

## Conference Paper

# The Mediating Role of Individual Perception between Individual Orientation and Intention towards Sustainable Entrepreneurship

**Wei-Loon Koe, Shafinar Ismail, Mohd Halim Mahphoth, and Rizuwan Abu Karim**

Universiti Teknologi MARA, Cawangan Melaka, Malaysia

### Abstract

The negative effects of entrepreneurial activities on environment should not be disregarded. Sustainable entrepreneurship has been recognized as a strategy in rectifying environmental issues through entrepreneurial activities. However, developing sustainable entrepreneurs is still in its infancy stage in Malaysia. Most of the Malaysia's small and medium enterprises (SMEs) still regard it as a new practice and not many of them have actually embarked on it. As such, this study investigated the formation process of intention towards sustainable entrepreneurship through individual orientation and individual perception. This study surveyed 404 SMEs owner-managers in Malaysia through self-administered questionnaires. The results indicated that individual orientation positively and significantly related to intention towards sustainable entrepreneurship. Meanwhile, the results also showed a significant partially mediating role of individual perception between individual orientation and intention towards sustainable entrepreneurship. This study contributed to the literature by confirming that the formation process of intention towards sustainable entrepreneurship was successfully influenced by two important determinants, namely individual orientation and individual perception. Practically, it highlighted some crucial factors in promoting sustainable entrepreneurship among SMEs in Malaysia.

**Keywords:** Entrepreneurship, intention, orientation, small and medium enterprises (SMEs), sustainability

Corresponding Author:

Wei-Loon Koe  
 koeweiloon@yahoo.com

Received: 7 February 2020

Accepted: 9 March 2020

Published: 23 March 2020

Publishing services provided by  
**Knowledge E**

© Wei-Loon Koe et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICE-BEES 2019 Conference Committee.

## 1. Introduction

Entrepreneurship has long been regarded as “engines of economic growth”. Undoubtedly, entrepreneurship has contributed positively to a country's development. However, it has also caused many environmental issues due to market failure in business activities [1]. Over the years, researchers have urged that entrepreneurs should play a more active role in resolving environmental issues through sustainable entrepreneurship [2]. Thus, sustainable entrepreneurship could be deemed as a new way of doing business to leave

 **OPEN ACCESS**

a significant effect on economic, social and environmental development. However, many entrepreneurs still regard sustainable entrepreneurship as something new to them.

The newness of sustainable entrepreneurship has caused the low participation from entrepreneurs. In Malaysia, the number of small and medium enterprises (SMEs) involved in sustainable practices is still considered small. Research showed that there were about 15% of the SMEs has exercised sustainable practices in their operations [3]. Furthermore, SMEs' embarkation on sustainable management is still less embracing as compared to their larger counterparts [4]. Although Malaysian government supports and reacts positively to the 17 sustainable development goals (SDGs) established by United Nation Development Program (UNDP), the low participation in sustainable entrepreneurship could jeopardize the achievement of those 17 SDGs. Furthermore, the low motivation or interest from the entrepreneurs could also slow down the development of sustainable entrepreneurship and negatively impact the sustainability achievement of the country.

Therefore, developing a group of entrepreneurs who are prone to sustainable practices is crucial. As an initial step in encouraging entrepreneurs' embarkation on sustainable entrepreneurship, understanding of their intention to engage in sustainable entrepreneurship is important. This is because it could help to provide a clear picture on how entrepreneurs think, and what they need to balance up between the subjects of business and sustainability. However, in the extant literature, studies regarding the psychological aspect of sustainable entrepreneurship formation process are scarcely available. Question such as "what are the factors that influence individual's intention towards sustainable entrepreneurship" remains unanswered. As such, more studies should be conducted to understand the entrepreneurs' intention or motivation to engage in sustainable entrepreneurship. In order to address the problems identified above, the following research objectives were suggested to guide the study: (i) To determine the influence of individual orientation on intention towards sustainable entrepreneurship; and (ii) To examine the mediating effect of individual perception on the relationships between individual orientation and intention towards sustainable entrepreneurship.

