

Innovation is a need or a tool to survive the competition : A study on the perception of rural MSMEs towards the adoption of innovation

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Abstract

Business innovation is becoming an imperative feature of both growth and survival of MSMEs. This paper explores the importance of choice, need, or government intervention towards the adoption of innovation in rural MSMEs. It addresses the fundamental understanding-implementation vacuum of innovation. The study was accomplished through a survey of 453 rural MSMEs. The analysis was conducted through Principal Components Analysis (PCA) using SPSS and Structural Equation Modelling (SEM) using AMOS. The results showed that rural MSMEs depended heavily on government intervention for adopting innovation in uplifting their business. Following others is the standard norm in rural MSMEs. Innovation becomes the last choice when the urgency to revamp their business comes up. The research results present empirical inference for the government, academicians, research bodies and scholars, as they can be encouraged to find out the means to change the perception towards innovation by educating them and giving them all support.

Subject Classification: 92-XX, 90-00.

Keywords: MSME, Innovation, Technology, Business, Entrepreneurship.

1. Introduction

In the recent past, the significance of the practicality and value of the famous english proverb, 'Necessity is the mother of invention,' is being experienced by businesses all over the world. It means that in times of uncertainty, the need for surviving the storm becomes the prime focus for a firm and they are forced to get new inroads in continuing their business. Given the current market scenario, all existing firms to survive needs to find out or discover new ideas and convert and then utilize these ideas through innovation efficiently (Damanpour & Wischnevsky, 2006; Pérez-Luño, Wiklund & Cabrera, 2011). Globalization, uncertain economic and environmental changes, declining product lifecycle, fierce competition, varying consumer needs and an ever-changing technological landscape are a few of the challenges that are being faced in this sector (Utterback, 1994). Entrepreneurs are considered to be the thrust in the advancement of any

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country on its economic front and they play a crucial role in the acceptance of innovation in the country (Schumpeter, 1934; Litz & Kleysen, 2001; Hébert & Link, 2010). Innovation carried out in both technological and non-technological (Hyvärinen, 1990; Porter, 1998) front acts as the enabler for the establishments to lead their way and be competitive in international markets (Hyvärinen, 1990; Australian Manufacturing Council, 1995). The economic development by the side of the “local, regional and national” aspect is undoubtedly related to innovation and new business formation in any country (Dunning, 1993).

Firms having advanced innovative abilities are the ones who are ahead in the competition by bringing better innovative products in the market (Kim & Mauborgne, 2003). There are three types of innovative firms: One that is born as an innovative company, another is those who achieve innovation and the other one is those on whom innovation is forced (Michaelides, 2016). This paper studies the importance of choice, need or government intervention towards the adoption of innovation for business in rural MSMEs in India.

Small and Medium-sized Enterprises (SMEs) is considered as an imperative sector for the financial advancement of a nation all around the world (Boocock & Shariff, 2005; Holmes, Hunt & Stone, 2010; NITESCU, 2015). There is a significant contribution by SMEs in South Asia in the microeconomic front through their involvement in GDP, innovation and job creation (Wellalage & Locke, 2017). Entrepreneurship, creativity and innovation are fundamental elements in the multifaceted and multifactor process of growth (Baum, Locke & Smith, 2001). The development and survival of SMEs are mainly reliant on the continuous innovation tendency (Laforet, 2008; Coad, 2009). To stay alive in the competition and to flourish, SMEs need to strategize their approach and management skills towards the use of innovation (Bessant, Lamming, Noke & Phillips, 2005).

The innovation adoption in SMEs has been studied, focussing on the developed countries, but the study on developing countries is limited (Xie, Zeng, Peng & Tam, 2013; Arshad & Arshad, 2019), primarily rural SMEs of a developing country. Socio-economic, cultural and environmental intricacies along with formal and informal hindrances become unfavorable instances towards the competitiveness and innovativeness (Pissarides, Singer & Svejnar, 2003; Johnson, Kaufmann, McMillan & Woodruff, 2000; Anderson, Jack & McAuley, 2001; Woodward, 2001). SMEs in India compete with limited resources and depend on both the internal and external Research and Development (R&D) for their business (Rehman, 2016). Innovative firms can be in a better position to cater to the consumers

demand by producing more superior products or/and services (Singh & Smith, 2004).

