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Chapter

Innovative Behaviour Mediates in the Relationship between Employee Creativity and Organisational Innovation

Khawar Hussain and Eta Wahab

Abstract

The telecommunications industries play a vital role in enhancing Malaysia's innovation level. In this perspective, telecommunications industries need innovative human resources development. Therefore, the study attempts to examine the effect of employee creativity (EC) on organisational innovation (OI) through the mediating role of innovative behaviour (IB). A quantitative study was conducted by survey questionnaires to the employees of telecommunications industries in Malaysia. In addition, structural equation modelling (SEM) is used to determine the effect of employee creativity on organisational innovation through the mediating role of innovative behaviour with the support of the componential theory of organisational creativity and innovation. Finally, the results found that innovative behaviour significantly mediated in the relationship between employee creativity and organisational innovation. Thus, the research study has had a beneficial effect on innovation in the telecommunications industries in Malaysia.

Keywords: organisational innovation (OI), innovative behaviour (IB), employee creativity (EC), quantitative study, structural equation modelling (SEM)

1. Introduction

The most beneficial of those original ideas that must be put into practice in order to provide new products and services to the market is what makes innovation a crucial asset for organisations [1–3]. Current research has thus highlighted the significance of creativity in the success and expansion of OI [1, 3]. Goepel et al. [4] and NaranjoValencia et al. [5] claim that human resources are responsible for developing new ideas that are the result of human brains and may then be transformed into new working methods, systems, products, services and procedures. In contrast, OI is based on a fundamental factor (i.e., workers' IB) over a range of innovation levels [3, 6]. Similar to this, IB introduced a self-action innovation approach in which staff members conceive, implement, promote, acknowledge and revise new ideas [7, 8].

However, employee creativity (EC) affects employee behaviour by creating fresh norms and motivating staff [9, 10]. Additionally, in innovative organisations, people's creativity and IB have a significant role in fostering innovation [5, 11]. Numerous studies [3, 9–13] examined the significance of EC and imaginative employee behaviour in organisational innovation (OI), survival and success. However, whereas many academics have studied the connection between EC and IB [9, 10], only a small number have focused their attention on IB in order to connect with OI [3, 5]. For instance, OI calls for both EC and IB (idea generation and implementation) [3, 9]. The connection between EC, IB and OI, on the other hand has received minimal consideration in theoretical and empirical research, revealing a research gap that calls for the creation of an evidence-based theoretical model for fostering innovation. The study's objective was to examine the connection between EC, IB and OI. A comprehensive analysis of the literature also exposes "gaps" in relation to the problem and aim. Does IB mediate in the relationship between EC and OI in Malaysia's telecommunications industries? This and other issues are described by the research. The study also intends to provide a theoretical framework for organisational innovation in Malaysian telecommunications industries and analyse the mediating role of IB in the link between EC and IO. The current study, which is quantitative research, significantly contributed in the componential theory of organisational creativity and innovation. The empirical study, on the other hand, discusses dense literature that makes easy to understand the relationship between EC, IB and OI was related to the creation of hypotheses in the setting of organisations. Finally, the limitations and future research directions were explained.

2. Literature review

A number of researchers have recently examined the connection between EC and IB; in contrast, the impact of IB on OI has been investigated. As a consequence, the association between EC, IB and OI is taken into account in the literature review.

2.1 Employee creativity (EC)

In the professional and organisational context, creativity has the power to provide novel and valuable ideas [12, 14]. According to Zhou and George [15], an idea cannot be deemed creative unless it is both useful and novel. The distinction between "Big C" and "Little C" creativity—i.e., "Big C" creativity that results in a significant breakthrough to occur for products or service changes on a regular basis and "Little C" creativity that we perform for minor additions or to solve problems in our daily lives—was also revealed by Joo et al. [16]. The distinction between historical (H) and psychological (P) creativity was made by Boden [18] in contrast. P creativity refers to ideas that are created on a personal basis, while H creativity refers to concepts that are "fundamentally original given the totality of human history" [17–19]. Some experts describe creativity as the creation of unique and advantageous ideas for procedures, services, goods and approaches [20, 21]. The research examined the definitions used for innovative ideas, innovative business plans and innovative approaches to problems at work and in the workplace [22]. When developing new procedures or products, creative outcomes may vary from minor adjustments to workflow or product breakthroughs [23].

