IMPACT OF GROUP INTERACTIONS ON FARMERS' ENTREPRENEURIAL BEHAVIOUR

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Introduction

Amidst the diversity of approaches to examine it, one can find different definitions for entrepreneurship. Drucker identified entrepreneurs as people who see "change" as the standard, and actively go looking for existing change in order to exploit it [13]. There is a long history of economic research on entrepreneurship. In 'Theory of Economic Development' Schumpeter viewed the entrepreneur as an agent of change that is the source of his famous creative destruction [31]. Schumpeter identified an entrepreneur could be a single person, the country itself, or its agenda, can act as an entrepreneur [12]. He indicated that successful entrepreneurs elicit widespread imitation and it "presupposes a great surplus force over the everyday demand' [31]. In developing countries an entrepreneur is identified as a person who is self-employed, earns his living, establishes his business and has a status in society [14]. Webster's Dictionary [34] defines entrepreneurship as "creation of a new, innovative, profit oriented, visionary economic organization that exists in uncertain environments carrying some risk". In other words, an entrepreneur can recognize an opportunity, and add value through the resources. Empirical evidences suggest entrepreneurial behaviour as a function of the characteristics of the person and the environment [10]. Solanki and Soni [32] viewed that an entrepreneur may be differentiated not only in terms of the kind of activities he pursues but in the context of his life style, attitudes, values and behaviour contributing to the entrepreneurial personality. Findings suggest that entrepreneurship is conceived as a personal quality enabling individuals to make decisions with far reaching consequences, and success by acting differently from others. These results influence other people to change their mind too. Many contextual factors may exert an influence on entrepreneurial behaviour and success [37]. Entrepreneurs discover new sources of supply of materials and markets and they establish more effective forms of organizations and perceive new opportunities with super-normal will power and energy, essential to overcome resistance that social environment offers [32]. Entrepreneurs have been instrumental in initiating socio-economic development.

1. Entrepreneurship in Agriculture

Agricultural development facilitates a better living standard for farmers by producing more and selling more. Farming success tends to increase farmers' self-confidence. Increased contacts with merchants and government agencies would draw farmers into a closer acquaintance with the world beyond them [22]. Compared with other enterprises, agriculture has some unique problems, as it heavily depends on a biological relationship affected by the factors like climate, diseases, pests, storage, and fluctuation of price. An entrepreneur has little or no control over many of these factors. In the existing dynamic and competitive economic environment, collective efforts of farmers empower them with greater control [22]. Entrepreneurial behaviour of farmers has an impact on their profit making. Entrepreneurial behaviour depends on a number of factors like risk taking, feedback usage, persistence, hope of success, confidence, knowledge, manageability, achievement motivation, pursuability, and innovativeness [25]. Solanki and Soni [32] have identified 15 indicators of entrepreneurial behaviour viz; Decision making ability, Economic motivation, Market orientation, Knowledge of improved technology, Ability to coordinate available resources, Risk taking ability, Ability to solve problems, Credit orientation, Self-confidence,

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Scientific orientation, Communication skills, Experiences, Achievement motivation, Perceiving opportunities, and Perceiving management services. Chaudhari et al. [9] indicated entrepreneurial behaviour to be based on nine characteristics, viz. innovativeness, achievement motivation, decision making, risk orientation, co-coordinating ability, planning, information seeking behaviour, cosmopoliteness and self-confidence. And they developed an index to measure the entrepreneurial behaviour of dairy farmers. Mayer & Jencks [24] have indicated the profound influence of neighbouring peers on individuals throughout their life spans. Individual's entry to entrepreneurship (rely on theories of social norms and individual attitudes) posits that intentions precede entry and attitudes precede intentions [21].

1.1 Groups and Interactions

The value of a relationship is also defined by the social context around the relationship [6]. Marvin [23] defined a group as "two or more persons engaged in social interactions". In this situation each member of the group is aware of the other members and gets influenced by them and vice versa. Bass [3] called a collection of people as a group, if the existence of such collection was rewarding to its members. Woolcock and Narayan [38], and Padmaja and Bantilan [27] defined social capital as the "norms and networks that enable people to do collective actions". Goleman et al. were of the view that benefits of bonding social capital should be realized in intentional change by having a network of trusting, supportive, and mutually reinforcing relationships that facilitate one's efforts to change [17]. Social capital features in social organizations based on networks of interaction, and norms of reciprocity and trust facilitating coordination and cooperation for mutual benefit [29]. A review of social psychology literature shows that two types of group interactions exist in group processes, i.e. task, and social interactions, which coexist and are equally important to a group [8]. Conceptually, group functional activities of production overlap with group task interactions, whereas group functional activities of member support and group well-being overlap with group social interactions. The main characteristics of normative influence, such as group relationships, morality of care, seeking subjective virtue, group norms, preferences, maintaining harmony, etc., are essentially centered on relationships between group members or needs/ preferences of members [2]. Interpersonal relations are the important aspects of social life and it is easily achieved at group situations [15]. A group has been identified as a stage where members meet and negotiate personal interests [23]. And some members try to obtain power and status through groups and organizations. Padmaja and Batilan [27] were of the view that "behaviour of a person is governed by interactions and interrelations with other people". Pretty and Word [28] viewed factors such as age, education, gender, group size, heterogeneity of members, resourcefulness of members, and previous experience on collective actions, influence collective actions. However, Kruijssen et al. [22] reported that collective activities were always not possible in the resourceless farmer groups. Accordingly, lack of capital makes it difficult to maintain groups among poor farmers. Farmer groups reduce transaction cost, improve marketing facilities, reduce cost of cultivation, and facilitate other services [15]. Other benefits of farmer groups are; initiating and establishing culture of cooperation and coordination for their own benefits [24], conducting collective actions to overcome common problems [4], improving resource management strategies resulting in growth of local market and rural economy [4], developing networks among members and facilitate members to share ideas and find ways of mutual support. Farmers' groups have been found to help extension agents to improve member farmers' knowledge and practical skills of agricultural technologies [29]. Entrepreneurial action was found embedded in social interactions with other individuals [30]. Autio and Wennberg [1] revealed strong group-level effects on entrepreneurial behaviours. They found nearly 50% of the total variance in entrepreneurial behaviours resides between social groups, and not attributable to individual level characteristics. Further, the influence of group-level attitudes and social norms on individual level entrepreneurial behaviours was up to three times as strong as the influence of individual-level attitudes and norms. Above findings indicated that individual-level entrepreneurship to a greater degree is a reflection of group-level dispositions. It suggested the