## 2. Literature Review

### 2.1. Intention towards sustainable entrepreneurship

Sustainable entrepreneurship could be deemed as a sub-topic under the umbrella of entrepreneurship. Although there are many definitions can be found from the current

literature, many of those definitions are centred around the issues of preserving economics, environment, social and culture through entrepreneurial activities. However, as sustainable entrepreneurship is getting more complicated and challenging, ethical dimension should be emphasized as well. Thus, making it an entrepreneurial activity which emphasizes on preserving five aspects, namely economics, environment, social, culture and ethical [5]. This study adopted the definition suggested by Racelis [5] because it was more comprehensive and complex than the other definitions found in the literature.

Since sustainable entrepreneurship is a new field of study, there are many aspects that worth studying. The extant literature has focused too much on its functions, practices and outcomes. Specifically, psychological aspect which focuses on individual's intention towards sustainable entrepreneurship has long been overlooked. It is a fact that understanding of why some individuals act on sustainability and some do not is important [6]. Like traditional entrepreneur, one would not become a sustainable entrepreneur without any stimuli. The decision to become a sustainable entrepreneur is definitely a planned behaviour. As explained in the theory of planned behaviour (TPB), when someone has intention to do something, the person will end up doing it [7]. Thus, intention could be considered as a reliable and good predictor for someone to take-up sustainable entrepreneurship. Of course, intention is further influenced by several factors such as attitude, social norms and perceived behavioural control [7].

## **2.2. Factors influencing intention towards sustainable entrepreneurship**

### **2.2.1. Individual orientation**

In making an entrepreneurial decision, individuals are commonly influenced by informal institutional environment element such as culture [8]. In addition to entrepreneurial decision, culture was also an important impetus of moving people towards sustainable development of society [9]. Since sustainable entrepreneurship is a combination of entrepreneurial activities and sustainable development, the influence of culture on intention towards sustainable entrepreneurship should not be neglected.

Individual orientation is one of the aspects in culture. In the context of this study, individual orientation consisted of time orientation and sustainability orientation. Time orientation could be deemed as the ways individuals deal with time, known as short-term and long-term orientation [10]. Without doubt, it may take decades or centuries to

harvest the outcomes from sustainable entrepreneurship [11]. Developing economics, preserving environment and enhancing social are long-term efforts that require funds, time and patience. Therefore, a person's time orientation may cause him/her to react differently to sustainable entrepreneurship. Meanwhile, sustainability orientation refers to human-nature relationship orientation, which focuses on preservation or exploitation of natural resources [12]. Ecological orientation was found to affect the types of business start-ups established by new entrepreneurs [13]. In addition, previous studies have also confirmed the link between sustainability orientation and entrepreneurial intention [14-15].

### 2.2.2. Individual perception

Individual perception which affects a person's entrepreneurial intention could be divided into perceived desirability and perceived feasibility [16]. Perceived desirability refers to the degree to which an individual feels attractive for a behaviour. While perceived feasibility is the degree to which a person considers himself/herself has the ability to perform a behaviour [17]. Indeed, many studies found that these two perceptions would affect an individual's entrepreneurial intention [18-19]. Although individual perception has proven to positively affect entrepreneurial intention, many researchers have also showed that it has a mediating role in the formation process of behavioural intention [17, 20].

### 2.3. Research Model and Hypotheses

Past literatures have evidenced that individual orientation has a significant influence on behavioural intention. Moreover, individual perception could act as a mediator between individual orientation and behavioural intention. As such, the following research model and hypotheses were suggested:

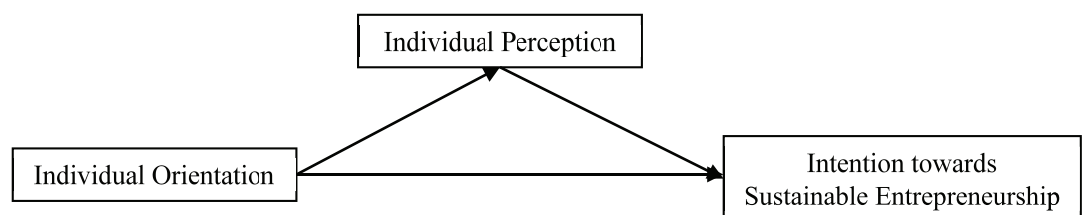


Figure 1: Research Model.

H1: Individual orientation significantly influences intention towards sustainable entrepreneurship.