The significance of innovation is quite evident in the tech-savvy world. But, still, the adoption of innovation is not up to the mark with the demand for adoption. Either the SMEs form their business with innovation as their pillar, or over time, they realize they need it and adopt it, or they are compelled to use innovation by the intervention of the government through their different schemes. To have a better understanding of the perception of MSMEs towards their acceptance of innovation for their business, it is necessary to know the real reason for the rural MSMEs in India in favour of innovation.

2. Theoretical background and literature overview

Innovation as a term is “derived from the Latin word ‘innovare,’ it means to make something new” (Tidd, Bessant & Pavitt, 2001). It can be expressed in other words as “the effective application of process and products new to the organization and designed to benefit it and its stakeholders” (Wong, Tjosvold & Liu, 2009). Innovation can be expressed as the “economic application of an invention through a financial transaction that involves the new device, process, product or service” (Bertoni & Tykvová, 2015). In other words, innovation can be expressed as the product of the encouragement of creativeness in generating new ideas for producing better products and services (Rua & França, 2017). The research on innovation management gives attention to “diverse degrees (incremental/radical), category (product/process) and foundation (generation/adoption)”. All these degrees, category and foundation has different previous circumstances (Ar & Baki, 2011) and each one produces exceptional results (Subramaniam & Youndt, 2005). By producing enhanced products, increasing the marketplace performance and improving the reputation of the firm, innovation acts as corporate tactics to give a competitive edge in the marketplace (Boachie-Mensah & Acquah, 2015).

SMEs constitute almost 90 percent of the total firms nearly in every country (Shrirame & Soni, 2015) , including the European Union (Çela & Gaspari, 2015), Pakistan (Arshad & Arshad, 2019) and 99 percent in Japan, Italy and France (Bayarçelik, Taşel & Apak, 2014). They are the most significant contributors to the economic advancement of any country (Eniola & Ektebang, 2014; NIȚESCU, 2015) through employment generation as well through their contributions to the country’s GDP (Katua, 2014) and poverty reduction (Valaei, Rezaei & Ismail, 2017; Mabhungu & Van Der Poll, 2017). In the employment generation front, SMEs make use

of around 75 percent amongst the entire working populace in any country (Olughor, 2015) and almost 67 percent in the European Union (Katua, 2014; Çela & Gaspari, 2015). The participation of SMEs in the country's Gross Domestic Product (GDP) is 57, 55 and 60 percent in Germany, Japan and China respectively (Katua, 2014) and in South Korea and Singapore, it is 55 and 49 percent respectively (Pulka, Ramli & Bakar, 2018).

Innovation should not be confined only to improving the technology but also through enhanced techniques and approaches in doing things. Changes should cover the products, processes, marketing approaches, distribution networks etc. (Porter, 1998). Several studies on Australian firms have found out that innovation is carried out in four categories which include product, process, business coordination and market (Australian Manufacturing Council, 1995; Weerawardena, 2003a; Weerawardena, 2003b). The initiative should be taken by the leader who can motivate and persuade their employees to embrace innovation and give results more superior than their current requirements (Shafique & Kalyar, 2018). Also, product-related innovation should not be the only choice by SMEs in their endeavour towards being innovative (Carson & Gilmore, 2000). The eagerness to innovate gives SMEs the chance to grasp any kind of unusual prospect (Wang C. L., 2008). Innovation should be carried out on both technological and non-technological fronts (Rothwell, 1992). Integrating innovation in the business will increase the competitiveness of SMEs (Asare, 2014). While thinking of innovation for the business, we should not be confused about the difference between innovation and replication (Schumpeter, 1934; Brozen, 1951; Dell'Era & Verganti, 2007) or investigation and utilization (March, 1991). Innovation can be termed successful only when the establishment is fully committed to its endeavour (Doyle, 2002).

