Original Research Article

Garrett Ranking Analysis for Constraints Faced by Selected ICTs based Agristart-ups in Effective Functioning

Abstract

The widespread adoption of technology through digital platforms is critical towards transforming India's agriculture. For this goal ICTs based agristart-ups are established for proper utilization of resources and increase employment and farmers income. The investigation was conducted in Indore district of Madhya Pradesh to identify the constraints faced by administrators for effective functioning of agristart-ups. Descriptive research design was applied and data was collected from 80 administrators, which were selected by simple random sampling method with replacement. The data were collected from structured questionnaire. The roots of the problems were outline through the garrett ranking method.

Key words: agristart-ups, constraints, agriculture and administrators

Introduction

The agribusiness ecosystem comprises the business activities performed aims accelerate our transition to a sustainable food system, covering the entire value chain, from the supply of agricultural inputs, the production and transformation of agricultural products and their distribution to final consumers. Indian agribusiness remains largely unorganized and unstructured, with presence of multiple levels of intermediaries and middlemen across the agriculture value chain. This sector is highly fragmented and unorganized, with small and marginal farmers as the primary providers of food and nutrition to the country.

It is quite natural that a change in the system of agriculture in a country of more than a million people should be a well thought out process, which requires utmost care and caution. There may be several impediments on the way. An understanding of these problems and prospects will go a long way in decision-making. In order to address the key constraints faced by agristart-ups functionaries with respect to running the agristart-ups are mentioned and discussed in this paper.

Material and Method

The investigation for the research question was made in Indore district in which four agristart-ups, Gramophone, Farmkart, Plant biotix and Farmsbest were selected. The sample size was 20 administrators from each agristart-ups and hence there were 80 administrators for study. A structured questionnaire was used for data collection. The collected multiple responses of 80 administrators with respect to constraints were tabulated by using Garrett Ranking method.

Garrett Ranking

Garrett ranking technique was used to rank individual preferences indicated by respondents regarding different factors. As per this respondents were asked to assign the rank for all under different categories. Then the outcome of ranking was converted into score value with the help of following formula:

Where Percent position = $100(Rij-0.5)/Nj$

Rij = Rank given for i^{th} variable by j^{th} respondents

Nj = no of variables ranked by j^{th} respondents

With help of Garrett table, the percent position estimated was

With the help of Garrett table, the percent position estimated was converted into scores. Then for each factor, the score of each individual were added and total scores and mean value was calculated. The factors having highest mean value was consider the most important factor.

Result and Discussion

Constraints are the problems faced by the agristart-ups functionaries for effective functioning of agristart-ups. To determine the extent of constraints faced by the functionaries, Garrett ranking method was applied. Based on score the constraints were grouped according to their ranks.

Table 1: Constraints faced by selected agristart-ups in effective functioning

S.No.	Constraints	Percent position $=100(R_{ij}-0.5/N_j)$	Garret value

1	Absence of family support	5	82
2	High stress due to multiple workload	15	70
3	Huge competition from established enterprise	25	63
4	Risk and uncertainty may collapse the business	35	58
5	Uncertainty of price of commodities at the market	45	52
6	Available technology is not suitable for meet needs of client	55	48
7	Health is not supporting for business	65	42
8	Unsupportive bank officials and poor cooperation	75	36
9	Complication in disbursement of fund among operation	85	29
10	Inadequate skill to convince the client	95	18

Table 1 shows that percent position of each and every constraint and the corresponding garret value from garret table. The percent position of family support is 5 and garret value is 82, High stress due to multiple workload percent position is 15 and garret value is 70, Huge competition from established enterprise percent position is 25 and garret value is 63, Risk and uncertainty may collapse the business percent position is 35 and garret value is 58, Uncertainty of price of commodities at the market percent position is 45 and garret value is 52, Available technology is not suitable for meet needs of client percent position is 55 and garret value is 48, Health

is not supporting for business percent position is 65 and garret value is 42, Unsupportive bank officials and poor cooperation percent position is 75 and garret value is 36, Complication in disbursement of fund among operation percent position is 85 and garret value is 29 and Inadequate skill to convince the client percent position is 95 and garret value is 18.

Table 2 Ranking of constraints according to garret score

S.No.	Constraints	Garret total score	Average score	Ranking
1	Absence of family support	3189	39.86	VIII
2	High stress due to multiple workload	4302	53.77	II
3	Huge competition from established enterprise	4269	53.36	IV
4	Risk and uncertainty may collapse the business	4296	53.70	III
5	Uncertainty of price of commodities at the market	2942	36.77	IX
6	Available technology is not suitable to meet needs of client	4095	51.18	VI
7	Health is not supporting for business	3958	49.47	VII
8	Unsupportive bank officials and poor cooperation	4687	58.58	I
9	Complication in disbursement of fund among operation	4188	52.35	V
10	Inadequate skill to convince the	2764	34.55	X

