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Development of Scale to Measure Agripreneurs Attitude towards Entrepreneurial Climate

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ABSTRACT

Attitude plays a crucial role in influencing one's behaviour with respect to a particular psychological object. To measure the attitude of farmers towards entrepreneurial climate for agrienterprise development, need was realized to devise a scale and a Likert's Summated Rating scale was constructed by following the standard methodology suggested. Attitude towards entrepreneurial climate was categorized in six specific dimensions *viz.* Institutional factors, psychological factors, cognitive factors, managerial factors, sociological factors and economic factors. A total of 141 items were constructed and was sent to 124 experts through email, Google docs form and handed over personally by visiting to the experts. Based on the 43 experts' responses 72 items were screened out for item analysis. The scale was administered to 80 agripreneurs of Uttar Pradesh. The odd-even method was followed for testing reliability of the scale and reliability co-efficient was 0.66. The validity of the scale was examined with the help of face and content validity. The scale developed finally consisted of 44 items (36 positive and 8 negative).

INTRODUCTION

Due to the lack of accessibility and availability of food anywhere/anytime across the globe, there is a need of focusing on the promotion of secondary agriculture. Secondary agriculture is the biggest private enterprise where majority of rural people can engaged in agripreneurial activity having certain degree of experiences and affiliations. In the recent time, the government is emphasizing on promotion and establishment of agrienterprise in agricultural sectors to increase the income of farmers. Also, the processing industry for value addition is the need of the hour to expand the market globally for the purpose of enhancing accessibility and availability of food everywhere. But it requires shaping of attitude of potential agripreneurs to shape new enterprises. Agripreneurs attitude can be operationally defined as the attitude that entails different processes undertaken by him in the creation of new firms and is result of the continuous interaction of personal factors and entrepreneurial climate (Bird, 1992). One notable manifestation of agripreneurs attitude is agripreneurship and the agripreneurs do not act in a vacuum, but react to entrepreneurial climate surrounding them (Peters & Waterman, 1982). Entrepreneurial climate consists of the factors which are critical in developing agripreneurship in certain regions (Gyanwali & Fogel, 1994). Thus, entrepreneurial climate liable in promoting agriculture development conceptualized to be comprised of various factors like institutional, sociological, economic, psychological, cultural, cognitive and managerial aspects within the boundaries of the agrienterprise and is of direct interest to an individual decision-making behaviour in the system. However, due to the complication of the attitude phenomenon, the researchers, as well as the psychologists, often find it intricacy to clearly define and measure the attitude construct (Allport, 1954; Dillard, 1993). A lot of attitude-based research avoids long-term development techniques. In many cases, researchers modify an existing standardized scale for their current research (Meena & Singh, 2013; Nikam et al., 2014) or collect a pool of statements from the literature review and

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administer them to the respondents in Likert form for their level of agreement (Siebert et al., 2010; Badola et al., 2012; Ward et al., 2016; Singh et al., 2021; Kumar et al., 2021).). While the researches on farmers' attitudes towards entrepreneurial climate for agrienterprise development the scale's reliability and validity in modified versions is a drawback of such research methodologies. The majority of previous research in this area has lacked accurate data on agripreneurs attitudes regarding how entrepreneurial climate (EC) have effect on agripreneurial activity, necessitating the need to bridge the research gap by constructing a standardized tool to investigate agripreneurs attitudes toward entrepreneurial climate. Based on the definitions of attitude by Thurstone and Chave's (1946), literature review and expert consultation, the dimension of the attitude scale was derived from multiple components of entrepreneurial climate.

METHODOLOGY

The standardised attitude scale was taken up by using a step-by-step approach of Likert's summated rating scale method (Likert, 1932). A pool of statements was gathered during the item collection process from the literature, interaction with agricultural scientists, extension professionals, agripreneurs, and personal experience, a total of 202 items were gathered. Perspectives observed for the collecting of statements from the six EC dimensions namely Institutional factors, Psychological factors, Cognitive factors, Managerial factors, Sociological factors, and Economical factors. The 141 items were obtained after screening using the 14 criteria for attitude scale construction proposed by Edwards (1969); Thurston & Chave (1929); Edward & Kilpatrick (1948).

The relevancy test was conducted in which the selected items were sent to specialists in the field of EC for their professional opinion on the statement's relevancy (Kumar et al., 2021). The 141 items were delivered to 124 judges for testing the relevancy and difficulty on a five-point scale. On the expert opinion of 43 judges who responded completely 72 items were judged as relevant with the t-value estimation. The items with t value greater than or equal to 1.75 were selected.

