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ARE ENTREPRENEURS INNOVATIVE? AN EMPIRICAL STUDY

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Abstract

Innovation means application of invention. It is a skill, not a gift. It is essential for growth of any organization. In the present study, an attempt has been made to generate a profile of innovative entrepreneurs based on their personal and business characteristics. Twenty statements showing the innovative behaviour of entrepreneurs were framed for the present analysis. The innovative behaviour of manufacturing and service entrepreneurs has been analysed using the twenty statements. Data have been gathered from a sample of 150 entrepreneurs in Mumbai city. It has been found that 40 per cent of the entrepreneurs have been innovative. The results also indicate that educated, trained and young entrepreneurs engaged in service enterprises have been innovative. Previously experienced entrepreneurs who have long standing in manufacturing have been innovative. The study concludes with various policy implications of innovative behaviour of entrepreneurs.

Innovation is a process by which an idea or a concept is translated into a product or service. It is different from invention. Invention means finding new things scientifically. Innovation refers to the application of invention. It is a change with a positive moment, forethought, purpose and goal. It is a skill, not a gift. It is essential for the growth of the enterprise. Schumpeter points out that an entrepreneur has to revolutionise by exploiting new or untired techniques and processes. He lists out five important forms of innovation. They are i) finding a new product or service ii) exploring new market for the product or service iii) applying a new method of production, iv) finding a new source of supply of raw materials and v) establishing a new organizational set up. Thus, innovation is critical for organisational long-term survival, particularly in dynamic markets. In view of today's economic climate and increasing global competition, entrepreneur's ability to innovate is regarded as a key factor for success. The present study aims at examining whether entrepreneurs are innovative or not. It also aims at generating the profile of entrepreneurs based on their personal and business characteristics when the entrepreneurs are innovative.

Methodology

The present study is based on the primary data. The researcher has chosen 75 respondents from each category of entrepreneurs namely manufacturing entrepreneurs and service entrepreneurs. These 150 sample respondents have been chosen based on convenient sampling technique. The study has been carried out in Mumbai city. Direct

personal interview method has been exercised for collecting the primary data from the respondents. The researcher herself conducted the survey during the months of June to September 2016. Twenty statements relating to the innovative behaviour of entrepreneurs have been framed for the present analysis. The respondents were asked to rate these statements at Likert Type Five Point Scale according to their order of relevance, frequency and importance. The twenty statements showing the innovative behaviour have been taken for the Confirmatory Factor Analysis (C.F.A) to test their reliability and validity. The standardised factor loadings of the statements, their 't' statistics, composite reliability and average variance extracted have been computed to test the content validity and convergent validity. The independent 't' test has been exercised to test whether manufacturing entrepreneurs and service entrepreneurs differ significantly in showing their innovative behaviour. Partial correlation coefficients have been computed for analyzing the relationship between innovative behaviour and personal and business characteristics of entrepreneurs in Mumbai city.

Results and Discussion

The standardised factor loadings of the statements have ranged from 0.7184 to 0.9015. As the standardised factor loadings of the statements have been greater than 0.70, their content validity has been confirmed. The 't' statistics of the standardised factor loadings of the statements have been statistically significant. This reveals the convergent validity. These findings are supported by the composite reliability and average variance extracted as these have been greater than 0.80 and 60.00 per cent, respectively. The Cronbach Alpha has been 0.8932 showing that all the 20 statements indicating the innovative behaviour have explained 89.32 per cent of the variations. Thus, all the statements have been taken for assessing the innovative behaviour.

The mean score of each statement showing the innovative behaviour of the entrepreneurs engaged in manufacturing and service has been computed separately. The results are shown in Table 1.

Table 1 Mean Scores of the Statements Showing Innovative Behaviour of Manufacturing and Service Entrepreneurs

Sl. No.	Statements	Mean Score	
		Manufacturing Enterprises	Service Enterprises
1	I explore new ideas and concepts	1.54	1.67
2	I identify a new market for my product/service	1.99	2.19
3	I introduce the new product / service	2.95	4.46
4	I adopt old business concepts in new ways	1.32	1.18
5	I have found a new source of market for the raw materials and equipments	4.02	4.06
6	I follow the modern way of managing the enterprise	4.33	4.54

7	I have made use of my expertise to get the maximum at a minimum cost	2.92	2.98
8	I suggest new ways for accomplishing the task	2.05	1.73
9	I approach business risk in unique ways	1.87	2.54
10	I want to be creative and constructive	1.69	2.03
11	I change my business operating hours	1.02	0.95
12	I restructure the functions / departments in my organisation	3.06	4.05
13	I improve the quality of the existing product / service	4.61	4.78
14	I engage new suppliers / customers	4.32	4.55
15	I change the way of communicating with my employees	1.33	1.84
16	I use new raw materials	1.05	2.44
17	I change the appearance of the existing products / service	0.53	0.42
18	I change the packaging of the existing product / service	2.79	2.95
19	I follow a new way of advertising product/service	4.40	4.81
20	I learn the latest technology in my business and bring in new tools/ equipments for implementation	4.13	4.56

Source: Primary Data

The researcher has considered the statements with the mean score of more than four for further discussion. The inference is that both manufacturing and service entrepreneurs showed their innovative behaviour through i) learning the latest technology ii) finding a new source of market for the raw materials and equipments iii) following the modern way of managing the enterprise iv) improving the quality of the existing product for service v) finding new suppliers / customers and vi) adopting a new way of advertising. In addition, the service entrepreneurs have been innovative in restructuring the departments and introducing a new service. The scores on the variable Innovative behaviour have been computed by adding the scores of all the 20 statements showing innovative behaviour, obtained by each sample entrepreneur. The distribution of sample entrepreneurs based on the scores of Innovative behaviour is furnished in Table 2.