2.2 Innovative behaviour (IB)

The words “innovative behaviour (IB)” and “innovative work behaviour (IWB)” used by De Jong and Den Hartog [24] refer to the same concept. IB was introduced as a revolutionary idea by West and Farr [25] and Yuan and Woodman [13] to allow workers to create or improve the rules, practices and products at their organisation or corporation. Innovative behaviour (IB) involves psychological and social benefits (including better communication, higher job satisfaction and better job fit) in addition to enhanced organisational performance, according to Janssen [26]. Individuals, groups, or organisations may all take IB activities. The three stages of IWB disclosure are concept generation, idea promotion and idea implementation [27]. The first step is identifying problems and novel solutions; the second is finding support and forming alliances to put the novel solutions into practice; and the third is institutionalising and disseminating the novel solutions once they have attracted sufficient support to carry out the procedure and produce a prototype [27]. Thirteen leadership behaviours that are used to encourage innovation in practices, processes, goods and services have been identified by De Jong and Den Hartog [28] and are linked to the creation of new ideas. In [28], these actions are mentioned. (For instance, task assignment, oversight, resource provision, inducements, acknowledgement, organisation of feedback, support for creativity, delegation, advising, providing vision, promoting information dissemination, intellectual stimulation and creative role modelling). The four facets of IB were also mentioned by De Jong and Den Hartog [24] (idea exploration, generation, championing and implementation). Yuan and Woodman [13] and West and Farr [25] both claim that workers’ IB generates service procedures and difficulties at work. This behaviour includes seeking for novel ideas, including new work practices, technology, services and products, as well as ensuring the purchase of resources needed to put novel concepts into practice. In a similar vein, scholars and practitioners have neglected the notion of innovative behaviour for decades [29, 30] despite the fact that these factors—such as the development, transfer, modification and implementation of new ideas—as well as IB obviously encourage it.

2.3 Organisational innovation (OI)

Academics and professions utilise several definitions of innovation. Schumpeter [31], for instance, defined the role of innovation as a crucial element of economic change that revolves around entrepreneurial activities and innovation market power, demonstrating that market forces originating from innovations can afford better outcomes than price rivalry and the hidden hand. Innovation is “the creation, recognition, and execution of new ideas for process, services, or product,” according to Thompson [32].

Innovation may be utilised to effectively implement new procedures, services, products and processes for the benefit of a firm and its stakeholders, according to West and Anderson [33] and Wong et al. [34]. Innovation is seen as a way to change an institution, either as a proactive action to influence the environment or as a reaction to change in the external environment, according to Damanpour [35]. Plessis [36] The researcher said, “Innovation is the generation of new information to support new business outcomes, anticipated at enhancing structures, and internal business processes to develop market-driven service and product items.” The OECD claims that innovation is integrated into business operations or external relationships by

using a new organisational method, marketing strategy, process, or product that embraces innovation in non-technological, technological, marketing, process and product areas like goods and services [37]. Additionally, some scholars classified two kinds of innovation (i.e., incremental innovation and radical innovation). While incremental innovation involves significant changes made to the existing processes or items, radical innovation involves the complete introduction of a new method or product to the market [38]. For instance, Nadkarni et al. [39] and Perry-Smith and Mannucci [40] both define radical innovation as collecting new knowledge, skills, and new processes and executing change inside the organisation. However, in recent years, a theory of disruptive innovation has been emphasised to discourse in innovation perspective, which is a strong style of thinking and to encourage innovation-driven development [41]. Radical innovation is not required to incorporate disruptive innovation. Disruption is defined as a procedure by which the services and items are fashioned with simple stages from the bottom of a market that assists in moving upmarket to maintain among competitors and effectively manage the issues of tiny enterprises [41]. But Bedford et al. [42] and Benner and Tushman [43] showed that incremental innovation is defined by the extension of an organisation's current capabilities to represent the protection of surviving capabilities, to apply fundamental technology and to rely on existing industry knowledge [1].

2.4 EC and IB

Both constructs EC [15] and IB [27] are independently revealed in earlier literature and represented a process for turning a novel idea into an implementation technique [13, 44]. As an example, creativity is presented in the first phase as the development of original and workable ideas [12], to offer a fresh procedure, approach, or method to an organisation [23, 45]. In addition, when frontline personnel manage the solution to the issue of consumers while providing their job services, it consumes employee creative engagement such as cognitive process [46]. The same goes for cognitive engagement, which is a cognitive construct and not a behavioural one [47]. The implementation of innovative ideas [27] and a problem-solving strategy at the workplace or organisational level [48] are shown by IB in the second phase. Additionally, the form of creative interaction is much more crucial to the implementation of fresh ideas at work [10]. As a consequence, recent study produced findings that indicated EC greatly affected employees' IB [10]. The findings of a different investigation revealed that EC alone accounted for around 47% of the variation of IB [9]. A key aspect of IB that is highlighted in contemporary research is creativity.