H2: Individual perception mediates the relationship between individual orientation and intention towards sustainable entrepreneurship.

### 3. Research Methodology

This study employed a quantitative research method. This was because all the variables could be operationalized and were quantifiable. Specifically, questionnaire survey method was used. A self-administered questionnaire was developed based on the items adapted from previous established questionnaires [12, 14, 21-22]. It was done so to ensure the reliability and validity of items in questionnaire. All items were closed-ended items and used 10-point Likert-type rating scale, ranging from “1 – strongly disagree” to “10 – strongly agree”. The Cronbach’s alpha values obtained for all constructs were well above the threshold of 0.70; thus, the construct’s reliability prevailed. The validity was achieved because all items were grouped into their respective factors based on the results obtained from exploratory factor analysis.

The population of this study was SMEs registered in the database of SME Corporation Malaysia (SME Corp). SME Corp is a governmental agency which oversees the performance and development of SMEs in Malaysia. Thus, it maintains a reliable and updated database of SMEs in Malaysia. The sample was selected by using proportionate stratified sampling method according to the 13 states and two federal territories in Malaysia. The sample size was determined by referring to Krejcie and Morgan’s table [23]. A total of 404 SMEs from all economic sectors were selected as the sample. The SMEs owner-managers were the target respondents because they made major decisions in the business.

The data collected were keyed into computer and Statistical Package for Social Science (SPSS) was used for analyses. The first hypothesis (H1) was analysed by simple regression test. Meanwhile, the second hypothesis (H2) was tested by using Baron-Kenny approach [24] and Sobel’s test.

### 4. Findings and Discussions

#### 4.1. Respondent's profile

The descriptive analysis found that more than three quarter of the respondents were male (n=320; 79.21%). Most of them were from the servicing sector (n=255; 63.12%). Sole proprietorship (n=298; 73.76%) business was the main form of business registration.

About half of them (n=232; 57.43%) hired less than five full-time employees. In terms of the knowledge in sustainable practices, majority of the firms (n=361; 89.36%) knew about it.

### 4.2. Correlation, regression and mediation analysis

Pearson correlation analysis was performed prior to the regression analysis to ensure that all variables were associated to each other. Furthermore, it was also to ensure that multicollinearity did not exist. The results of Pearson correlation analysis were presented in Table 1. The correlation coefficients (r) between pairs of variables ranged from 0.483 to 0.706. The results also showed that the variables were significantly (sig. < 0.001) associated to each other. As all r-values were not extremely high; thus, multicollinearity was not an issue. Therefore, regression analysis could be performed.

TABLE 1: Pearson correlation analysis.

	ITSE	IO	IP
ITSE	1		
IO	0.483**	1	
IP	0.609**	0.706**	1

ITSE: Intention towards Sustainable Entrepreneurship;

IO: Individual Orientation; IP: Individual Perception

\*\* . Correlation is significant at the 0.01 level (2-tailed).

This study adopted Baron-Kenny approach to test the two hypotheses (H1 and H2) suggested. The approach was a four-step approach using regression analysis. The first step was to determine the influence of individual orientation on intention towards sustainable entrepreneurship, presented as “path c” in Fig 2. The results were summarized in Table 2. It was found that individual orientation had a positive and significant influence on intention towards sustainable entrepreneurship ( $\beta=0.483$ ; sig.<0.001). This indicated that the first assumption in Baron-Kenny test was fulfilled. In addition, H1 was also supported.

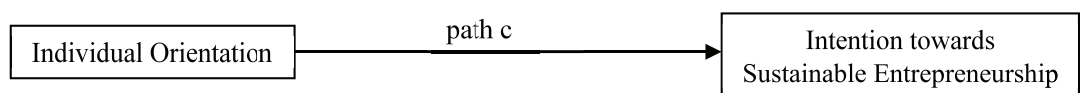


Figure 2: Path C.

The second step in Baron-Kenny approach was to determine the influence of individual orientation on individual perception, which is the “path a” in Fig. 3. The results of regression were showed in Table 3. Individual orientation positively and significantly

TABLE 2: Regression analysis I.