Table 2 Distribution of Sample Manufacturing and Service Entrepreneurs Based on their Scores on Innovative Behaviour

Sl. No.	Scores	Number of Sample Entrepreneurs		
		Manufacturing Enterprises	Service Enterprises	Total
1	10 – 20	2 (2.67)	0 (0.00)	2 (1.33)
2	20 – 30	8 (10.67)	4 (5.33)	12 (8.00)
3	30 – 40	21 (28.00)	2 (2.67)	23 (15.33)
4	40 – 50	22 (29.33)	31 (41.33)	53 (35.33)

5	50 - 60	9 (12.00)	18 (24.00)	27 (18.00)
6	60 - 70	7 (9.33)	14 (18.67)	21 (14.00)
7	70 - 80	5 (6.67)	3 (4.00)	8 (5.33)
8	80 - 90	1 (1.33)	2 (2.67)	3 (2.00)
9	90 - 100	0 (0.00)	1 (1.33)	1 (0.67)
	Total	**75 (100)**	**75 (100)**	**150 (100)**
Arithmetic mean score of innovative behaviour of manufacturing entrepreneurs = 44.87				
Arithmetic mean score of innovative behaviour of service entrepreneurs = 52.73				
't' Value = 2.1463**				

Source: Primary Data

** indicates five per cent level of significance

Table 3 shows that the score for the innovative behaviour has been more than 50 for 29 per cent of the manufacturing entrepreneurs and it has exceeded 50 for 51 per cent of the service entrepreneurs. The score for the innovative behaviour has been more than 50 for 40 per cent of the total sample entrepreneurs. The inference is that 40 per cent of the total sample entrepreneurs are innovative in the study area. The mean score of innovative behaviour for the manufacturing entrepreneurs has been 44.87 and that for the service entrepreneurs has been 52.73.

The 't' test has been exercised to test the significant difference between these two mean scores of innovative behaviour. The 't' value has been statistically significant at five per cent level. The implication is that both manufacturing and service entrepreneurs have differed significantly in showing their innovative behaviour required for entrepreneurial venture. The values of zero order partial correlation coefficients for analysing the relationship between innovative behaviour and personal and business characteristics namely Entrepreneur's age, education, training, previous experience, ancestry, duration of business and form of ownership are shown in Table 3.

Table 3 Estimated Values of Zero Order Partial Correlation between Innovative Behaviour and Characteristics of Entrepreneurs and their Business

Sl. No.	Characteristics	Correlation Coefficients		
		Manufacturing Enterprises	Service Enterprises	Pooled Data
1	Entrepreneur's age	0.0943 (1.6529)	-0.0759** (-1.9831)	0.0872 (1.8923)
2	Entrepreneur's education	0.1352 (1.6951)	0.1596** (2.1591)	0.1403* (2.0568)
3	Entrepreneur's training	0.1863 (1.7819)	0.2506* (2.6983)	0.2131** (2.1763)
4	Entrepreneur's previous experience	0.1738* (2.6874)	0.3142 (1.5310)	0.5614** (1.9906)

5	Entrepreneur's ancestry	0.1473 (0.7396)	0.0578 (0.5435)	0.0976 (0.6717)
6	Duration of business	0.2361** (2.0594)	0.1597 (1.5372)	0.2089 (1.8921)
7	Form of ownership	-0.0736 (-1.2753)	-0.0571 (-0.6962)	-0.0637 (-1.0215)

Source : Primary data

Figures in the parentheses are t- values

** indicates five per cent level of significance

* indicates one per cent level of significance

It could be inferred from Table 3 that education and training have been positively and significantly correlated with the innovative behaviour of service entrepreneurs. The inference is that educated and trained service entrepreneurs have been more innovative than other service entrepreneurs. The significant negative correlation coefficient between entrepreneurs age and innovative behaviour reveals that the young entrepreneurs owing service enterprises have been good in exhibiting innovative behaviour required for the entrepreneurial venture in the study area.

The same analysis has been done for studying relationship between personal and business characteristics and innovative behaviour of manufacturing entrepreneurs. The analysis shows that previous experience has been positively and significantly correlated with the innovative behaviour of manufacturing entrepreneurs. The meaning is that previously experienced entrepreneurs engaged in manufacturing have been exhibiting innovative behaviour effectively. The variable Duration of business has also been positively and significantly correlated with the innovative behaviour of manufacturing entrepreneurs. The inference is that entrepreneurs who have long standing in the business have been innovative in manufacturing in the study area.

Conclusion

The results of the present study have provided preliminary statistical evidence that 40 per cent of the entrepreneurs in Mumbai city have been innovative. This percentage of innovativeness among the service entrepreneurs has been significantly higher than that among the manufacturing entrepreneurs. Further, the results indicate that educated, trained and young entrepreneurs engaged in service enterprises have been innovative. Previously experienced entrepreneurs who have long standing in manufacturing have been innovative.

The findings of the study have several policy implications. Entrepreneurs may be trained to introduce new product / service to reap profit for further growth of their enterprises. They may also be guided to learn the use of new raw materials. Appropriate Entrepreneurial Development Programme (EDP) is also needed for both categories of entrepreneurs to make use their expertise to get the maximum at a minimum cost.

Moreover, aged entrepreneurs may be given guidance and training to avert their aversion towards innovation.

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