

ASSESSMENT OF ENTREPRENEURIAL BEHAVIOUR AMONG TEA SMALL HOLDERS IN LOW COUNTRY SRI LANKA

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ABSTRACT

Over the years Sri Lanka has gained profound popularity for its world renowned ‘Ceylon Tea’. Being one of the major plantation crops in Sri Lanka, tea industry plays a vital role in the Sri Lankan economy. Interestingly, tea small holding sector leads the industry by contributing 73% to the total tea production in the country out of which low country tea small holders own 82% of the production. Considering the importance of the tea small holders, this study mainly focuses on assessing the entrepreneurial behaviour and identifying the factors which determined the entrepreneurial behavior of tea small holders in low country. The study was conducted at *Kottawa* tea inspector’s division in Galle district. Randomly selected 60 tea small holders were interviewed using a pretested questionnaire. Entrepreneurial Behavioral Index (EBI) was constructed using the eleven attributes of entrepreneurial behaviour. Results revealed that the overall entrepreneurial behaviour of the tea small holders posted a value of 76.62. Among all the attributes, achievement motivation, farming knowledge and self-confidence were revealed as higher level entrepreneurial behaviour attributes. Rest of them such as innovativeness, management orientation, decision making, utilize available assistance, risk taking, leadership ability, coordination and cosmopolitanism have designated a medium level entrepreneurial attributes. Education level, family support, utilization of information sources and the number of trainings received were identified as the key determinants which has impacted significantly and positively on entrepreneurial behaviour. Finally this study recommends introducing the entrepreneurship development training programs to achieve the medium level components to highest level.

Key words: Tea, small holders in Sri Lanka, Entrepreneurial Behavior Index, low country

INTRODUCTION

Plantation sector plays as the major export owner in Sri Lanka where Tea, Rubber and Coconut has been the major agricultural export commodities out of which “Tea” has given a tremendous value for the Sri Lankan economy. It contributes about 2% to the overall GDP in the country through 180,429 Rs million value of tea exports (Central Bank, 2013). Small holders are the owners of less than 10 Acres in tea land. However, the extent of 4 – 20 ha (10 to 50 acres) are also included in small scale

cultivations and called as ‘proprietary’ (TSHDA, 2014). Tea small holders possess 121,428 ha which nearly accounts 60% of the total tea extent and have the highest contribution to the national tea production which accounts 73% of the national tea production values 247 Mn. kg (TSHDA, 2014). However, small scale tea growers still think that agriculture as a livelihood occupation not as an agric-food enterprise capable of moving Sri Lankan economy forward. Together with this perception and due to the incapability in obtaining appropriate product values, market

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information, etc. and series of implications of this scenario, there arises a threat of lowering the productivity of tea production and also would appear as a barrier to the rural development. To overcome these situations farmers must behave as change agents of rural development, with the same traits of entrepreneurship as visible in other sectors (Arudchelvi *et al.*, 2009). It is with this motive that developing entrepreneurship in the area of agriculture has drawn the attention of academics, researchers, and policymakers alike around the world. Researches on the entrepreneurial behavior stretches back to the early 20th centuries, where certain studies have come up with several determinants of the entrepreneurial behaviors. Jaffrey (Turan *et al.*, 2013) defined entrepreneurship as “the ability to create and build something from practically nothing. As Kumar and Narayanaswamy (2000) defined entrepreneurial behavior is a combination of seven components; innovativeness, decision making ability, achievement motivation, information seeking ability, risk taking ability, coordinating ability and leadership ability. As Subrahmanyeswari and Reddy (2003) described entrepreneurial behavior as the changes in knowledge, skill and attitudes while Swamy (1996) explained entrepreneurial behavior as not necessarily doing new things but also doing things in a new way that have been already done, but with different results. Kumar (2001) has explained that operationalized entrepreneurial behavior as the cumulative outcome of information seeking behavior, farm decision making, and leadership ability, risk taking ability, innovativeness, achievement motivation and market orientation of farmers.

Literature review uncovered that no study have been conducted in low country Sri Lanka to find out the extent to which entrepreneurial behaviour performed among the tea small holders. The present study was set as an integrated research aiming at assessing the entrepreneurial behavior of tea small holders in low country Sri Lanka as well as in identifying the key determinants of the entrepreneurial behavior of

tea small holders. Furthermore the study also provides insights on the constraints faced by tea small holders in low country Sri Lanka.