	Standardized Beta	t	Sig.
Individual Orientation	0.483	11.050	<0.001
F-statistics (sig.)	122.095 (<0.001)		
R <sup>2</sup>	0.233		

Dependent variable: Intention towards Sustainable Entrepreneurship

( $\beta=0.760$ ; sig. <0.001) affected individual perception. Again, it showed that the second assumption in Baron-Kenny test was met.

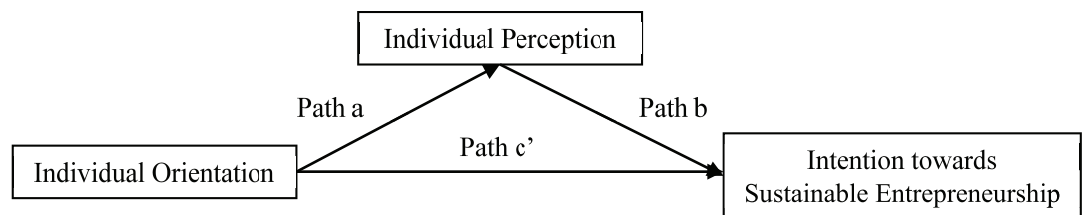


Figure 3: Path A, Path B and Path C:

TABLE 3: Regression analysis II.

	Standardized Beta	t	Sig.
Individual Orientation	0.760	23.414	<0.001
F-statistics (sig.)	548.206 (<0.001)		
R <sup>2</sup>	0.577		

Dependent variable: Individual Perception

The third step was to determine to what extent did individual orientation and individual perception influence the intention toward sustainable entrepreneurship. The relationship was illustrated as “path b” and “path c” in Fig 3. The regression results were summarized in Table 4. A positive and significant relationship ( $\beta=0.573$ ; sig. <0.001) was found between individual perception and intention towards sustainable entrepreneurship. It confirmed that the third assumption in Baron-Kenny approach was achieved.

The last step was to compare the standardized beta of path c to path c'. Both values of standardized beta were derived from Table 2 and Table 4. The comparison was shown in Fig. 4 and Table 5. The standardized beta shrunk from 0.483 to 0.047. Furthermore, the R<sup>2</sup> also increased from 0.233 to 0.372. As such, there was a partially mediating effect of individual perception between individual orientation and intention towards sustainable entrepreneurship.

TABLE 4: Regression analysis III.

	Standardized Beta	t	Sig.
Individual Orientation	0.047	0.780	0.436
Individual Perception	0.573	9.417	<0.001
F-statistics (sig.)	118.701 (<0.001)		
R <sup>2</sup>	0.372		

Dependent variable: Intention towards Sustainable Entrepreneurship

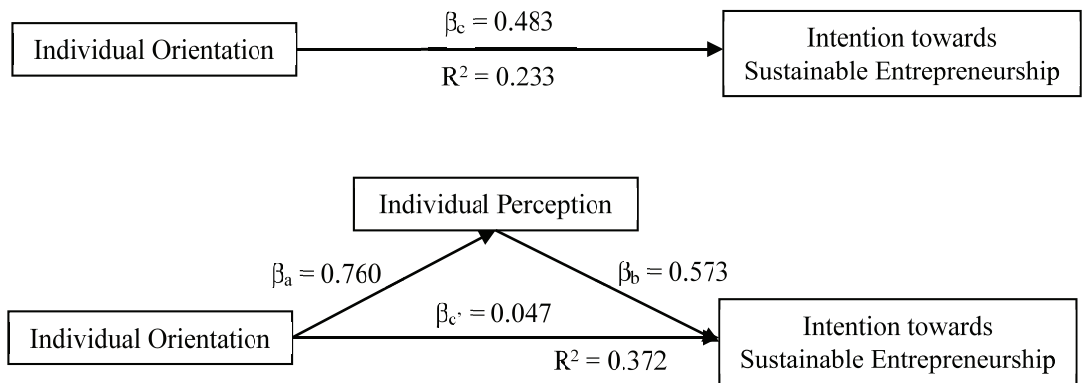


Figure 4: Comparisons of Path C and Path C'.

TABLE 5: Comparison of Standardized Beta of Path C and Path C'.