The dependency on foreign products will be less when the MSMEs embrace digitalization for their business with the timely use of innovation and this will help the economy of the country (Ahmed & Sur, 2021). This transition requires financial and intellectual resources and due to the technical and financial incapability in MSMEs, they need government support and assistance (Link & Siegel, 2007). By managing both these issues, the involvement of the government will boost the use of innovative means in firms (Pachouri & Sharma, 2016). Also, the majority of the firms in India are weak in managing their finances and investments (Ahmed & Sur, 2017). Their assets should be appropriately channelized with the help of the schemes and the assistance of the government in adopting innovation. This way, the government plays numerous roles in promoting innovation through the use of technology (Stacy, 2007; Sharif, 2012; Gao, Yu & Lyytinen, 2014; Zhu, 2014).

The demand and the importance of technology adoption has intensified after the covid-19 stoppages and experiences (Shaikh, Kumar, Syed, Ali & Shaikh, 2021). There is a consensus among the MSMEs regarding the benefits of the usage of digitalization for their firms. In the present scenario, technologies are more user-friendly and this is helping them in their ease of understanding innovations (Ahmed & Sur, 2021). The rural areas, as compared with their urban counterparts, face several hurdles in the form of “lack of telecommunication, less education, lack of technical skills and other related issues.” These hindrances stop their progress in the utilization of any marketing-related activities using technology and they should overcome this with the help of government intervention (Yaja & Kumar, 2021).

The importance of technology was evident through the recent covid-19 pandemic, especially in the healthcare sector, as it helped in faster work as compared with human capabilities (Kumar, Syed & Pandey, 2021). The marketing activities of SMEs can be adequately enhanced with the adoption of technology. Usage of technologies in marketing can be hugely beneficial in all three fronts in the form of “cost, time and effort” factors and will help in better reach of the business to their potential customers (Kumar, Pujari & Gupta, 2021). Through the ‘Digital India’ initiative, more rural MSMEs can be added to the digital landscape of India. The concept of ‘Cashless Economy’ will also get a boost in rural MSMEs. To make these things happen, initiatives in the form of more benefit-centric schemes will prove handy for the government (Ahmed & Sur, 2021).

3. Conceptual model and hypotheses

The innovative product acts as a problem-solving (Atuahene-Gima, 1995; Song & Parry, 1997) mechanism for providing benefits to the organizations (Hsieh, Tsai & Wang, 2008). Product innovation performs a significant role in SMEs’ success (Terziovski, 2010). Innovation plays the role of intermediary between the available resources and the performance of the firm (De Zubielqui, Lindsay & O’CONNOR, 2014). Awareness and utilization of the available resources by the business act as a catalyst for their growth (Baumane-Vitolina & Cals, 2013). SMEs’ endurance and development are fuelled significantly by innovation (Kotey, 2014; Schilirò, 2015).

The proposed study revolves around understanding the perception of rural MSMEs in absorbing the benefits related to innovation and executing it as per their understanding. The adoption of innovation, as it is evident from the literature, revolves around three main aspects, it happens either through their own choice or occurs when the need arises or occurs

only when being supported by government schemes and incentives for innovation. The proposed conceptual model is shown in Figure 1.

I. Innovation for the business by own choice of rural MSMEs

As understood from the famous English proverb 'Necessity is the mother of invention', in uncertain times, the need for surviving the storm becomes the prime focus for a firm and they are forced to get new inroads in continuing their business. This can be termed as 'forced innovation.' This forced innovation is less controlled as compared with 'innovation by choice,' yet it helps the business in different activities (Michaelides, 2016). Innovation by choice provides the industry with the best chance to deal with any kind of unforeseen risks and opportunities and be ahead in the competition (Rao S. , 2007; Okpara, 2007; Kshetri, Palvia & Dai, 2011; Michaelides, 2016).

