

Critical Success Factors (CSF) for Agri-clinics and Agri-business Centers (AC & ABC) Scheme in India

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Paper Received on September 27, 2015, Accepted on November 28, 2015 and Published Online on December 10, 2015

ABSTRACT

The Agriclincs and Agribusiness Centres (ACABC) is an innovative scheme implemented in India which tries to transform unemployed agricultural graduates as agripreneurs through entrepreneurship development training and appropriate financial support in order to extend broad-based extension services to the peasant community. Though, over 15000 agricultural graduates are trained in this scheme, the success rate of establishment of agribusiness ventures by the trained graduates is only 35%. This fact necessitates identifying critical success factors (CSF) of successfully established agribusiness ventures and inculcating such CSF in the mindset of interested graduates through appropriate training. Keeping this in view, a study conducted by National Academy of Agricultural Research Management (NAARM), delineated 14 CSF through a pilot study in the first step and standardized and prioritized through a questionnaire survey among successful agripreneurs (87) by rank-based quotient (RBQ) analysis. The results of this study not only provide pointers for nodal training institutes (NTIs) to redesign the training programmes but also ideas for promoting entrepreneurship in agriculture. This paper also presents the details about the success stories of three agripreneurs that were documented during the pilot survey, which would serve as strong business lessons for the agricultural graduates who dream to become successful agripreneurs.

Key words: *Agriclincs and Agribusiness Centres; Critical success factors; Entrepreneurship;*

It is imperative to evolve a mechanism for effectively integrating front-end activities of agri-supply chain (processing, storage, retail and wholesale marketing) with back-end activities of farm production in India, in order to provide efficiency, assured and remunerative prices, ensured market etc. (Venkattakumar and Sontakki, 2011). Agribusiness and agro-industrial sector in India contributes a considerable share of the overall employment of industrial sector, as well as in value addition and income generation (Gandhi and Jain, 2011). Out of the total income of farm households, around one-fourth (24.4%) is contributed by non-farm business and it is 33.9 and 27.4% for sub-marginal and marginal farmers (Birthal et al., 2007). Agribusiness provides innovative approaches to farmers for value addition, thereby lowering the risk of farmers. Hence, a

shift from 'agriculture' to 'agribusiness' is being viewed as an essential pathway to revitalize Indian agriculture. In such scenario, it is crucial that alternative agribusiness and agro-industrial models are encouraged to emerge to contribute rural employment, poverty alleviation and sustainable development.

Wide extension gaps in Indian agriculture are mainly due to shrinking services from public extension system (Shekara, 2003). On the contrary, more than 15000 unemployed and fresh agricultural graduates are easily available every year, who could be utilized for supporting back and front-end activities of agriculture. Thus, with a view to provide viable opportunities for unemployed agricultural graduates to complement government extension efforts, Ministry of Agriculture, Government of India, in association with the National

Bank for Agriculture and Rural Development (NABARD), Small Farmers' Agribusiness Consortium (SFAC), and the National Institute for Agricultural Extension Management (MANAGE), Hyderabad launched a scheme "Agriclinics and Agribusiness Centres (ACABC)" in 2002 (Shekara, 2003).

The scheme is supposed to provide agro-advisory services to farmers through technically trained agricultural graduates (trained through identified nodal training institutes), known as 'agripreneurs'. Bank loans are available for such agripreneurs with back-ended and credit-linked subsidy refinanced by NABARD to establish need-based agribusiness ventures. The scheme aimed to supplement the public extension system, increase the availability of inputs and services to the farmers and provide gainful employment to the unemployed agricultural graduates (Ahire et al., 2006; Karjagi et al., 2007 and Karjagi et al., 2009).

There are 55 nodal training institutes (NTIs) all over the country, identified by MANAGE, to train the unemployed agricultural graduates. From 2002 to 2009, 19504 agri-graduates were trained under this scheme (Shekara et al., 2011). Table 1 presents the kinds of agribusiness ventures established by agripreneurs under ACABC in India. As an obvious impact of this venture, majority of the sample farmers received free agro-advisory and quality inputs from the ventures, whereas about 90% of the farmers adopted improved production technologies. Professionalism in agricultural extension has been brought by agripreneurs and thus contributed

to the overall development of agriculture (Shekara and Durga 2007). However, there was no expected progress from the trained agricultural graduates in establishing business ventures (Karjagi et al., 2009).