METHODOLOGY

The study was carried out in the *Kottawa* Tea Inspector’s range in Galle district, Sri Lanka. International tea Committee (2014), reports that low country has the highest contribution for the total national tea production between 2003 and 2013. Among the tea growing districts in low country, Galle includes the highest number (90,524) of tea small holders (Census of Tea Lands in Sri Lanka, 2005; TSHDA, 2014). Simple random sampling technique was employed to select 60 tea small holders. The study employed both primary data and secondary data. Primary data relating to scales of entrepreneurial behaviour attributes and the determinants of entrepreneurial behaviour of tea small holders were gathered from the selected respondents through well designed and pre-tested questionnaire for the agricultural year 2014. The entrepreneurial behaviour of tea small holders in the study area was realized by constructing the Entrepreneurial Behaviour Index (EBI).

The considered attributes of entrepreneurial behaviour are innovativeness, management orientation, achievement motivation, knowledge of farming, utilization of available assistance, risk taking ability, decision making, self-confidence, coordination ability, leadership ability and cosmopolitaness. The tested determinants of entrepreneurial behaviour were age, income gained from tea cultivation, extra income, family support, experience, utilization of information sources, level of education, number of trainings received and marketing facilities. The limitations and constraints which have been faced by the tea small holders were also gathered via the questionnaire.

Entrepreneurial behaviour index is an aggregate measure of all those eleven attributes. These components of achievement motivation,

leadership ability, decision making, ability to co-ordinate farm activities, knowledge of farming, cosmopolitaness and innovativeness were measured with the help of different scales developed by Nandapurkar (1982) and the rest; management orientation, risk taking ability and self-confidence were measured using the scales developed by Supe (1969) and Murali (1977). Utilization of available assistance was also measured with the help of a scale developed considering the available assistance in the study area. The different scales were applied by giving different score values. To make it comparable, the scores were computed out of ten. The composite EBI was calculated by aggregating all the scores of the above components.

Tabular and regression techniques were employed to analyze the data. The level of each attribute of entrepreneurial behaviour was studied under three categories, low, medium and high (ranked based on cube root cumulative frequency method) and overall status for the pooled data. To identify the key determinants of entrepreneurial behaviour of tea small holder step - up regression analysis was employed using SPSS version 20.

$$Y_1 = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + \mu$$

Where,

Y_1 = Entrepreneurial Behaviour Index

X_1 = Gender(1, if Male and 0, if Female)

X_2 = Education(1- if the farmer educated below O/L, 2- if the farmer sat for O/L examination, 3- if the farmer studied above O/L)

X_3 = Monthly tea income in Rupees

X_4 = Monthly extra income in Rupees

X_5 = Family support (1- If the farmer has family support, 0- If the farmer has not a family support)

X_6 = Training received (1- If they participate in training programs, 0-If they don't participate in training programs)

X_7 = Experience in years

X_8 = Information Utilization (1- If farmers utilize information sources, 0- Otherwise not)

X_9 = Marketing facilities (1- If they have marketing facilities, 0- If they don't have marketing facilities)

μ = Random error

B_0 = Intercept term

B_1 - B_9 = Parameter estimates

Table 1. Ranking of attributes according to their relative contribution to entrepreneurial behavior

<i>Component/Attributes</i>	<i>Mean Score</i>	<i>Level</i>	<i>Rank</i>
Achievement motivation	8.41	High	1
Farming knowledge	8.17	High	2
Self Confidence	7.85	High	3
Decision Making	7.4	Medium	4
Coordinate farm activities	7.11	Medium	5
Innovativeness	6.82	Medium	6
Management orientation	6.51	Medium	7
Cosmopolitaness	6.43	Medium	8
Risk taking ability	6.4	Medium	9
Leadership ability	6.01	Medium	10
Utilize available assistance	5.51	Medium	11
Entrepreneurial Behaviour Index	76.62		

RESULTS AND DISCUSSION

The assessment of the EBI of tea small holders was entailed using eleven entrepreneurial attributes. Of these, eight attributes namely; innovativeness, management orientation, utilization of available assistance, risk taking ability, coordinate farm activities, decision making, leadership abilities and cosmopolitaness were in the medium level (Table 1). Achievement motivation, farming knowledge, and self-confidence were ranked as high level. Therefore it can be noted that the entrepreneurial behaviour of tea small holders in low country were in a medium level since the majority employed the medium level scale. Among those eleven attributes, achievement motivation, farming knowledge and self-confidence largely contributed to the entrepreneurial behaviour index holding the top three ranks. Risk taking ability, leadership ability and utilization of available assistance determined as the least three contributors to the entrepreneurial behaviour of the tea small holders.

