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Filling the Information Gap Through Developing and Validating Entrepreneurial Technical Information Packages (ETIPs) for Potential Agricultural Entrepreneurs

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ABSTRACT

Many potential entrepreneurs are not able to reap benefits of good technologies and protocols standardized at research institutes as they are not readily available to farmers for adoption in appropriate Entrepreneurial Technical Information Packages (ETIPs) form. An attempt was made to take up action research to develop such packages including the thorough technical analysis and precise in terms of projects inputs (supplies) and outputs (production). Perception of practitioners and experts on information needs of an enterprise was considered as the basis for the development of such packages. The exploratory part of the study was carried out in NCR of Delhi. On the basis of need analysis and potential of the area, six implementable agricultural technologies; mushroom production, vermicomposting, hybrid tomato seed production in net house, baby corn cultivation, apiary and honey bee production and protected crop cultivation, were selected. To proceed for designing of implementable ETIPs the strength of relevance of information and need for agri enterprise creation was established. The data from established entrepreneurs, experts in the subject matter, journalism experts were collected through survey and case study method. These technological packages were tested and refined. Farmer's practices in planning, management of their farm enterprises and their information needs were made part of the final packages. Exploratory methods were used for assessing opinions of all stakeholders. The final package was found effective on almost all the journalistic parameters including content, format and illustrations.

Keywords: Journalistic parameters, Strength of relevance, Information need, Content, Format, Illustrations

INTRODUCTION

Planning is extremely important in the early stages of any venture as, developing a business idea, there is a need for potential entrepreneur to adopt a carefully moderated and intelligent technical approach. Different types of technical information that may be part of any business operation include; designing of premises, products, nature of products/services you will like to engage in, tools and equipment you require or materials needed for your production process. It may also be technology choice or advice on location and premises. One of the most often overlooked areas of information for entrepreneurship development is the financial information because when one having proper financial information then only one will know the amount of capital required for the kind of business and ways of sourcing it.

Farmers and rural youth desirous for starting their own agri-enterprises face a major problem of lack of information about the exact procedures to be adopted and how much to be invested. Timely availability of inputs, ease of credit facilities and use of Information and communication technology for bringing a trickle down revolution was highlighted by Kumar and Nain 2012. Several studies have highlighted the need for developing information packages for would be entrepreneurs, wherein they get not only the information regarding technical methods but also about the economic feasibility and expected profits from the endeavor. For farmers to become entrepreneurs, they need to learn the skill to manage their businesses as sustainable long-term ventures. They must be able to identify opportunities and seize them. Depending on the level of resource support, entrepreneurial policies can be classified as being hard or

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soft (Storey, 2005). Hard policies usually provide assistance in the form of finance (loans and grants) while soft measures include counselling activities to entrepreneurs before business start-up and at the start-up phase, facilitating financial assistance, enhancing technology and access to technology and improving access to physical infrastructure, or advice after the start. Mayberry, 2007 suggested research framework for various aspects of educational material from perspective of impact on learning and subsequent change in practice. In many cases an appropriate Entrepreneurial Technical Information Packages (ETIPs) which may facilitate the famers to get information on soft and hard policies are not readily available for adoption. Due to this gap, many farmers are not able to reap benefits of good technologies developed by research institutes (Nain *et al.,* 2012; Singh *et al.,* 2015). An attempt was made to take up an action research to develop such packages including project framework defined clearly enough to permit the technical analysis in thorough and precise way in terms of projects inputs (supplies) and outputs (production). Perception of practitioners and experts on information needs of an enterprise was considered as the basis for the development of such packages.

Developed business ventures protocols and information packages aim at designing and modeling entrepreneurial support tools for the transfer and distribution of business venture information. These packages may create an enabling environment and an economical information support services to entrepreneurs, policy designers and learning establishments in rural areas. Furthermore, they will provide valuable information to promote, develop and participate in intensive information and technology based assignments mostly in business incubators. To promote implementable farm innovations into commercial ventures with full participation of the local people, the strength of relevance of information and their need for consideration during designing of ETIPs was measured and on the basis of expressed strength six ETIPs were developed, validated and refined. The paper presents the process and the results of the action research.

MATERIALS AND METHODS

On the basis of discussion with the concerned scientists, micro screening exercises conducted in the villages of National Capital Region, and arrived at a decision to take up six implementable technologies namely; protected cucumber cultivation, tomato seed production, baby corn cultivation, mushroom cultivation, vermicomposting, and bee-keeping for designing and validation of the ETIPs as the expertise for the said technologies existed at Indian Agricultural Research Institute, New Delhi. The strength of information need was assessed based on the opinion of 30 practicing farmers and ten scientist experts for each of the technology. Thus a total of 180 farmers and 60 scientist experts were sampled for the study. The strength of felt need was assessed on five point continuum in increasing order (higher the score more the strength). The data were analyzed with weighted mean score and prioritization through ranking. On the basis of these assessed need strength, the content of the implementable technologies was designed in two languages (English and Hindi), validated and standardized. The effectiveness of the ETIPs was also measured. The effectiveness was measured on three major dimensions (each divided into sub dimensions) namely; content, format and illustrations. The perceived effectiveness was measured on five point continuum ranging from one to five. The data for effectiveness were collected from five experts and twenty potential entrepreneurs for each ETIP, making a total of 30 experts and 120 potential entrepreneurs as sample for the validation study.