H1: Innovation by Choice has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

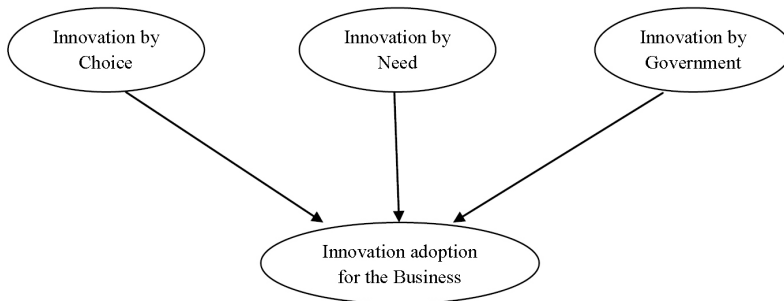
II. Innovation for the business as per the need for it

Given the current market scenario, all existing firms to survive needs to find out new ideas and to implement those in the form of innovative means (Pérez-Luño, Wiklund & Cabrera, The dual nature of innovative activity: How entrepreneurial orientation influences innovation generation and adoption, 2011). To stay alive in the competition and to flourish, SMEs need to strategize their approach and management skills towards the use of innovation (McAdam, McConvery & Armstrong, 2004). Innovation plays the role of intermediary between the available resources and the performance of the firm (De Zubielqui, Lindsay & O'CONNOR, 2014). The changing economic and marketplace dynamics and fast-changing consumer demands have made the need for innovation for the business a must in recent times (Siu, Lin, Fang & Liu, 2006; Thompson, 2001; Xia, 2012).

H2: Innovation by Need has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

III. Innovation for the business because of Government support or intervention.

The essential elements of innovation and entrepreneurial development revolve around continuous government support and a

**Figure 1****Conceptual Model (Author's own)**

conducive business atmosphere (Alberti, 2014; Yonekura & Lynskey, 2002). Adoption of innovation for the business requires investment in the form of both the fixed asset and intellectual assets and due to the technical and financial incapability in MSMEs, they need government support and assistance (Link & Siegel, 2007). By managing both these issues, the intervention of the government will boost the usage of innovations (Pachouri & Sharma, 2016). Government intervention in the form of support and several incentives related schemes will act as an encouragement for the business to adopt an innovation (Nurzal & Hastuti, 2009; Link & Siegel, 2007; Chang & Shih, 2004; Lin & Ho, 2010).

H3: Innovation by government intervention has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

4. Research methodology

An integrated method of research was conducted for the study for developing the proposed model and for its validation. Through a survey design, the study was carried out. The proposed research model was formulated on the basis of insights from an in-depth review of the literature and in-depth interviews with the rural MSME owners and experts related to rural business. Data/Responses were collected using multiple structured questions through a questionnaire having multi-choice response options based on a 5-point Likert scale. The survey for the proposed study was carried out using an interview schedule and an online survey was carried out with Google forms.

Data collection was done in four phases from 02nd February 2020 to 15th October 2020, covering the period before the ongoing pandemic

phase, 3rd & 4th phase of lockdowns, during Unlock I & II of Covid-19 pandemic related restrictions and after the easing of lockdowns. A total of 574 responses were collected, out of which 453 complete answers were considered for the analyses of the study and the rest 121 responses were either repetitive or incomplete and were left out. Data were analyzed using IBM SPSS 25.0 for performing Principal Component Analysis (PCA) and IBM AMOS 21.0 was used to execute Structural Equation Modelling (SEM).

4.1 Demographic Profile

Tables 1 (Gender), 2 (Age), 3 (Education), 4 (MSME Category) and 5 (Yearly Revenue) show the demographic profile of the respondents of the study. Out of the total respondents, 93.4 percent male owners, 36.0 percent in the age group of 41-50, 30.0 percent secondary pass-outs, 51.7 percent micro-enterprises and 45.5 percent in upto 15 lakhs revenue category constituted the highest in each demographic table.

Table 1
Gender (Author's own)

Gender		
	Responses	Percent
Male	423	93.4
Female	30	6.6
Total	453	100.0

Table 2
Age (Author's own)

Age (in years)		
	Responses	Percent
Up to 30	18	4.0
31-40	125	27.6
41-50	163	36.0
51-60	130	28.7
Above 60	17	3.8
Total	453	100.0

Table 3
Education (Author's own)

Education		
	Responses	Percent
Primary	107	23.6
Secondary	136	30.0
Higher Secondary	108	23.8
Graduate	61	13.5
Post Graduate	41	9.1
Total	453	100.0