Higher rate of interest, lack of handholding support from the NTIs, bankers' resistance to finance, lack of subsidy and lack of resources for collateral security, need for huge initial investment, lack of support from the family and the fear of collection of money from the farmers for the services were the problems faced by the trained agricultural graduates (Ahire et al., 2008). Another spectrum of factors that brought-in hurdles to the scheme were lack of business and field experience for the trained graduates, long procedure involved in getting the bank loans, huge risk involved, nature of seasonal business and permanent employment opportunities for the trained graduates from the government and private sector (Karjagi et al., 2009). NTIs should redesign the pedagogy and training environment and extend adequate hand-holding support so that the ventures are established on a sound footing (Ahire et al., 2008). There is a lack of link between the NTIs and the financial organizations for availing loan as well as subsidy facilities (Karjagi et al., 2007) and lack of training on economically viable projects (Karjagi et al., 2009).

All these point-out the need to redesign the training approach and ensure handholding support to the potential agricultural graduates. Critical success factors (CSF) are those elements/issues/factors that are vital for an/a

Table 1. Business ventures established by agripreneurs under ACABC in India

Agriclinics related ventures	Agribusiness related ventures
<ul style="list-style-type: none"> • Soil, water and input testing laboratory service centres • Information kiosk in rural areas • Plant protection service centres • Agri-service centres • Extension consultancy services • Veterinary dispensaries • Food processing and testing units • Mobile veterinary clinics 	<ul style="list-style-type: none"> • Micro-propagation units • Vermiculture units • Units for production of bio-control agents and bio-pesticides • Hatcheries and aquaculture • Farm level cold chain • Storage structures and retail marketing outlets • Value addition centres • Maintenance and custom-hiring of agricultural implements & machinery • Seed processing ventures • Bio-fertilizer units • Apiaries • Agricultural insurance schemes • Livestock health cover services • Post-harvest management centres • Rural marketing dealerships of farm inputs and output

Table 2. A review of ACF of agribusiness ventures around the world

Reported by	Situation/ stakeholders	Country	CSF
Gandhi et al (2001)	Agro-industries	India	Creation of sufficient incentives for farmers to produce and supply; transparency in providing the services; providing farmers access to high quality processing technology; effective market intelligence
Abu-Bakar et al, (2003)	Entrepreneurs	Malaysia	Government support for finance and training; continuous communication and franchise image
Carlberg et al, (2006)	New generation cooperatives	The USA	Low production cost; marketing efforts; product focus; product quality; reputation; quality of labour force; Government finance
Sharma and Singh, (2006)	Fertilizer industry	India	Service to the customers/ consumers
Duschesnear and Gartner, (1990); Pratt,(2001); Benzing et al, (2005); Coy et al, (2007)	Small and medium enterprises	-	Previous experience of the owners; interpersonal skills; access to capital; hard work
Onwumere, (2008)	Piggery-based small and medium enterprises	Abia state	Education level of operators; firm size; income of the entrepreneurs; experience in entrepreneurship; age
Benzing et al, (2009)	Managerial CSF Environmental CSF	- -	Managing the workforce and accounts Government support; access to capital; support of family and friends
Frese et al, (2002) and Stefanovic et al, (2010)	Psychological CSF	-	Urge of independence; innovativeness; attitude towards risk; competitive nature
Das et al, (2010)	Input dealers	India	Effective utilization of information sources; trainings received about agriculture; retailing ability; communication skill; sales promotional activities; investment capacity
Hussain and Windsperger, (2011)	Small and medium enterprises	-	Experience and knowledge about the local market
Al-Mahnouq, (2011)	Small and medium enterprises	Jordan	Technical procedures and technology; financial structure; marketing; productivity; human resource structure
Naqvi, (2011)	Small and medium enterprises	Pakistan	Customer service; know-how of the business; past experience of the manager
Mohamed et al (2011)	Agricultural entrepreneurs	Malaysia	Modern implementation; attitude towards agriculture as business
Rezai et al, (2011)	Peasants	Malaysia	Innovativeness; visionary; managerial skills; level of formal education; education in agriculture; experience in agriculture

organization/project/venture/strategy to be successful. Identification of CSF, therefore, becomes crucial to enhance the effectiveness and success. In that way, identification of CSF of ACABC would help in enhancing the effectiveness and success rate of ACABC amidst the above-stated constraints in implementing the scheme. Table 2 presents a review of various set of CSF that contributed to the success of agribusiness ventures around the world.