2.5 IB and OI

The literature study suggests that IB is a behaviour of workers that plays an unusual or discretionary function [49, 50] and that carries out a concept that has been produced and promoted inside the company [13, 26]. IB is a multifaceted concept that includes a variety of employee behaviours, including problem-solving by coming up with ideas, spotting opportunities or problems, or seizing them, evaluating ideas, endorsing promotions, securing funding and finding supporters for applying ideas' requirements and creating implementation plans [24, 27]. IB is also connected to the idea of learning, namely exploratory learning [51]. Additionally, IB is linked to learning [52] in an organisational setting, which encourages employee cooperation, the

unlearning of previously formed beliefs, experimentation, revision, or knowledge gain, among other things. The capacity to identify, evaluate and implement new skills, abilities and knowledge inside an organisation is encouraged through exploratory learning [53]. IB is said to support innovation by helping to shape new services or products, according to researchers [4–13, 49]. In a study by Fu et al. [54], 120 Irish accounting businesses were chosen for the purpose of data collection, and it was discovered that IB strongly correlated new customers and new services (i.e., employed the instrument of innovation). IB, additionally, refers to a person's capacity to develop and execute ideas that result in innovation [5]. IB associates to the phases of the innovation process [3]. For instance, some researchers discovered encouraging findings showing that IB strongly correlated with new product originality on the one hand and IB positively correlated with new product radicalness on the other [3]. Additionally, Naranjo-Valencia et al. [5]'s noteworthy research shown a good correlation between IB and OI (i.e., radical product innovation).

2.6 Componential theory of organisational innovation and creativity

Amabile's [12] componential theory of organisational creativity and innovation defines innovation as "the execution of the novel idea at the job," along with management practices, intrinsic motivation, creative skill, expertise, resources, organisational motivation and environment [20, 55]. Creativity is defined in an organisation as "the ability to generate new and useful ideas." Expertise, skills, and intrinsic motivation are a few examples of the human characteristics that foster creativity. Expertise is described as unique abilities, competence and knowledge in the field of work, while intuitive motivation is defined as a personal feeling of interest, participation and happiness at work [20, 55, 56]. Skills are a part of a cognitive inclination to experiment with various working approaches, propose new ideas and adopt novel perspectives. The environment and resources are in place to support performance (such as innovation), management practices foster employees' capacity for original thought and aid in the presentation of innovative work within the context of the organisation, and management systems encourage the use of cutting-edge administrative practices and technologies at work to achieve organisational innovation [57]. Individual, social and organisational creativity also promote innovation [58, 59]. Since services are a key component of economic activity in modern societies [60, 61], organisations hope that EC and OI will support their marketing strategies, product delivery and company operations with enhanced knowledge-based business services [62, 63]. For instance, it was found that 94 groups effectively fulfilled 13 different goals by using intrinsic motivation, ability and innovation [22] in accordance with Amabile's [12] componential theory. Both innovation and creativity have advantages, but they also reinforce one another [14, 64]. Amabile's [12] componential theory, which links a range of components (such as psychological factors, leadership styles, organisational factors, EC, IB, OI and performance) in an institutional environment, was lastly articulated by Amabile and Pratt [65].

3. Theoretical framework

The prior research literature review conducted on the connections between EC and IB [9, 10] and between IB and OI [3, 5]. There is relatively little study on the effect of EC on IB to change OI using Amabile's (12) componential theory as support. However,

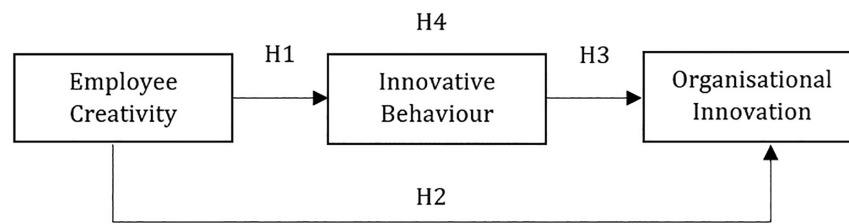


Figure 1.
Theoretical framework.

there has not been enough research done on how EC, IB and OI are related. As a result, the theoretical framework closes a gap by making clear the links that still need to be understood and by incorporating earlier studies to address discrepancies in the literature (**Figure 1**).

In conclusion, IB exists in the link between EC and OI, as shown in **Figure 1**, in conclusion. Literature proved specifically how strongly EC associated IB and OI. Additionally, IB and OI are connected. As a result, OI is highly influenced by both factors EC and IB.

3.1 Hypotheses statement

- H1: EC has a positive relationship with IB.
- H2: EC has a positive relationship with OI.
- H3: IB has a positive relationship with OI.
- H4: IB mediates in the relationship between EC and OI.