Table 4
Yearly Revenue (Author's own)

Yearly Revenue (in lakhs)		
	Responses	Percent
Prefer not to say	194	42.8
Up to 15	206	45.5
16-30	47	10.4
31-45	6	1.3
Total	453	100.0

Table 5
MSME Category (Author's own)

MSME Category		
	Responses	Percent
Micro – Services	178	39.3
Small – Services	8	1.8
Micro – Manufacturing	234	51.7
Small – Manufacturing	33	7.3
Total	453	100.0

4.2 Sample Size

To refine the questionnaire, a pilot study with a sample of 50 rural MSME owners was carried out. These data from the pilot survey were not considered for the final analysis of our research. After analyzing the pilot survey data and after an expert opinion, the original 32 items were reduced to 20 items for our study. With the use of a-priori sample size calculator, the minimum sample size required in this study was shown as 175, keeping the anticipated effect size as 0.10, desired statistical power level as 0.95 and probability level as 0.05. The analysis of our study is done with 453 respondents, which are more than the minimum required size (Nitzl, 2016).

As recommended, multicollinearity was checked by checking the variance inflation factor (VIF) (Diamantopoulos & Winklhofer, 2001). The result shows that VIF for the predictors of our study is 1.986, 3.727 and 4.023. As recommended, the threshold for VIF should not exceed 5

(Kleinbaum, Kupper, Nizam & Rosenberg, 2013). There is no collinearity as the criterion are satisfied.

5. Data Analysis

The KMO - Kaiser-Meyer-Olkin value “is an index to calculate sampling sufficiency. It is used to justify the appropriateness of the factor analysis”. A value of 0.5 to 1.0 is considered appropriate for factor analysis (Hair, Black, Babin anderson & Tatham, 2006). The value of KMO of the present study is 0.945 and it establishes the appropriateness.

Table 6
KMO and Bartlett’s Test (Author’s own)

KMO and Bartlett’s Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.945
Bartlett’s Test of Sphericity	Approx. Chi-Square	6287.350
	Df	190
	Sig.	0.000

The constructs’ reliability was checked before proceeding further. The values of Cronbach’s α were generated and to establish the appropriateness for data analysis, the desired value is 0.7 or more (Hair, Black, Babin anderson & Tatham, 2006). The reliability of the various constructs of our study is established.

Table 7
Reliability Statistics (Author’s own)

Reliability Statistics		
	Cronbach’s Alpha	N of Items
Overall	0.947	20
Choice	0.909	5
Need	0.909	5
Government Intervention	0.859	5
Attitude to adopt Innovation	0.895	5

The total variance explained shows that 71.063 percent of the total sample variance is defined by the model. A value of 60 percent is

recommended for the study (Malhotra, 2010). The four components were formed with an eigenvalue of 1 or more.

Table 8
Total Variance Explained (Author's own)

Component	Total Variance Explained								
	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.026	50.132	50.132	10.026	50.132	50.132	3.870	19.348	19.348
2	1.881	9.405	59.537	1.881	9.405	59.537	3.766	18.829	38.177
3	1.225	6.126	65.663	1.225	6.126	65.663	3.355	16.777	54.954
4	1.080	5.400	71.063	1.080	5.400	71.063	3.222	16.109	71.063

The scree plot of the analysis also shows the components as 4 to be considered for the study with an eigenvalue of 1 or more.

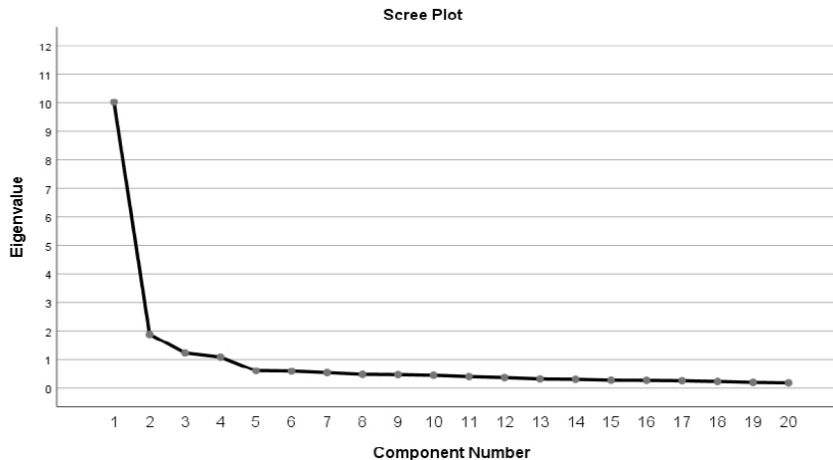


Figure 2
Scree Plot (Author's own)