Achievement motivation was higher among tea small holders because they have targets to achieve such as buying lands, own vehicles and other personal goals. Since the tea cultivation is the main income source of most of them farmers tend to work hard without being lazy and they work more even though the task is difficult. Self-confidence was positively related with experience. Casson (1991) identified 'judgment' as one of the qualities that distinguishes the successful entrepreneur from the much larger group of non-entrepreneurial small scale enterprise owners. However, past experience can also filter out our ability to spot new opportunities or threats. Those who have several years of experience are able to make correct decision without any delay. Also they are very sure about their decisions and activities. Therefore they are less dependent on other sources of support. During the period of data collection it was understood that they were competent enough in knowledge to carry out their cultivations properly. The new

knowledge of farming enterprise was high among farmers who had years of experience. Those who had high level farming knowledge (53%) had adapted some new practices that usually others were not adapted and they had known about the advantages and disadvantages of the farm practices.

Results revealed that more than 60% of the sample had adapted in new tea varieties, new fertilizer recommendations and some farm practices such as soil ph testing and timely pruning. But it was found they were reluctant to shift to new machineries and improved practices which showed that they were poor in taking risks. There were 36% of farmers who were good innovators. Utilization of assistance also kept in a medium level as the well experienced farmers were not interest in taking instructions. Under this environment self-confidence component was high among the respondents because they believed on what they already know. Decisions on farming were made by 70% farmers themselves with keeping decision making ability at a medium level. Though the leadership ability is very important to be a successful entrepreneur it also was in medium scale among tea small holders. Study found that less participation in group meetings. There might be several reasons such as time limitations, not receiving solutions to their problems and lack of having new information. As they were lack in planning and marketing orientation skills, the variable of management orientation was found in medium level. It was hard to see that tea small holders have pre-planned activities. Generally they sell the green leaves to the regular buyers whom they trust but not on the competitive price. Most of the time farmers were used to get loans from the buyers in an informal way. The only assurance is the trustworthiness between the two parties. As a result, farmers were compelled to sell their products to the same buyer regardless of even the highest price in the market. Results showed that the level of the ability to coordinate farm activities recorded in medium level. It was under-

stood that farmers did not plan to synchronize farm activities well in advanced and mostly they used to do activities at the nick of time. Cosmopolitanness of the tea small holders was also found in medium level as they had been to other cities, they had visited agriculture related and non-related exhibitions and some of them were members of the organization outside the village. Frequent meetings with tea inspectors do make them to acquire a wide range of knowledge on tea cultivation.

The overall EBI index is 76.62 and this indicates that it can be improved the entrepreneurial behavior of small holders through improving areas where they are at medium level. So it needs to be implemented actions to increase the contribution of those medium level entrepreneurial attributes so as to enhance the entrepreneurial behaviour of the tea small holders in the low country. Nevertheless it could also lead the industry to be more profit oriented than running with the traditional motives.

The performance of farmers or the entrepreneurial behaviour is a fruit of physical, mental and sociological characters. Hence, this study attempted to identify the key determinants of the entrepreneurial behaviour of them. The identified variables were age, gender, education, monthly tea income, monthly extra income, family support, number of trainings received, information sources and marketing facilities. Results of regression analysis revealed that education, family support, training and information utilization were the key determinants of the entrepreneurial behaviour as they significantly and positively related to the entrepreneurial behaviour (Table 2). Another four factors namely age, gender, marketing facilities and income from tea also positively affected on entrepreneurial behaviour but not significant. However, extra income was found as a non-significant and negative factor of entrepreneurial behavior of small holders in the study area.