	Standardized Beta Path C	Standardized Beta Path C'	Results
Individual Orientation	0.483	0.047	Partially Mediation

Mediator: Individual Perception

Dependent variable: Intention towards Sustainable Entrepreneurship

Regression results denoted a partially mediating effect of individual perception between individual orientation and intention towards sustainable entrepreneurship. Sobel's test was performed to determine the indirect effect and whether such mediating effect was significance. The results were summarized in Table 6. The z-score (8.745) and sig. value (<0.001) confirmed that the indirect effect of individual perception between individual orientation and intention towards sustainable entrepreneurship was significant. The partially mediating effect identified from Baron-Kenny test and the significant indirect effect obtained from Sobel's test has caused H2 was partially supported.

TABLE 6: Results of Sobel's Test.

Relationship	a	s <sub>a</sub>	b	s <sub>b</sub>	z	Sig.
IC – IP – ITSE	0.796	0.034	0.773	0.082	8.745	<0.001



### 4.3. Discussion

Based on the analyses performed in the previous section, the first hypothesis (H1) was supported while the second hypothesis (H2) was partially supported. Individual orientation significantly influenced the intention towards sustainable entrepreneurship. The result supported previous studies [13-15]. As known, it may take a long time to harvest from sustainable entrepreneurship. Therefore, people who possess long-term orientation would have intention towards sustainable entrepreneurship. Those individuals normally have patience and do not emphasize on immediate returns. Furthermore, people who come from a culture which concerns about nature preservation are also prone to sustainable entrepreneurship. Those people understand about the importance of natural environment to human's wellbeing. Therefore, the significant relationship between individual orientation and intention towards sustainable entrepreneurship signifies that developing a culture which orients to long-term gains and nature preservation is vital in developing sustainable entrepreneurs.

Individual perception partially mediated the relationship between individual orientation and intention towards sustainable entrepreneurship. The findings obtained in this study conformed to the previous studies that perception had a mediating role in the formation process of behavioural intention [17, 20]. However, the partially mediation effect obtained in this study denoted that individual's perception accounted for some, but not all, of the relationship between individual orientation and intention towards sustainable entrepreneurship. In other words, individual perception could be treated as one of the intervening routes in the above relationship and was not the only one. This also meant there were other factors that could mediate the relationship. The result further explained that individual orientation influenced people's individual perception, and individual perception subsequently affected intention towards sustainable entrepreneurship. This sequential relationship showed that perception was a factor which should not be neglected in the formation process of intention towards sustainable entrepreneurship. Therefore, developing a favorable perception and competitive capability on sustainable entrepreneurship are equally important in bolstering sustainable entrepreneurship.

### 5. Conclusion

This study aimed to identify the relationship between individual orientation and intention towards sustainable entrepreneurship and the mediating effect of individual perception in that relationship. Based on the results obtained from the analyses, it could be

concluded that individual orientation significantly influenced the intention towards sustainable entrepreneurship. Furthermore, the relationship between individual orientation and intention towards sustainable entrepreneurship was significantly partial mediated by individual perception. The results suggested that a culture which stressed on long-term gains and nature preservation was crucial in promoting sustainable entrepreneurship. The individual orientation could help to develop a favourable perception and competitive capabilities on sustainable practices in business. In addition, building a positive perception and superior capabilities is equally important in the process of developing intention towards sustainable entrepreneurship.

## Acknowledgements

The authors would like to express their deepest gratitude to the management of Universiti Teknologi MARA (UiTM), Cawangan Melaka for providing the financial support and all their friends and colleagues who have offered their helping hands in various occasions.

## References

- [1] Cohen, B. and Winn, M.I. (2007). Market Imperfections, Opportunity and Sustainable Entrepreneurship. *Journal of Business Venturing*, vol. 22, no. 1, pp. 29-49.
- [2] Dean, T.J. and McMullen, J.S. (2007). Toward a Theory of Sustainable Entrepreneurship: Reducing Environmental Degradation through Entrepreneurial Action. *Journal of Business Venturing*, vol. 2, no. 1, pp. 50-76.
- [3] Koe, W.L. and Majid, I.A. (2013). Sustainable Entrepreneurship among Small and Medium Enterprises (SMEs) in Malaysia. *International Journal of Economics, Finance and Management*, vol. 2, no. 4, pp. 286-290.
- [4] Omar, R. and Samuel, R. (2012). Ecological Concerns and Environmental Orientation amongst Malaysian Manufacturing Firms, in *Proceedings of the 2012 International Conference on Innovation, Management and Technology Research (ICIMTR 2012)*. Melaka, Malaysia.
- [5] Racelis, A.D. (2014). Sustainable Entrepreneurship in Asia: A Proposed Theoretical Framework Based on Literature Review. *Journal of Management for Global Sustainability*, vol. 2.
- [6] Shepherd, D. A. and Patzelt, H. (2011). The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking “What is to be Sustained” With “What is