PCA was conducted for factor analysis using 'varimax' as the rotation method. The factor loading value of more than 0.5 is to be considered for data analysis (Hair, Black, Babin anderson & Tatham, 2006). All constructs satisfied the criteria of scores of more than 0.5.

Table 9
Rotated Component Matrix (Author's own)

Rotated Component Matrix				
	Component			
	1	2	3	4
Choice1	0.825			
Choice5	0.813			
Choice3	0.810			
Choice2	0.797			
Choice4	0.696			
Need2		0.781		
Need4		0.778		
Need3		0.748		
Need1		0.743		
Need5		0.729		
Atti1			0.793	
Atti5			0.778	
Atti2			0.777	
Atti4			0.585	
Atti3			0.544	
Govt_Sup1				0.798
Govt_Sup2				0.779
Govt_Sup4				0.634
Govt_Sup3				0.631
Govt_Sup5				0.608

The measurement reliability and validity of our proposed measurement model were measured using confirmatory factor analysis (CFA). With the help of AMOS 21.0, SEM was performed using maximum-likelihood estimation. As recommended, for our SEM analysis, a two-step approach was applied. The first step involves reliability testing and validation of the measured scale using CFA and the second stage involves analysis of SEM for the structural model (Anderson & Gerbing, 1988). The generated result from CFA are statistically significant for the study with χ^2 ($\chi^2 = 349.079$, $df = 160$, $\chi^2/df = 2.182$). The model fitness was calculated and it is found to be on par with the recommended level.

Table 10
Model Fitness (Author's own)

Desired level and suggested values	Results
Chi-square/df (CMIN/df) ≤ 3	2.182
p-value ≤ 0.05	0.01
Normed-fit-index NFI ≥ 0.90	0.945
Goodness-of-fit index (GFI) ≥ 0.90	0.924
Adjusted Goodness-of-fit index (AGFI) ≥ 0.90	0.901
Tucker-Lewis coefficient (TLI) ≥ 0.95	0.964
Comparative fit index (CFI) ≥ 0.95	0.970
Root mean square error of approximation (RMSEA) ≤ 0.08	0.051

The reliability of the latent variables can be checked by calculating Composite Reliability (CR). The suggested value of the composite reliability coefficient should be above 0.60 (Hair, Black, Babin anderson & Tatham, 2006).

Table 11
Reliability Analysis (Author's own)

Constructs of the study	AVE	The Square root of AVE	CR
Choice	0.65	0.80	0.901
Need	0.64	0.80	0.899
Government Intervention	0.55	0.74	0.860
Attitude to adopt innovation	0.64	0.80	0.897

To confirm the overall variance in the projected indicators, Average Variance Extracted (AVE) is calculated. The value of the AVE should be above 0.50 as per the recommendation (Hair, Black, Babin anderson & Tatham, 2006). When the deals of the "square root of AVE is found to be more than the correlation of the latent variables," the Discriminant Validity (DV) is established (Hair, Black, Babin anderson & Tatham, 2006). Both CR and DV are shown for the proposed model. It is as per the recommended value.

Table 12
Discriminant Validity Analysis (Author's own)

Correlations: (Group number 1 - Default model)			
			Estimate
By_Choice	<-->	Govt_Intv	0.591
By_Choice	<-->	By_Need	0.625
By_Need	<-->	Govt_Intv	0.776

6. Results

H1, H2 and H3 are the hypotheses of the proposed model.

H1: Innovation by Choice has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

H2: Innovation by Need has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

H3: Innovation by government intervention has a significant effect on the perception and innovation adoption by the rural MSMEs for their business.