4. Methodology

4.1 Research design, context, population and sample size

A survey approach is used in this study to gather primary information for empirical analysis. Using a nonprobability—convenience sampling strategy, this research used a deductive methodology [66–69]. Additionally, the sampling method adhered to the guidelines for using structural equation modelling (SEM) [66, 67]. For a covariance-based structural equation modelling (CB-SEM) analysis, Iacobucci [68] suggested a sample size of 200 or more [66–68, 70]. The target audience of this research is thus managers and staff members employed by Malaysia’s major five telecommunications companies, namely Axiata Group Berhad, Celcom Digi Berhad, Maxis Communication Berhad, Telekom Malaysia Berhad and TIME Dotcom Berhad [71, 72]. Additionally, G-power software was used to determine the necessary sample size of 210 [73]. However, the 250 questionnaires have been distributed by organisations. Each organisation has been given one of the 50 questionnaires. So, we received 230 questionnaires from managers and their subordinates in order to get the needed sample size response of 210 or more.

4.2 Measurement of variables

Self-reporting on multi-item measures drawn from earlier research was used to assess each variable. A five-point Likert-type scale was used to assess each metric,

with 1 denoting strongly disagree and 5 denoting strongly agree. The reflective constructs—namely, causality direction, interchangeability, covariation and indicator consequences—were applied in the research investigation [74]. Therefore, the research study included first-order reflective components that were modelled as EC, IB and OI (see Appendix H and Figure H1).

Additionally, 13 questions from prior research were used to quantify employee creativity as a first-order construct [15]. Innovative behaviour: six questions that examined reflective behaviour as a first-order construct were used [13, 27]. Organisational innovation: it was evaluated using four questions that were accepted as first-order constructs to assess administrative innovation [75].

4.3 Demographic information

Demographics information (i.e., gender, age, qualification, experience and telecommunications industries) were included in the data. In all, 47% of respondents were male and 53% were female. 21.3% of respondents were less than 29 years old, while 53% were between the ages of 30 and 39 years, 14.8% between the ages of 40 and 49 years, and 10.9% were older than 50 years. In terms of education, 13% had finished high school and secondary school, 26% had a diploma, 52.2% had a bachelor, 7.9% had a master and 0.9% had a PhD degree. In terms of experience, 11.3 per cent had under 4 years, 19.5 per cent had between 5 and 8, 34.8 per cent had between 9 and 12, 15.7 per cent had between 13 and 16, and 18.7 per cent had above 17 years. We obtained 20.4 per cent of our data from Axiata Group Berhad, 20 per cent from Maxis Communication Berhad, 20 per cent from Celcom Digi Berhad, 20.9 per cent from Telekom Malaysia Berhad and 18.7 per cent from TIME Dotcom Berhad about the telecommunications industry. **Table 1** provides the demographics information.

4.4 Data analysis and results

In order to perform SEM to test the hypotheses, we utilised the Smart PLS 3.2.8 software [66, 67, 76]. This is a reliable and thorough statistical approach that may be used for first-order causal research and does not need making rigid assumptions about the reflective variables [66–74, 76]. The CB-SEM analysis was used to produce bootstrap t-statistics to evaluate the statistical significance of the route coefficients [66–74, 76].

4.5 Measurement model evaluation

The indicators for each reflective latent variable's individual reliability, construct reliability and convergent validity are provided in Appendixes C and H (see Table C1 and Figure H1). In addition, indices are provided to help with the precise computation of first-order reflective constructions (see Appendixes C, E, G, H and Table C1, E1, G1, and Figure H1). Because their standardised loadings are above the lowest acceptable value of 0.7 [66, 67], the dependability of individual items covering the reflective constructs of EC, IB and OI was judged satisfactory.

Additionally, all of the reflective constructs had composite reliabilities (CR) of 0.7 or above, supporting the construct dependability [66, 67]. Last but not least, the average extracted variance (AVE) was higher than 0.50, confirming convergent validity [66, 67].

Variables showed very little collinearity (see Appendix G and Table G1), since their individual variance inflation factors (VIF) varied much below the standard cut-off value of 5 [66–74, 76]. Therefore, it may be said that no concept experiences

Variables	Classification of variables	Frequency	Percentage (%)
Gender	Male	108	47%
	Female	122	53%
	Total	230	100%
Age	Under 29	49	21.3%
	30–39 years	122	53%
	40–49 years	34	14.8%
	Above 50 years	25	10.9%
	Total	230	100%
Qualification	Secondary and high school	30	13%
	Diploma	60	26%
	Bachelor's degree	120	52.2%
	Master degree	18	7.9%
	PhD	2	0.9%
	Total	230	100%
Experience	Less than 4 years	26	11.3%
	5–8 years	45	19.5%
	9–12 years	80	34.8%
	13–16 years	36	15.7%
	17 years or more	43	18.7%
	Total	230	100%
Telecommunications industries	Axiata Group Berhad	47	20.4%
	Maxis Communication Berhad	46	20%
	Celcom Digi Berhad	46	20%
	Telekom Malaysia Berhad	48	20.9%
	TIME Dotcom Berhad	43	18.7
	Total	230	100%