RESULTS AND DISCUSSION

The study results are presented in two steps viz., the strength of relevance of information and their need for consideration during designing of ETIPs and the perceived effectiveness of the ETIPs by the stakeholders (experts and the potential entrepreneurs) after their design. The strength of information need of two types of stakeholders was recorded and presented in Table 1. It is clear from data that the strength of need of the different components were perceived differently by both the stakeholders (experts as well as farmers). The experts concentrated on accuracy of information, practicability of information, use of language, profitability, clarity of information, economic parameters, technical details and procedural details in order as prime focus. Whereas the farmers expressed the high relevance for materials required, language/readability of the ETIPs, technical details, precautions to be taken, clarity of Information, procedural details, accuracy and practicability of information and use of illustrations in decreasing order as major considerations. However, subject introduction, font size, logical presentation and details of risk involved could find rear seat in the perceived strength of the need by both types of stakeholders. Similar nature of finding were reported by Nain and Trikha (2009) during

Table 1: Perceived strength of relevance of information and their need for agri enterprise development

S.No.	Items	Strength of relevance of information (1-5 in increasing order)			
		Experts (n=60, ten in Each Enterprise)		Farmers (n=180, thirty in Each Enterprise)	
		Weighted mean score	Rank	Weighted mean score	Rank
1.	Subject Introduction	3.7	7	3.75	10
2.	Materials Required	4.7	4	4.95	1
3.	Procedural Details	4.9	2	4.85	3
4.	Technical Details regarding Diseases and Pest Management	4.9	2	4.90	2
5.	Details regarding risks involved	4.2	6	4.50	7
6.	Precautions to be taken	4.8	3	4.90	2
7.	Economic Parameters (Plant &Machinery , Raw Material, Manpower, Working Capital and Overall Project Economics)	4.9	2	4.60	6
8.	Relevancy of information	4.9	2	4.60	6
9.	Accuracy of information	5.0	1	4.75	4
10.	Information on profitability analysis	4.9	2	4.60	6
11.	Practicability of information	5.0	1	4.65	5
12.	Quantity and sufficiency of information	4.8	3	4.60	6
13.	Clarity of Information	4.9	2	4.85	3
14.	Logical Presentation	4.2	6	3.95	9
15.	Type size	4.6	5	4.00	8
16.	Use of Illustrations	4.7	4	4.75	4
17.	Use of Language/ Readability	5.0	1	4.95	1

analysis of training needs of farm journalists and found that layout, designing, editing farm periodicals, writing press release, analysis of target audience and use of graphics in the articles were the sub areas which need emphasis in human resource development activities. Surprisingly, the strength of relevance of information on economic parameters and profitability analysis were rated lower by the farmers in comparison with experts, it may be due to the fact that the data was collected from practicing entrepreneurs and they might be well versed with such information during their course of practice and have rated accordingly.

Table 2 shows the level of effectiveness measured from different stakeholders of the prepared ETIPs. It is clear from the data that both the stakeholders rated the content, illustrations and format as effective with slight variations in their response. In most cases the experts rated more effective than the potential entrepreneurs. Although the sub components of content were rated effective by potential entrepreneurs but the clarity and the relevance of the information were somewhat grey areas, this may be due to differential background of the respondents. In case of format of the ETIPs *use of sub titles* and *organisation of content* was rated somewhat less effective by the potential entrepreneurs and additionally *use of white space* by the experts. As far as the use of illustrations is concerned almost all the sub components were rated as effective, however the attractiveness of the illustrations and the size of illustrations need to be looked into to make it more effective. As the illustrations used in the content were of technical nature and the photographs depicted the action in technological intervention as such might not have attracted the attention of the potential entrepreneurs.

In overall it may be concluded that the content, format and illustrations of the prepared ETIPs were perceived as highly effective on journalistic parameters. Sorce and Dewitz (2007) reported that even in the internet age also, printed advertising was the most influential source of information for consumers who purchased personal care / home care products, and the second most influential

Table 2: Effectiveness of ETIPs on Journalistic parameters

Dimension	Sub-Items	Effectiveness of information (1-5)	
		Experts (n=30, five in Each Enterprise)	Potential Entrepreneurs (n=120, twenty for Each Enterprise)
Content	Relevancy to region/ area	4.8	4.90
	Market orientation of information	4.6	4.80
	Utility value of the content	4.5	4.70
	Accuracy of information	4.9	4.80
	Profitability analysis	4.7	4.70
	Readability of information	4.9	4.60
	Practicability of information	4.9	4.80
	Relevance to the need of the readers	4.9	4.25
	Adequacy of information	4.6	4.55
	Clarity of information	4.7	4.15
	Sequence of Presentation	4.8	4.90
	Explanation of technical terms	5.0	4.75
	Average of content	**4.78**	**4.66**
Format	Use of sub titles	4.4	4.2
	Use of tables and graphs	4.5	4.4
	Paper quality	4.9	4.9
	Font size	4.9	4.8
	Type size	4.8	4.8
	Use of white space	4.2	4.5
	Objectivity	4.6	4.6
	Organisation of the content	4.4	4.2
	Average of format	**4.59**	**4.53**
Illustrations	Appropriateness	4.9	4.6
	Attractiveness	4.5	4.5
	Use of colour combinations	4.7	4.8
	Layout	4.8	4.9
	Number	4.7	4.8
	Size	4.3	4.5
	Average of illustrations	**4.65**	**4.68**

source for those purchasing consumer electronics and home improvement products. Rehman *et al.* (2011) found the quality of information, newness, farmers' interest, and timeliness to be the major determinants of effectiveness of print media in the dissemination of agricultural information among farmers. Similarly, the designed ETIPs were perceived effective in terms of content, presentation and illustrations by potential entrepreneurs as well as the experts in the subject, as such it may be inferred that the exposures to the content of ETIPs have the potential to motivate the farmers for taking up income generating activities and ultimately the agri entrepreneurship development.

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