	client			

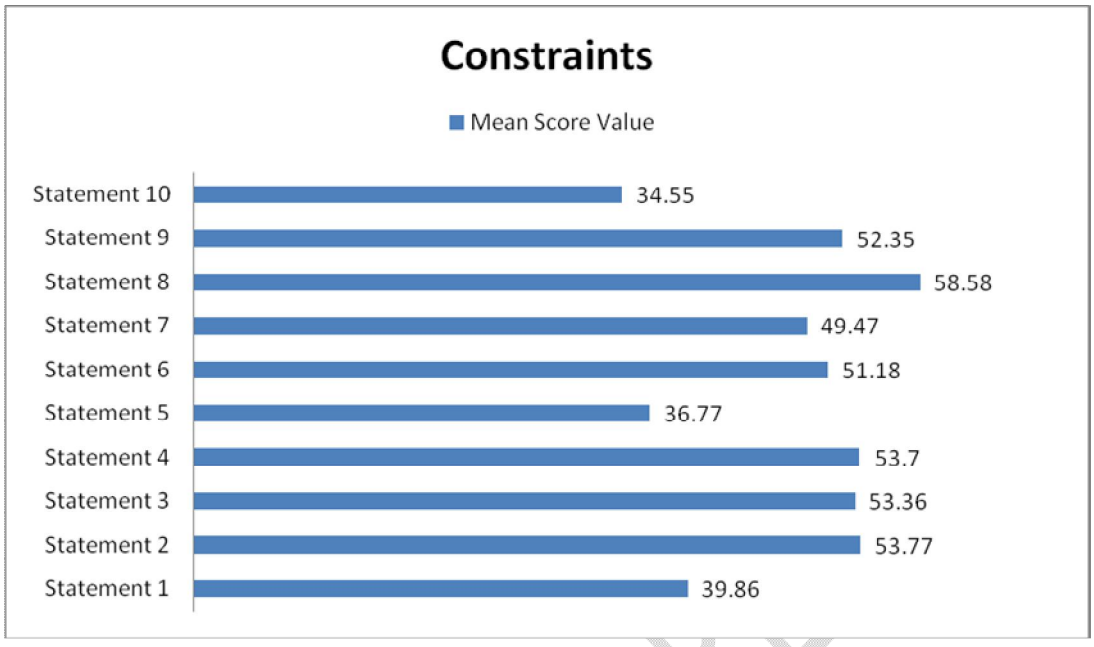

Fig 1 Distribution of constraints according to garrett ranking

Among the enlisted constraints faced by selected agristart-ups in effective functioning Table 2 reveals that, unsupportive bank officials and poor cooperation was major constraints with the score 58.58. It was observed by the respondents that there was not much support from the institutions for new project due to paper work for loan sanction and in getting license from state departments. Formal institutions were hesitating to provide loan for new or young people. The present findings find support from the work of Karjagi *et al.* (2009), Yadav (2012) and Afroz (2019).

As regarding to constraints, high stress due to multiple workloads was ranked second with score 53.77. The probable reason might be that the agristart-ups are small enterprise with limited number of employees and they perform more than one function at a time. The finding is in line with the work of Balaganoormath (2015).

To the constraints, risk and uncertainty may collapse the business was ranked third with score 53.70. The probable reason might be drastic change in market condition or demand and supply of product due to some pandemic. Other major point is that agristart-ups should consider need and geographical condition of client. The findings are in line with the work of Balaganoormath (2015) and Dobrowolski *et al.* (2021).

Huge competition from established enterprise was ranked fourth with score 53.36. The probable reason could be well-established business, grater experience and knowledge of market situations Like market intelligence and market news, demand supply, forecasting about prices. Local input dealers were also creating the boundless competition for agristart-ups. The finding is in line with the work of Chandrasekhar (2010), Yadav (2012) and Bairwa (2015).

Ccomplication in disbursement of fund among operation was ranked fifth with score 52.35. The probable reason might be that in peak season, agristart-ups functionaries need large amount of fund for purchasing inputs like planting material, hybrid seeds for different crops. Also there may be need to repair or install new devices for advisory services like information about high yielding variety, package of practices, new technologies according to geographical condition. The similar findings were reported by Chandrasekhar (2010) and Yadav (2012).

Available technology is not suitable for meet needs of client was ranked sixth with score of 51.18. The probable reason might be because agriculture is an uncertain business due to different climatic condition and different geographical condition at field level there was a lot of technical problems faced by clients. Technology depends upon the farming system, farming pattern, availability of resources and cost effectiveness. The work is in line with Chandrasekhar (2010).

The constraint available technology is not suitable for meet needs of client was ranked sixth with score of 51.18. The probable reason might be because agriculture is an uncertain business due to different climatic condition and different geographical condition at field level there was a lot of technical problems faced by clients. Technology depends upon the farming system, farming pattern, availability of resources and cost effectiveness. The work is in line with Chandrasekhar (2010).

Health is not supporting for business was ranked seventh with score 49.47. The probable reason could be that respondents are eager to achieve the business goals in less period of time so they do overwork thus neglecting their health, as a result they have so many health issues which adversely affect the work efficiency of respondents. The finding is in line with the work of Balaganoormath (2015).

The constraint lack of family support was ranked eight with score 39.76. The probable reason might be poor family background and high-risk involvement in

agriventure. Also most of the family encourages respondents for job (public and private sector) because of future security. The findings find support from the work of Yadav (2012), Bairwa (2015) and Afroz (2019).

Uncertainty of price of commodities at the market was ranked ninth with score 36.77. This could attribute to the fact that some intermediary hikes the price to create artificial demand in the market. The similar findings were reported by Chandrasekhar (2010) and Yadav (2012).

The constraint inadequate skill to convince the client ranked tenth with score 34.55. The probable reason could be the communication gap between the functionaries of the agri start-ups and their clients. The similar finding was reported by Chandrasekhar (2010).

Conclusion

The start-ups initiative is well-conceived for giving employment to unemployed agriculture graduates through agribusiness. A novel proposal to support the efforts of unemployed agricultural graduates to become agripreneurs is to provide training and subsidized finance. However, the constraints that the administrators of the agristart-ups faced must be solved via appropriate modification of the scheme and regulatory adjustments, particularly for the credit facility of the bank. The success of agristart-ups will considerably rise if the right steps are followed. The growth and promotion of the agribusiness sector is closely linked to the agricultural production, agro-processing, services sectors, particularly to the farmers, and is therefore helpful for the expansion of the nation's agriculture.

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