Table 1.
Demographics information.

significant levels of collinearity. We may also draw the conclusion that the reflecting measurement model was successful as a result. Appendix C provides proof that the AVE for each of the reflective constructs is larger than the variance shared with the other components, supporting the discriminant validity (see Appendixes D, F and Tables D1, F1) of reflective measures [66–74, 76]. An additional alternative approach (such as a cross-loading matrix) (see Appendix E and Table E1) revealed that all the indicators of measures loaded more strongly on their intended constructs than in others, which further supported discriminant validity [13, 15, 67, 74–77]. In order to evaluate discriminant validity, the heterotrait-monotrait (HTMT) ratio values were also examined (see Appendixes D, F and Tables D1, F1). According to [66–74, 76], HTMT is defined as the ratio of the average heterotrait-heteromethod correlation to the average monotrait-heteromethod correlation.

Hypotheses	Standard beta	Standard error	T-statistics	P-values
H1: Employee creativity - > Innovative behaviour	0.57	0.05	10.82	0.00
H2: Employee creativity - > Organisational innovation	0.19	0.05	3.89	0.00
H3: Innovative behaviour - > Organisational innovation	0.58	0.05	11.63	0.00
H4: Employee creativity - > Innovative behaviour - > organisational innovation	0.33	0.04	8.86	0.00

Table 2.
Direct and indirect hypotheses.

The findings of HTMT ratios show in Table F1 (see Appendix F) that they are less than 0.85 [66–74, 76]. The study’s findings thus supported the first-order reflective constructs of EC, IB and OI.

4.6 Structural model evaluation

The direct and indirect effects of H1–H4 are shown in **Table 2** (see Appendix I and Figure I1). The findings support the following hypotheses: H1: employee creativity has a significant positive relationship with innovative behaviour ($b = 0.57$, $t = 10.82$); H2: employee creativity (EC) has a significant positive relationship with organisational innovation ($b = 0.19$, $t = 3.89$); H3: innovative behaviour has a significant positive relationship with organisational innovation, regarding contribution; and H4: innovative behaviour significantly mediated in the relationship between EC and OI. As a result, this research supports the contribution that IB mediated the relationship between EC and OI. H1, H2, H3 and H4 are thus supported (see Appendix I and Figure I1).

As a result, the findings emphasise the need for better working conditions in terms of the creativity and innovative skills needed for organisational innovation. It is also important to provide a conducive working environment, along with inherent motivators, as this may demonstrate a positive relationship between employees’ creativity and innovative behaviour for enhancing innovation.

4.7 Assessment of R2 and Q2

The research study assessed the model’s in-sample fit, and we discovered that the endogenous constructs (organisational innovation) gained R2 values ($R^2 = 0.499$) and F2 values (0.46) (see Appendixes A, B and Table A1, B1) [66, 67]; this means that employee creativity and innovative behaviour (R2) have a closed to moderate effect on organisational innovation, which can be viewed that IB has a mediation effect on the relationship between EC and OI. To illustrate the interpretation (organisational innovation), we focus our study on the major target construct of the model, but we also provide the predictor estimate statistics for the other endogenous constructs. Furthermore, we discover that every indicator produces Q2 prediction values greater than 0 (see Appendix J and Figure J1) [66, 67]. This implies that the statistical output of the existing indicator data is improved by a theoretically designed route model. We may thus infer that our model is very predictable [66, 67].

5. Discussion and implications

The main intention of this study was to develop a model that was expected to provide insight into the distinct factors (i.e., employee creativity and innovative behaviour) significantly influenced organisational innovation that could be used as a guide for encouraging employee creativity and innovative behaviour among employees of telecommunications industries in Malaysia, with a view to discussing the potential benefits of using employee creativity and innovative behaviour for increasing organisational innovation at telecommunications industries in Malaysia that are a major contributor to the innovation of a country and also a determinant of its citizens' ability to compete both nationally and globally. The need to tackle this negative performance of employees is beyond any doubt. Creativity and innovative behaviour among employees have been identified as a platform towards handling emerging issues to improve the knowledge, skill, ability, quality and performance. As a result, this study sought the view of telecommunications industries in Malaysia on its employees willingness to be creative and innovative in their coaching, training and learning activities through quantitative research strategy.

5.1 Theoretical implications

The study increased to the literature in the fields of creativity, innovative behaviour and organisational innovation through the formulation, development and analysis of theoretical models, as well as the evaluation of mediating effects derived from the structural model. In addition, building and examining a theoretical model that empirically tests and validates the mediating effect of innovative behaviour on the relationship between employee creativity and organisational innovation.