According to Anastasi (1968), the consistency is the scores produced by the same persons when tested on multiple occasions. The odd-even method of reliability testing was used. For testing the reliability, 30 experts were asked to rate their level of agreement on a five-point scale. The items were coded on an excel sheet, separated into two equal halves (odd-even), and then exported into SPSS for scale reliability analysis.

The accuracy with which a test measures what it is designed to measure is defined by Lindquist (1951). Content validity test approach was used. This was accomplished by giving the established dependable attitude scale to 30 judges in the field of agricultural extension for feedback and suggestions. Content validity, according to Anastasi (1968), entails a systematic analysis of the test content to see if it covers a representative sample of the behaviour area to be assessed.

RESULTS AND DISCUSSION

Selection of relevant items was done after relevancy testing, the statement providing result >60, relevancy weightage >0.60 and mean relevancy score > 2.5 were considered for final selection. Also repetition and duplication type statements opined by judges were relooked. By this process out of total 141 statements, 69 items were discarded and finally 72 items remained for further item analysis which is depicted in Table 1.

Table 1. Mean Relevancy Score (MRS), Relevancy Weightage (RW), Relevancy Percentage (RP) and estimation of t-value of the selected items

		MRS	RW	RP	t-value
Institutional factors					
A.	Governmental factors				
1.	Provision of information about agro-processing is not adequate for me	2.59	62.53	0.65	2.25
2.	Resources and facilities at subsidized rate for agrienterprise are not adequate for me.	2.63	63.76	0.66	2.61
3.	Institutions provide help to me in expansion of agrienterprise	2.51	75.90	0.78	2.20
B.	Administrative policy related factors				
4.	Telecom services provided by govt. are not adequate for me	2.21	59.23	0.56	3.71
5	Incentives from government are adequate for me	2.91	78.37	0.73	0.10*
6.	I think government policies are supporting regional agrienterprises	3.05	80.98	0.77	0.61*
C.	Transport				
7	Facilities of road transportation are not adequate for me	2.94	76.93	0.74	1.12*
8.	Availability of scientific packaging/packing facility is not adequate in my area	2.68	70.23	0.67	0.50*
9.	"Kuccha" road damages the product during transportation	3.49	81.53	0.88	0.13*
D.	Infrastructure				
10.	Interrupted power supply reduces efficiency of my processing unit	3.52	81.97	0.88	1.77
11.	Availability of innovative storage facility for agro processed product helped me to enhance profit	3.35	76.41	0.84	0.31*
E.	Regulatory legal/Bureaucratic factor				
12.	Excess bureaucratic procedure while registration of agrienterprises disturbed me	3.35	79.70	0.84	2.30
13.	My agrienterprise follow safety standard ensured by regulating authority	3.19	81.12	0.80	1.23*
14.	GST and its payment is not easy for me	3.12	62.10	0.78	2.21
15.	The length of time involves in the legal procedure demotivates me to go for agrienterprise	3.13	52.07	0.40	2.30
Psychological factors					
A.	Psycho-behaviour Factors				
16.	Stress bearing ability helped me in handling the day to day problem related to agrienterprise	3.56	90.68	0.89	0.12*
17.	Agrienterprise functioning in the planned direction brought satisfaction to me	3.26	74.87	0.82	1.30

Table 1 contd...

