relationship.