Present study has also found the problems and limitations faced by the tea small holders in the low country Sri Lanka (Table 3). Results further revealed the extent to which those problems have affected to the tea industry. Likely to almost all the sectors in agriculture, high cost of production was the worst among all the constraints. The major component of these was the higher labor costs as tea cultivation is certainly a labor intensive industry. Consequently, the profits obtained by the farmers who were not hiring external labors were much larger than those who were conducting cultivation using hired labors. According to the results labor scarcity was ranked the second critical limitation faced by the tea small holders of the study area. Seeking of white color jobs by the young generation was the reason for the labor scarcity. Lack of availability of skilled labour was also bonded with the labour scarcity. Adapting mechanization could be a timely solution for this problem of labor scarcity. Moreover it needs to emphasize that there should be continuous training programs for both tea leave pluckers and the land owners to introduce innovations and the knowledge on the cultivations on tea industry.

Poor quality of the input materials was ranked third among the list of problems studied, furthermore farmers have stated that even the

Table 2. Regression coefficients of key determinants of entrepreneurial behaviour

<i>Component</i>	<i>Standardized Coefficients</i>	<i>T</i>	<i>Sig</i>
Gender	0.175	1.634	0.109
Education	0.307	2.562	0.014
Tea income	0.041	0.303	0.763
Extra income	-0.138	-1.119	0.269
Family support	0.257	2.058	0.046
Training	0.268	2.179	0.035
Information	0.283	2.642	0.011
Marketing	0.005	0.043	0.966
Age	0.044	0.374	0.71

fertilizer obtained through subsidies were not up to a standard level. This has lead the farmers to use the fertilizers only within short periods regardless of applying fertilizer four rounds per year as per the recommendations by the TRI. Wild bores, black ants and live wood termites were the major pests in low country tea fields. The fields which were not cultivated with resistant varieties and not been maintained properly were much prone to be attacked by live wood termites. Experiences on drought periods were rare in the study area due to well distributed rainfall pattern in the low country of Sri Lanka. Oppositely these farmers have faced difficulties due to the heavy rains. One another burning issue raised by the farmers were the lack of availability of suitable planting materials and suitable soil for the nurseries. They have also stated that it is quite impossible to find planting materials of new cultivars. Farmers are reluctant to obtain planting materials from TRI regional centers due to long process for the registration. Price fluctuation was not raised as a serious problem among tea small holders since they were receiving a reasonable price for their green leaves.

CONCLUSION

In this paper it has explored the level of entrepreneurial behavior, the key determinants of

the entrepreneurial behaviour and the constraints faced by the tea small holders in low country. The study concludes with an analytical finding of entrepreneurial behavioural Index of 76.62 with majority of the entrepreneurial attributes being at medium level. The study has revealed that tea small holders in the low country have medium entrepreneurial behavior at eight attributes out of eleven namely; innovativeness, management orientation, utilize available assistance, risk taking ability, leadership ability, coordinate farm activities, decision making and cosmopolitaness. Thus these components needs to be identified as the components which needs to shift to a higher level in order to achieve higher level of entrepreneurial behavior of the tea small holders in the low country Sri Lanka. These can particularly be obtained through conducting Entrepreneurship development training programmes, exposing the farmers to recent developments in tea cultivation technologies, inputs and management and motivate them to adopt these developments in tea cultivation through group discussions, meetings, study tours and field trips sponsored by government and/or NGOs. Not only that higher entrepreneurial behaviour would there be lead to much profitable tea industry for the small holders rather than hanging on with the customary motives of just employing as a farmer.

Table 3. Problems faced by small holders being an Entrepreneur

Constraint	High	Medium	Low	Total	(%)	Rank
High COP	15	23	17	55	91.7	1
Labour scarcity	31	15	6	52	86.7	2
Poor quality materials	29	12	6	47	78.3	3
Adverse weather condition	8	16	10	34	56.7	4
Pest & diseases	2	13	12	27	45.0	5
Lack of materials	5	6	9	20	33.3	6
Price fluctuation	1	8	10	19	31.7	7
Poor support from family	3	3	3	9	15.0	8
Difficult contact assistance	3	2	1	6	10.0	9
Lack transport facility	0	2	3	5	8.3	10
Poor marketing facility	2	2	0	4	6.7	11
Land scarcity	0	2	0	2	3.3	12

The key determinants of entrepreneurial behaviour were education, family support, number of trainings and the utilization of information sources. They were significantly and positively impact on entrepreneurial behaviour. Study has also revealed main constraints for the tea small holders in low country Sri Lanka among which, higher cost of production (97%), labour scarcity (87%), poor quality of fertilizer (78%) were identified as the burning problems faced by the small holders in the study area.

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