The acceptance or rejection of the hypotheses of the study is established when the standardized regression weight of the constructs of the study is analyzed alongside the t-value with a significance level recommended as less than 0.05.

Table 13
Hypotheses Testing (Author's own)

			Standardized Regression Weights	Critical Ratio Value (t-value)	Significance (P)	Accepted/ Rejected (Hypotheses)
Innovation Adoption	<---	By_Choice	0.323	6.405	0.001	Accepted
Innovation Adoption	<---	By_Need	0.238	3.436	0.001	Accepted
Innovation Adoption	<---	Govt_Intv	0.375	5.435	0.001	Accepted

When the t-value, or in other words, the value of the critical ratio, is greater than 2, then the hypothesis is accepted (Byrne, 2013). The t-values of all the three constructs are more than 2, so all three ideas can be accepted. The significance level or the p-value is also less than 0.05 and it also validates all three hypotheses.

As per the generated standardized regression weights, H3, i.e., innovation by government intervention significant and its significance are more positively on the perception and innovation adoption by rural MSMEs. It validates the critical base of the study and the chief pillar of this proposed study. The magnitude of government intervention towards the adoption of innovation for the business is validated from the analysis of the survey. It is at par with the different studies discussed above. These studies have shown that the Government intervention in the form of support and several incentives related schemes will act as an encouragement for the business to adopt an innovation (Chang & Shih, 2004; Link & Siegel, 2007; Nurzal & Hastuti, 2009; Lin & Ho, 2010).

The 2nd most crucial hypothesis that came up with this analysis of this study is H1, i.e., innovation by choice has a significant effect on the acceptance of innovation. The ensuing market competition and different socio-economic changes followed by the competition from the international firm have entirely changed the demands of customers. Innovation should be adopted by the businesses as their own choice as previous studies have pointed out that innovation by choice provides the company with the best chance to deal with any kind of unforeseen risks and opportunities and be ahead in the competition (Rao S. , 2007; Okpara, 2007; Michaelides, 2016). The analysis of this study validates this hypothesis, too, with a value of regression score as 0.323 and a critical ratio value of 6.405.

The third hypothesis of this study is H2, i.e., innovation by need has a significant effect on the perception of innovation adoption by the rural MSMEs for their business. With a value regression score of 0.238 and a critical ratio value of 3.436, the third hypothesis is also established through the analysis of this study. It is evident through the previous studies that to stay alive in the competition and to flourish, SMEs need to strategize their approach and management skills towards the use of innovation (McAdam, McConvery & Armstrong, 2004; Bessant, Lamming, Noke & Phillips, 2005). The changing economic and marketplace dynamics and fast-changing consumer demands have made the need for innovation for the business a must in recent times (Siu, Lin, Fang & Liu, 2006; Thompson, 2001; Xia, 2012). So, the need for innovation is established here and through this proposed study, the importance of innovation should also be

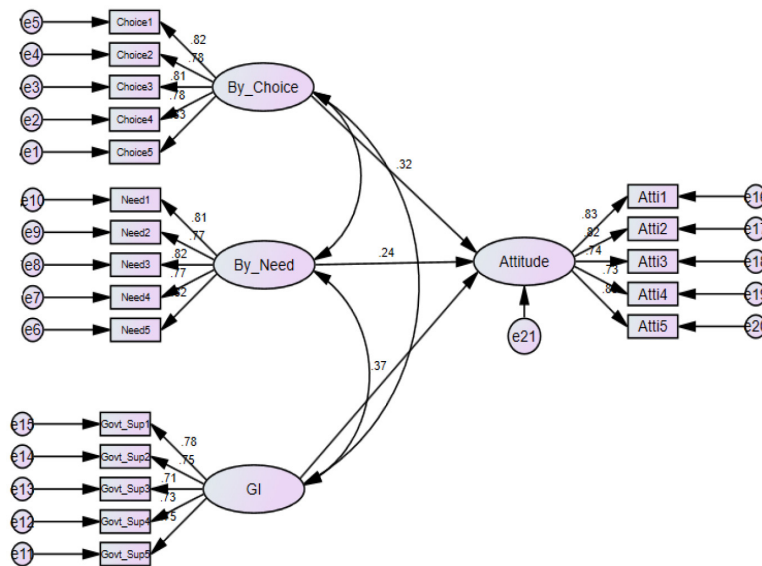


Figure 3
Path Analysis (Author's own)

taken seriously not only by the government but also by all the businesses operating in our country.