This paper discusses about the CSFs delineated for already established ACABC, which could provide some leads for NTIs in redesigning training programmes being organized by them for the potential agripreneurs and thereby provides pointers for promoting entrepreneurship in agriculture. The results presented in this paper are based on the two hypotheses proposed and tested. Is there any CSF responsible for successful establishment and sustenance of agribusiness ventures?

(H1) and whether the CSF could be prioritized in terms of their significance to the business success? (H2).

METHODOLOGY

Delineating CSF: To identify and delineate the CSF responsible for the establishment and sustenance of agribusiness ventures, a pilot study among the agripreneurs who are successfully running their agribusiness ventures was conducted to prepare an exhaustive list of CSFs. The pilot survey area pertains to Andhra Pradesh. Three selected successful agripreneurs were interviewed, through open-ended questions in a case study mode. These three agripreneurs were selected based on the opinion of MANAGE, Hyderabad that closely monitor the trained graduates. The data collected through the pilot survey was utilized to list 14 CSFs.

Prioritization of CSF: The identified CSFs were listed in a questionnaire and administered among the successful agripreneurs who underwent refresher training at MANAGE, Hyderabad during 2010-11. The participant-agripreneurs (100) of five such refresher

training programmes were requested to prioritize and rank the CSFs, based on their experience and the perceived relevance and significance of the same to their agribusiness ventures. Out of the 100 respondents, 87 responded to the administered questionnaire completely and thus constituted the respondents of the study. These respondents represented eight states of the country (India), of-whom more than two-third (Figure 2) were representing Maharashtra. The collected data were analyzed and ranked by rank-based quotient (RBQ) (Shenoy *et al.*, 2006) values using the following formula,

$$RBQ = \frac{i_n^2 \sum f_i (n + 1 - i)}{N \times n} \times 100$$

where,

i = rank concerned

N = total number of respondents responded for a critical success factor

n = number of ranks

f_i = number of farmers ranked a particular critical success factor under i th rank