To begin with, as a result of this research, the four hypotheses that state that employee creativity has a positive and significant effect on innovative behaviour and organisational innovation at telecommunications industries in Malaysia were confirmed. Likewise, innovative behaviour significantly mediates the relationship between employee creativity and organisational innovation. As a result of its novelty, the present research investigated the statistically significant and positively related indirect effects of employee creativity on organisational innovation via innovative behaviour. Additionally, the research indicates that employee creativity may create an atmosphere and working circumstances that can assist his workers in improving their innovative behaviour by including as an outcome variable (i.e., organisational innovation and the body of knowledge is also enhanced by providing fresh and significant insights to academics.

5.2 Managerial implications

Managers may focus on human resource qualities and attributes that can be measured, developed and improved in today's workplace. Top management may drive workers to be creative. Those employees who are more likely to grasp an issue from numerous viewpoints, seek varied solutions and generate innovative alternatives will recognise the significant improvement in their job and organisational innovation. It is possible that management is concerned with most effectively generating innovative behaviour by affecting employee creativity. Although, the innovative behaviour acts

as a mediator in the association between employee creativity and organisational innovation at telecommunications industries in Malaysia. The empirical results are important for managers of telecommunications industries in Malaysia because adopting current research is useful and helpful for training staff to improve their creative and innovative skills to achieve innovation goals.

5.3 Limitations and future research

The limitations strengthen the research as well as research conducted on the top five telecommunications industries (i.e., Axiata Group Berhad, Maxis Communication Berhad, Celcom Digi Berhad, Telekom Malaysia Berhad and TIME Dotcom Berhad) in Malaysia in order to acquire information about the company's problem statement as well as the indirect effect of employee creativity on organisational innovation by mediating role of innovative behaviour with the support of componential theory of organisational creativity and innovation. To conclude, research methodology, quantitative study, convenience sampling and a survey instrument are adopted. Structural equation modelling and SmartPLS software are used for data analysis.

There are several areas for future directions. For instance, to enhance the generalisability, research scholars would like to be recommended to examine the developed theoretical model and determine the linkages between employee creativity, innovative behaviour and organisational innovation in other organisations such as manufacturing, food processing, banking, and post office operations, education, information technology, and product recycling sectors. Furthermore, the research study may differ in other nations/countries with different norms and values. In the future, empirical examinations in various cultural and social contexts may be required to determine the generalisability of the current research paradigm. However, the theoretical framework will be used with the AMOS software for data analysis to get the results of the measurement model, structural model and goodness-of-fit model for enhancing generalisability of the research study.

5.4 Conclusion

Finally, research shows that innovation is the process through which creativity creates the concept that is used by IB to create a tangible version of an innovative product. The study is only able to show how EC, IB and OI relate to one another in an organisational setting. The IB of workers may be improved by managers using the EC to raise a company's degree of creativity. Future studies may look at how EC affects IB to effect OI. Additionally, the theoretical framework may be used to students and workers at different organisations (e.g., services and manufacturing) and countries.

A. Appendix

See **Table A1**.

Constructs	R-square	R-square adjusted
Innovative behaviour	0.32	0.32
Organisational innovation	0.50	0.49

Table A1.
R-square.

B. Appendix

See **Table B1.**

	Innovative behaviour	Organisational innovation
Employee creativity	0.47	0.05
Innovative behaviour		0.46

Table B1.
F-square.

C. Appendix

See **Table C1.**

	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
Employee creativity	0.94	0.95	0.95	0.58
Innovative behaviour	0.93	0.93	0.94	0.73
Organisational innovation	0.85	0.87	0.90	0.69

Table C1.
Construct reliability and validity.

D. Appendix

See **Table D1.**

	Employee creativity	Innovative behaviour	Organisational innovation
Employee creativity	0.76		
Innovative behaviour	0.57	0.86	
Organisational innovation	0.52	0.69	0.83

Table D1.
Discriminant validity (Fornell-Larcker criterion).

E. Appendix

See **Table E1**.

Items	Employee creativity	Innovative behaviour	Organisational innovation
C1	0.71	0.45	0.36
C10	0.76	0.46	0.53
C11	0.74	0.44	0.50
C12	0.77	0.42	0.45
C13	0.82	0.49	0.52
C2	0.74	0.36	0.30
C3	0.78	0.43	0.33
C4	0.74	0.33	0.22
C5	0.78	0.37	0.33
C6	0.80	0.51	0.46
C7	0.74	0.39	0.27
C8	0.75	0.40	0.30
C9	0.77	0.47	0.35
IB1	0.55	0.86	0.59
IB2	0.48	0.85	0.59
IB3	0.51	0.88	0.66
IB4	0.43	0.81	0.49
IB5	0.48	0.88	0.62
IB6	0.45	0.85	0.59
OI1	0.43	0.47	0.77
OI2	0.42	0.48	0.84
OI3	0.44	0.56	0.86
OI4	0.43	0.72	0.84

Note: C = creativity, IB = Innovative behaviour and OI = organisational innovation.