		MRS	RW	RP	t-value
B.	Intention for entrepreneurship				
18.	I intent to develop agribusiness for specialized commodity based on local needs	3.49	90.06	0.88	0.14*
19.	Enthusiasm to have monopoly for an agroproduct helps me to get higher income.	1.82	51.74	0.46	1.83
20.	Intension to for increased in my networking agrienterprise helped me for expansion of geographical spheres	3.14	74.02	0.79	3.10
C.	Strategic orientation				
21.	Long term strategies can help me for sustainability of my enterprise	3.59	72.89	0.90	1.90
22.	I feel there is always chance for improvement in performance of agripreneurs	3.31	76.54	0.83	1.77
D.	Perception of desirability				
23.	I prefer to be an agripreneurs rather than in any other profession	3.10	67.21	0.78	2.89
24.	Villagers perceive that being agripreneurs, I will take advantage of customer	2.77	62.90	0.70	0.24*
E.	Perception of viability				
25.	Worker ideas in the agrienterprise helped me for survival of my agrienterprise	2.96	67.66	0.74	1.79
26.	Policy related to tax waiving for agrienterprise help me in survival of agrienterprise	3.12	78.07	0.78	2.08
F.	Entrepreneurial orientation				
27.	I take calculated risk for agrienterprise to get expected outcome	3.21	77.23	0.81	3.09
28.	I have ability to turn problem & barriers into opportunities	3.42	81.77	0.86	2.21
29.	I adopt novel technology for enhancing efficiency of my agrienterprise	3.40	79.55	0.85	1.94
Cognitive factors					
A.	Level of knowledge				
30.	I figure out the local need of the agroproduct based on society demand	3.45	89.06	0.87	2.22
31.	I used my entrepreneurial knowledge for establishment of agrienterprise instead of becoming a manager	3.26	78.98	0.82	2.30
B.	Human Resource Development				
32.	I am dependent on consultant for feasibility analysis for establishment of agrienterprise	2.91	76.43	0.73	0.50*
33.	I recruit worker with task matching qualification for the development of my agrienterprise	3.45	66.90	0.87	2.30
34.	I utilize my worker for efficiency not for drudgery	3.10	69.68	0.78	2.61
C.	Educational Factors				
35.	I used to attend workshop/conference/seminars organised on agripreneurship which help to be on the current scenario of agrienterprise development	3.52	81.11	0.88	1.90
36.	I feel affiliated research laboratories in educational institutions give opportunities to student to convert their theoretical idea into physical product	3.12	71.93	0.78	0.10*
3.	Socio-logical factors				
A.	Social factors				
37.	I used to get social recognition and influences due to my agrienterprise	3.10	69.11	0.78	2.19
38.	Starting an agrienterprise bring prestige/social status for me in society	3.26	84.55	0.82	0.66*
39.	Being agripreneurs, I am preferred to be involved in decision making process in the society	3.35	77.11	0.84	2.21
B.	Political factors				
40.	I am being preferred for participation in the process of policy formulation for agrienterprise development	2.89	81.6	0.73	0.63*
41.	I feel few person holding position and power can raise voice of agripreneurs for policy making	2.91	69.89	0.73	1.67*
C.	Family, relative and friends				
42.	I am continuing with the agrienterprise set by ancestor which required less effort for further development	2.87	74.44	0.72	1.77
43.	My family values agripreneurial activity rather than any other activities	3.14	80.30	0.79	0*
44.	For me family and friends opinion in relation to agrienterprise development is important	2.96	79.75	0.74	2.10
D.	Religious Factors				
45.	I use to develop innovative agroproduct as per the religious festival needs	2.84	67.43	0.71	2.87
E.	Cultural				
46.	My culture emphasizes to attain self-sufficiency in agrienterprise	3.31	78.81	0.83	1.60*
47.	My learning from cultural differences helped to establish agrienterprises	2.96	75.83	0.74	2.18
F.	Social acceptance				
48.	My tolerance level for notorious people is the hallmark for growth and development of my enterprise	2.84	68.43	0.71	0.74*
49.	I can nurture the associated “social capital” to become potential entrepreneur	3.21	79.23	0.81	2.70
Economical factors					
A.	Marketability factors				
50.	I implement different marketing strategies for successful penetration in the market	3.63	85.89	0.91	3.35
51.	I use to maintain quality of agroproduct for good price of the products	3.59	83.49	0.90	0.35*
52.	I access the marketing information for selling product to cover large area	3.40	79.01	0.85	1.53*
53.	I add value in agroproduct to utilize better opportunity in the market	3.49	89.93	0.88	2.26
54.	Timely supply of product to market ensure my credibility and profit	3.33	87.61	0.84	2.78
55.	Innovative ideas in agrienterprise help me for popularity of agroproduct	3.31	76.81	0.83	0.75*

Table 1 contd...