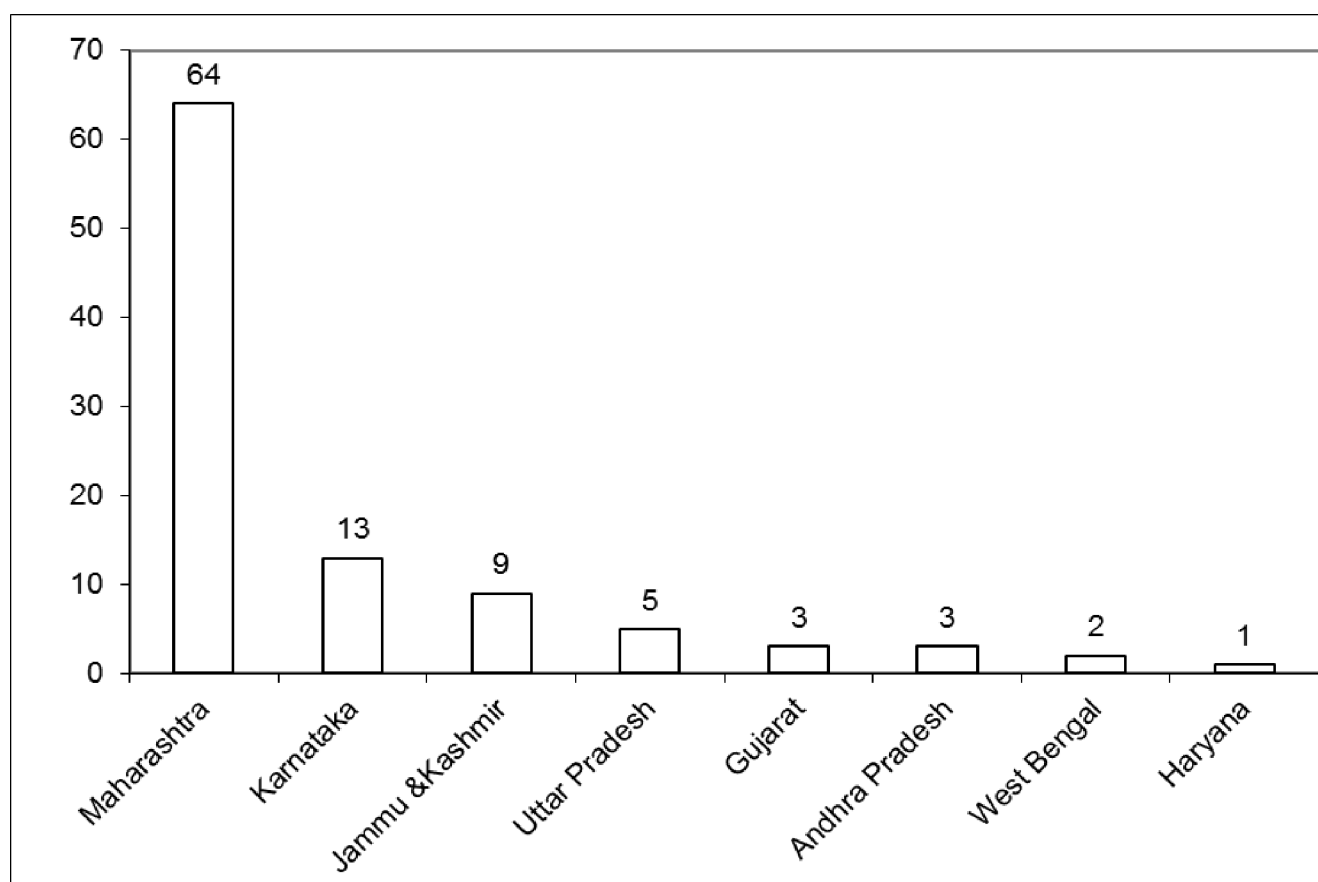


Fig. 1. State-wise distribution of respondents (%)

RESULTS AND DISCUSSION

Delineation of critical success factors (H1): Based on the pilot survey among the three successful agripreneurs, a list of 14 CSF were delineated (Table 3). CSF ranked as 1,2,3,5,6,7,9,10, 12 and 14 may be classified as ‘managerial CSF’, as these CSF are based on the managerial ability of the agripreneurs. CSF ranked as 4, 8 and 11 may be classified as ‘situational CSF’, as these CSF depend on the situation around which the agripreneurs established, continued and expanded the business venture. The 13th ranked CSF may be classified as ‘psychological CSF’, since it depends on the risk bearing ability of the agripreneurs and their attitude and vision in developing and expanding business. The H1 was tested and it could be concluded that there are many CSF that decides the success of establishment and sustenance of agribusiness ventures.

Prioritization of CSF (H2): The 14 delineated CSF through pilot survey CSFs were ranked based on the RBQ values calculated against the response of successful agripreneurs (Table 3). Based on the average RBQ value, it could be implied that the first 9 ranked CSF very much important for establishing and sustenance of agribusiness ventures. Hence, these CSF deserve adequate significance as far as the redesigning the training module for the selected unemployed agricultural graduates by the NTIs. The H2 was tested and it could be concluded that certain CSF are regarded with higher importance than certain other CSF and the priority throws light for redesigning the training module.

The first CSF signifies the importance for ‘customer satisfaction’. Obviously, the satisfaction of customers in accessing agro-advisory and input services will fetch the concerned ACABC a fair name from its customers and such information will definitely spread from farmer to farmer. Such factor was also reported for the success of agro-industries (*Gandhi et al., 2001*), fertilizer industry in India (*Sharma and Singh, 2006*) and small and medium enterprises in Pakistan (*Naqvi, 2011*).

The second and fifth CSF speaks about the need for ‘thorough knowledge of the agripreneurs about the agribusiness ventures and the latest innovations pertaining to their business ventures’. The agripreneurs, to be competitive, need to have thorough knowledge about the latest innovations and technologies pertaining to agricultural and allied sectors. Further, having adequate knowledge about the venture may help to face

Table 3. Critical Success Factors of ACABC in India (N=87)

Critical Success Factors	RBQ	Rank
Satisfactory services to the customers	70.0	I
Up-to-date knowledge on latest innovations in the field	60.1	II
Timely introduction of sector innovations	57.6	III
Adequate professional experience in the sector before ACABC	56.9	IV
Thorough knowledge about the subject dealt with	56.5	V
Fair relationship with the customers	51.9	VI
Maintaining the professional network	50.2	VII
Adequate business experience before ACABC	49.3	VIII
Frequent interaction with related professionals	47.6	IX
Unique advertisement strategies	42.1	X
Obtaining adequate training related to the sector	41.5	XI
Satisfying your employees	38.6	XII
Gradual diversification of services to the related arenas	37.6	XIII
Creating brand image for services	36.6	XIV
Average RBQ	45.7	

the competition without much difficulty and serve the customers with overwhelming confidence. The significance of such CSFs was reported for the success of small and medium enterprises in Pakistan (*Frese et al., 2002 and Naqvi, 2011*).