7. Implications

7.1 Theoretical Implications

It is evident through past research that the studies on the adoption of innovation by the SMEs of mainly developing countries are limited (Arshad & Arshad, 2019). The MSME sector in India, mainly rural MSMEs, face different problems related to the socio-economic, cultural and environmental aspects. This deters the competitiveness and innovativeness of SMEs along with several other formal and informal hurdles (Anderson, Jack & McAuley, 2001; Woodward, 2001). This study presents a unique viewpoint of the adoption of innovation for business through three different lenses – Innovation by Choice, Need and Government Interventions. Almost every decision regarding the adoption of innovation is either focussed on the need of the owner/businesses (Siu, Lin, Fang & Liu, 2006; Thompson, 2001; Xia, 2012) or the direct choice of the owners/businesses (Rao S. , 2007; Okpara, 2007; Michaelides, 2016) or the interest towards

it increases after any form of government interventions (Iyer, LaPlaca & Sharma, 2006; Nurzal & Hastuti, 2009; Link & Siegel, 2007; Chang & Shih, 2004; Lin & Ho, 2010). It is evident through the proposed study that all the three factors discussed here with the help of the proposed model are very much relevant concerning the adoption of innovations by MSMEs. The results from the proposed study show that Government interventions play the most crucial role followed by their choice for innovation and then their need for it. It is obvious through the examination that, development through innovation/digitalization as a decision isn't the essential choice for the MSMEs in rural India. Their choice is driven by the requirement for it or by the intervention or support for the government (Ahmed, Sur & Kushwah, 2021).

7.2 Managerial Implications

The proposed study should be taken into account to explore all possible government support and assistance and this information should be provided to the MSMEs in every corner of society. Given the current market scenario, the importance of innovation in a business is quite evident. The importance of innovation and the success or failure stories of different ventures adopting or not adopting innovation should also be used as a campaign to increase its adoption in India. SMEs in India compete with limited resources and depend on both the internal and external Research and Development (R&D) for their business (Rehman, 2016). The importance of this change should be discussed appropriately amongst the different stakeholders of this sector. To survive and prosper, the business should understand that SMEs possessing the vision to be innovative, the potential to adapt themselves to the evolving financial conditions and the assets to incorporate swiftly into the varying networked world are the most sought after by the modern economies as they can develop them into responsive and vibrant units (Castells, 2011; Huang & Tsai, 2011).

8. Discussion

The importance of innovation adoption in the current context is too much vital for the business to grow and survive in any kind of economic and natural changes. With the growth and reach of eCommerce in every part of the country and with the increase in its sales, MSMEs have to be at par with the current demand to survive this wind of change. Several works of literature provide the knowledge that MSMEs understand the

need to embrace innovation for their business. This is also established through the analysis of the study. Rural MSMEs have different dynamics in operating their business, especially micro-enterprises. They have a small establishment to conduct their business, a small marketplace to sell its product or services, limited financial, technical and intellectual resources and not so easy source of external finance to deal with their business. The smallest among them are dormant to any kind of changes that requires their fund. The medium among them is ready to innovate but is divided between their choice, their need and the risk concerned with investment and return. The larger enterprises among them are already embracing innovation or are on the verge of adopting innovation given the recent economic reforms and Covid-19 related turmoil in their business. In the entire three scenarios, they are pretty reluctant to get support and assistance from the government in the form of different schemes related to financial and technological aid.

9. Limitation and further research

The biggest problem faced during the data collection was getting information from the rural MSME owners. Getting online responses was far more accessible than getting reactions from the field. To get a more accurate view of the understanding of MSMEs for innovation, research should be conducted state-wise and cluster-wise. This study should be used as a base to understand the perception in other developing countries and the comparison should be made to find out the natural way to get innovation to create the firms and the nation.

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