- to be Developed". *Entrepreneurship Theory and Practice*, Vol. January, pp. 137-163.
- [7] Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, vol. 50, pp. 179-211.
- [8] Schlaegel, C., He, X. and Engle, R.L. (2013). The Direct and Indirect Influences of National Culture on Entrepreneurial Intentions: A Fourteen Nation Study. *International Journal of Management*, vol. 30, no. 2, pp. 597-609.
- [9] Bhalachandran, G. (2011). Kautilya's Model of Sustainable Development. *Humanomics*, vol. 27, no. 1, pp. 41-52.
- [10] Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-related Values*. Beverly Hills, CA: Sage Publications.
- [11] Tainter, J.A. (2006). Social Complexity and Sustainability. *Ecological Complexity* 3, vol. 2006, pp. 91-103.
- [12] Trompenaars, F. and Hampden-Turner, C. (1998). *Riding the Waves of Culture: Understanding Cultural Diversity in Business* (2<sup>nd</sup> edition). New York, NY: McGraw Hill.
- [13] Schick, H., Marxen, S. and Freimann, J. (2005). Sustainability in the Start-up Process, in *Making Ecopreneurs: Developing Sustainable Entrepreneurship* (Schaper, M. editor), pp. 108-121. Hampshire: Ashgate Publishing.
- [14] Kuckertz, A. and Wagner, M. (2010). The Influence of Sustainability Orientation on Entrepreneurial Intentions: Investigating the Role of Business Experience. *Journal of Business Venturing*, vol. 25, no. 5, pp. 524-539.
- [15] Wagner, M. (2011). Effects of Innovativeness and Long-term Orientation on Entrepreneurial Intention: A Comparison of Business and Engineering Students. *International Journal of Entrepreneurship and Small Business*, vol. 12, no. 3, pp. 300-313.
- [16] Shapero, A. and Sokol, L. (1982). The Social Dimensions of Entrepreneurship, in *The Encyclopedia of Entrepreneurship* (Kent, C.A., Sexton, D.L. and Vesper, K.H. editors), pp 72-90. Englewood Cliffs, NJ: Prentice-Hall.
- [17] Liñán, F., Rodríguez-Cohard, J.C. and Rueda-Cantucho, J.M. (2005). Factors affecting Entrepreneurial Intention Levels, in *Proceedings of the 45th Congress of the European Regional Science Association*, Amsterdam, Netherlands.
- [18] Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000). Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, vol. 15, pp. 411-432.
- [19] Chuluunbaatar, E., Ottavia, Luh, D.B. and Kung, S.F. (2011). The Entrepreneurial Start-up Process: The Role of Social Capital and The Social Economic Condition. *Asian Academy of Management Journal*, vol. 16, no. 1, pp. 43-71.

- [20] Izquierdo, E. and Buelens, M. (2008). Competing Models of Entrepreneurial Intentions: The Influence of Entrepreneurial Self-efficacy and Attitudes, in *Proceedings of the International Conference on Internationalizing Entrepreneurship Education and Training*, Ohio, USA.
- [21] Yoo, B., Donthu, N. and Lenartowicz, T. (2011). Measuring Hofstede's Five Dimensions of Cultural Values at the Individual Level: Development and Validation of CVSCALE. *Journal of International Consumer Marketing*, vol. 23, pp. 193-210.
- [22] Liñán, F. and Chen, Y.W. (2009). Development and Cross-cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, vol. May, pp. 593-617.
- [23] Krejcie, R. V. and Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, vol. 30, pp. 607-610.
- [24] Baron, R.M. and Kenny, D.A., 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategies, and Statistical Considerations. *Journal of Personality and Social Psychology*, vol. 51, no. 6, pp. 1173-1182.