‘Being innovative in introducing the venture-specific initiatives’ was the essence of the third-ranked CSF. This CSF implies that introduction of innovative technologies, cultivars, chemicals, fertilizers, cropping pattern, services etc., will receive appreciation from the consumers, if such innovations bring significant changes in the productivity of agricultural and allied activities and the resultant socio-economic status of the farmers. Similar theory was reported for the success of agripreneurs in Malaysia (*Rezai et al., 2011 and Mohamed, 2011*). ‘Fair customer relationship’ has been highlighted as the sixth-ranked CSF. The importance of this factor in establishing and sustaining the business is self-explanatory and has been reported for the success of small and medium enterprises (*Duschesnean and Gartner, 1990; Pratt, 2001; Benzing et al., 2005; Chu et al., 2007 and Coy et al., 2007*).

'Maintaining professional linkage' and 'frequent interaction with the related professional' were the seventh and ninth-ranked CSF. Close professional linkage with public, private and third sector players would help in expanding agribusiness at a larger space. This would help in promoting their willingness to go beyond the confines of acquired knowledge through interaction with similar agripreneurs. This would also help in diffusion of successful approaches across the states. It also explains about the need for being close with the government officials and research professionals related to the venture so that the agripreneurs can have up-to-date knowledge with the latest technologies, innovations and schemes that could benefit the farmers as well as the agribusiness ventures. Such relationship was felt important by the Malaysian entrepreneurs to be the dominant franchisers (*Abu-Bakar et al., 2003*).

The tenth-ranked CSF was about having 'unique advertisement strategies' for promotion of the business ventures in order to attract the target group. Such strategies were felt necessary for the success of new generation cooperatives in the USA (*Carlberg et al., 2006*). 'Satisfying the employees' was the 12th-ranked CSF and this CSF is self-explanatory. The need for such CSF was reported for the success of new generation cooperatives in the USA (*Carlberg et al., 2006*) and small and medium enterprises (*Benzing et al., 2009*). The last-ranked (14th) CSF was 'creating brand image' for the business venture. Creation of brand image not only identifies the particular ACABC venture or its service but also the quality of service rendered. The importance of such image was reported as 'franchise image' for the success of Malaysian entrepreneurs (*Abu-Bakar et al., 2003*).

The fourth-ranked CSF was all about the 'experience in the profession (venture) before establishing the business venture'. The agripreneurs, irrespective of their professional background namely agriculture, horticulture, animal husbandry, fisheries, sericulture, etc, if possess adequate experience can perform well in businesses related to their professional background. Though all the agripreneurs cannot have adequate professional experience before starting a venture, the role of NTIs should be in such a way that the capacity building can help the agripreneurs in

venturing into business with strong footing. Similar CSF was reported for the success of farmers in Malaysia (*Rezai et al., 2011*).

The eighth-ranked CSF invites the need for 'adequate business experience' for the agripreneurs. The professionals who do not have enough business experience need to adequately utilize the training by NTIs and the NTIs are supposed to extend sufficient support in this regard. Such view was reported for the success of small and medium enterprises (*Duschesnean and Gartner, 1990; Pratt, 2001; Benzing et al., 2005; Chu et al., 2007; Coy et al., 2007; Onwumere, 2008; Hussain and Windsperger, 2010 and Naqvi, 2011*). The 11th-ranked CSF throws light on the need for 'adequate training' for the agripreneurs in the related ventures. The need for refresher training in the related topics was also reported for the success of Malaysian entrepreneurs (*Abu-Bakar et al., 2003*).

'Gradual business diversification' was the 13th-ranked CSF and was also reported for the success of farmers in Malaysia and termed as 'Visionary' (*Rezai et al., 2011*) and as 'attitude towards risk' (*Frese et al., 2002 and Stefanovic et al., 2010*).

CONCLUSION

The results of the study essentially point-out the need for creating necessary awareness among the NTIs and the needed interventions to be introduced by NTIs to bring-about a change in the training approach and the post-training support to agripreneurs. Such interventions may be changes in the selection process of the trainees, redesigning training curriculum, approach to training, engaging credible and competent resource persons for the training, post-training monitoring and evaluation approaches and the overall system procedures. The often-quoted adage "change is slow and difficult, but is necessary" applies to the above-indicated changes for the ACABC scheme. If these changes are properly envisioned and systematically implemented, the success rate of ACABC scheme is bound to increase considerably. It may also be worthwhile to substantiate the importance of these identified CSFs through field-oriented case study and research with successful and not-so successful agripreneurs.

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