		MRS	RW	RP	t-value
B.	Financial Factors				
56.	Timely availability of credits to me save the agrienterprise from shutting down	3.45	0.87	79.30	2.96
57.	I prefer to choose the input where subsidy is available to save money	3.31	0.83	84.54	3.58
58.	I avail insurance for the agrienterprise to lower down the risk	3.35	0.84	90.10	3.2
59.	I assess investment capacity before investing in the agrienterprise	3.35	0.84	75.09	1.31*
60.	Non-institutional resources are not helpful to me for investment in my agrienterprise	2.66	0.67	69.91	1.45*
61.	I feel institutional resources need more paper work for sanctioning the credit	3.14	0.79	80.84	1.46*
C.	Socio-economic Factors				
62.	The profit making through my agrienterprise help me to fulfill the socio-economic need of my family	3.19	0.80	71.12	1.35*
D.	Ease of Doing business				
63.	Getting license for an agrienterprise is a difficult task for me	3.17	0.80	91.98	2.11
64.	I have skill for convincing others on various issues which helped me in solving conflict within agrienterprise	3.24	0.81	73.14	0.52*
65.	Trading across borders is not easy for me, its required numbers of paper work	3.05	0.77	81.28	2.34
66.	Enforcing contracts is not easy for me as an agripreneurs	2.98	0.75	67.86	1.13*
Managerial factors					
A.	Agripreneurs basic managerial skills				
67.	I feel autocratic situation in agrienterprise is beneficial	2.63	71.29	0.66	0.99*
68.	I do not like unethical practices to get the work done from workers	2.96	79.72	0.74	1.81
69.	I feel it is not necessary to be scientific and rational in labor-management for an agrienterprise	2.91	65.44	0.73	1.82
B.	Business network				
70.	Quality product built up strong global business network for me	3.45	73.65	0.87	3.38
71.	Good relation with the international agripreneurs helped me in enhancement business networking	3.40	72.21	0.85	3.28
C.	Competitiveness				
72.	My strong organizing skill boost up the competitiveness level for agripreneurship	3.45	81.76	0.87	2.91

Table 1 depicts that selection of item for final scale was done after calculating the t value for all items, the items with t-values equal to or greater than 1.75 were finally selected and included in the attitude scale. It was observed that 44 statements were found to be having values more than 1.75 and the 28 item were discarded from the list due to their lower value on item analysis which is marked with star (*). The range of the t value were ranging between 0 (lowest) and 3.5 (highest). According to Edwards, the t-value above 1.75 of any item has high discriminating power which could be placed in the final attitude scale. Therefore, the attitude scale consisted of 44 (36 positive and 8 negative items) which were finally included in the scale. Items not classified by the majority of judges as either positive or negative with regard to the attitudinal object were eliminated from consideration for use in the final scale.

Table 2. Reliability of scale

Cronbach alpha	Set 1	Value	0.767
		N of items	22[a]
	Set 2	Value	0.875
		N of items	22[b]
		Total N of items	44
Correlation between sets			0.665
Spearman brown coefficient		Equal length	0.761
		Unequal length	0.761

Reliability, according to Ray & Mondal (1999), relates to the precision or accuracy with which a measurement or score is taken. According to Kumar (2016), a test is said to be dependable when it consistently produces the same results when applied to the same sample. The split half model reliability coefficient was 0.761, according to the reliability data for the developed attitude scale (Spearman brown coefficient). The reliability coefficient revealed that the attitude scale devised had a high internal consistency which is the most important aspect of attitude scale creation because it demonstrates the scale's robustness.

According to American Psychological Association (1966), the representativeness or sampling adequacy of the content substance, matter, and themes of a measuring instrument is known as content validity. As the scale was developed with the help of 30 judges who reviewed all of the revised statements and the experts' recommendations were implemented into the scale. As a result, the content validity of the current scale was met. Finally, 44 items under six broad heads are considered to assess farmers' attitudes toward the entrepreneurial climate for agribusiness development, and they were structured in such a way that positive and negative words appeared at random to avoid bias answer. Against each of 44 item there are five columns representing a five point continuum of agreement or disagreement to the item as followed by Likert (1932). The points on continuum are strongly agree, agree, undecided, disagree and strongly disagree with respective weight of 4, 3, 2, 1 and 0 respectively for favorable (positive) item and with weight of 0, 1, 2, 3, and 4 respectively for unfavorable (negative) item.

CONCLUSION

The concept of Entrepreneurial climate is gaining attraction and the attitude of agripreneurs in shaping/influencing the entrepreneurial climate is critical to the success of agribusiness. The measurement tool created to assist researchers, policymakers, and anyone interested in determining agripreneurs' attitudes toward the EC in a given location. The scale may aid them in conducting baseline surveys in order to make policy decisions on agribusiness growth or a behavioural change awareness programme. The created tool has a reliability of reliability coefficient was 0.761 which may be termed as highly consistent, hence usable in varied conditions.

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