Table E1.
Cross-loadings.

F. Appendix

See **Table F1**.

	Employee creativity	Innovative behaviour	Organisational innovation
Employee creativity	1		
Innovative behaviour	0.59	1	
Organisational innovation	0.55	0.75	1

Table F1.
Heterotrait-Monotrait ratio (HTMT).

G. Appendix

See **Table G1**.

Items	VIF
C1	3.20
C10	3.73
C11	2.98
C12	3.52
C13	4.79
C2	4.45
C3	3.61
C4	4.50
C5	4.70
C6	4.18
C7	3.08
C8	3.91
C9	3.85
IB1	3.50
IB2	2.94
IB3	3.55
IB4	2.80
IB5	3.82
IB6	3.11
OI1	1.76
OI2	2.56
OI3	2.54
OI4	1.82

Note: C = creativity, IB = Innovative behaviour and OI = organisational innovation.

Table G1.
Collinearity statistics (VIF).

H. Appendix

See **Figure H1**.

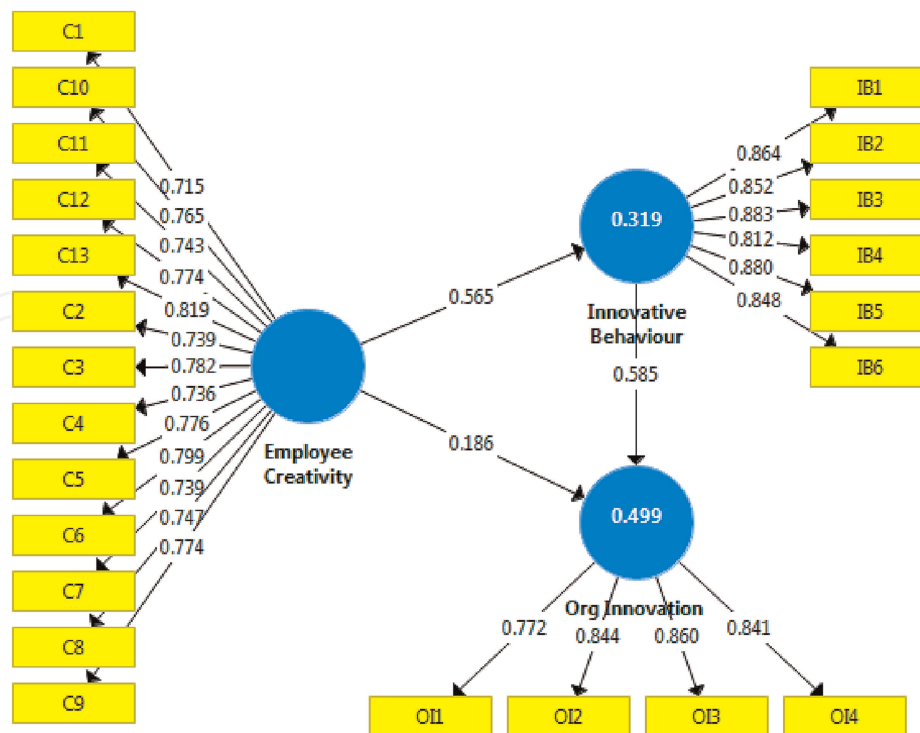


Figure H1.
 Measurement model. Note: Org innovation = Organisational innovation.

I. Appendix

See Figure I1.

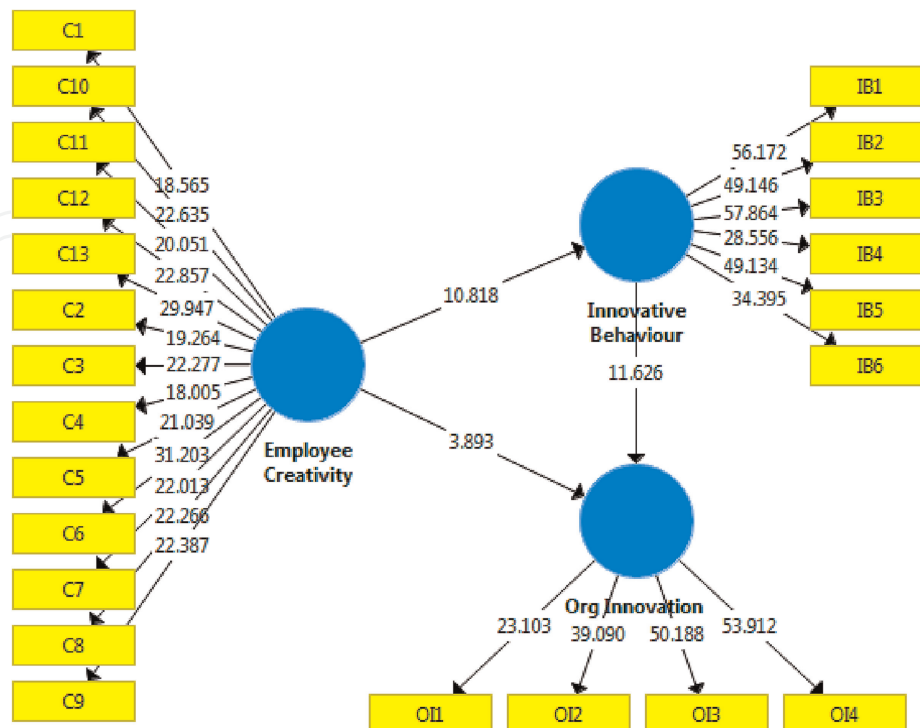


Figure I1.
 Structural model. Note: Org innovation = Organisational innovation.

J. Appendix

See Figure J1.

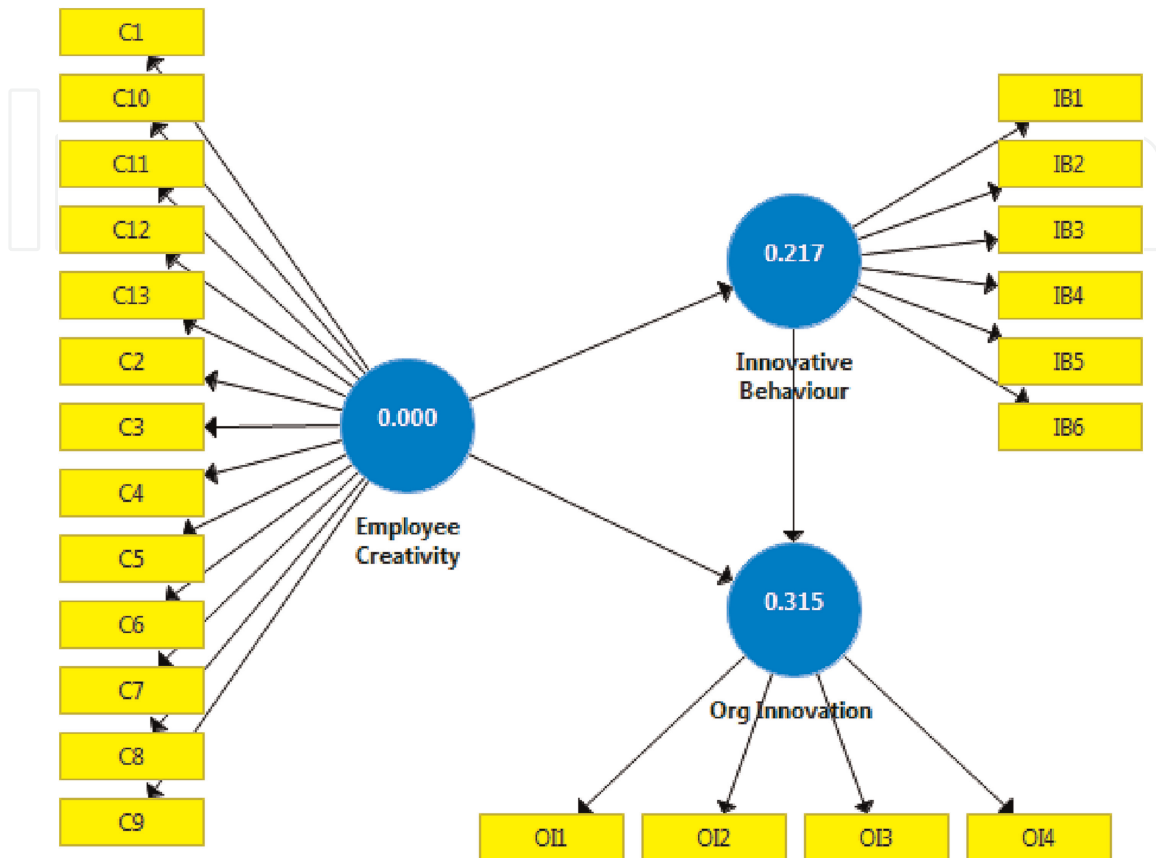


Figure J1.
Predictive relevance Q-square (Q_2). Note: Org innovation = Organisational innovation.


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