dominant, individual-centric and dispositional explanations of entrepreneurship are therefore, at best, incomplete.

1.2 Network Linkages

Social context is important for deeper understanding of entrepreneurship activities and the nature of involvements [35]. Johannison [19] identified a high degree of network linkages and ties in two rural regions in Sweden, indicating that in some circumstances the network may lead to direct support in raising finance, inter trading and cooperative efforts. In a Sri Lankan study, Wijekoon, and Jayawardena [36] found positive significant relationships 'between the use of information sources and personal factors, viz. age, social participation, degree of exposure to mass media, innovativeness, and risk orientation'. They identified fellow farmers to be the most available information source. Johannisson [19] pointed out that the entrepreneur is a networking person and that the personal network is the vehicle by which the established entrepreneur exchanges information while he acquires resources from the environment. In the conduct of a collaborative task, there are varying levels of interaction among group members. It has been found that main characteristics of informational influence such as information sharing, factual and task messages, rational decision model, etc., are reflected in task activities of asking for and giving information, suggestions, and directions [2]. Social interactions refer to particular forms of externalities, in which the actions of a reference group affect an individual's preferences. The reference group depends on the context and is mostly it consists of an individual's family, neighbours, friends or peers in social interactions. Creatively accessing social networks to mobilize financial and other resources needed for business creation and expansion has been observed in many studies [16], [18]. This theory addresses the effects that individuals have on others who come into contact with them. Interpersonal attraction theory [7] posits that individuals with similar beliefs are attracted to each other, thus reinforcing a shared set of attitudes and behaviours. Both these theories predict that individuals will have attitudes and behaviours similar to those with whom they interact. Identification of social capital opens a broader view towards social structures and processes, social values and norms. Significant differences have been found in East Asia in how social capital works in China and Vietnam, than in Japan or Korea [26]. Padmaja and Bantilan [27] have identified that, behaviour of a person is governed by interactions and interrelations with other people. The different ways how bridging networks contribute to entrepreneurial activities has been confirmed in empirical findings [5].

1.3 Scope of the Study

Empirical findings suggest the influence of group interactions in the entrepreneurial behaviour of farmers. However, there is a dearth of studies in examining the above using comparative groups of vegetable farmers practicing one season, and two seasons per year respectively. This study was focused on examining *'whether there is an impact from group interactions to improve entrepreneurial behaviour of farmers? and, what are the resulting effects?.'* General objective of the study was to examine the impact of group behaviour on the entrepreneurial behaviour of vegetable farmers. Specific objectives of the study were to identify, and assess the major entrepreneurial behavioural characteristics of farmers, and to examine the relationship between the group interactions and entrepreneurial behaviour of farmers.

2. Methodology

The epistemological approach for this research study was positivism. Accordingly the underline methodological aim was exposure. The research design consisted of two case studies, using two samples of vegetable farmers practicing respectively a single season, and two seasons (throughout the year) annually. The choice of above two types of farmer organisations was meant to capture the intricacies that farmers get exposed in farming continuously, and only during a defined period (single season) per year. These conditions are numerous, vary and involve differing socio-cultural connotations, especially in an Asian context. Accordingly, outcome of this study was focused on testing existing theory in different background conditions. Entrepreneurship practitioners, policymakers, and academics alike have shown a growing interest in the contextual factors in which entrepreneurial activities take place [33].

2.1 Operationalization of Research

Sri Lanka was selected for the study due to the availability of comparative groups of vegetable farmers practicing only a single season, and both seasons per year within geographically close by locations. Sri Lanka has 22 administrative districts. Matale district has been among the top 4 districts producing high amount of vegetables in Sri Lanka. Farmer organizations of Matale district in Sri Lanka was selected as the sampling frame of the study. Matale has over 220 farmer Organizations. An exploratory research to identify the farmer groups, and activities was conducted with the participation of community leaders and government Agricultural Instructors (AIs'). Accordingly, Naula, and Dambulla Divisional Secretariat (DS) areas were selected from the Matale district. Naula DS area consisted of farmer organisations growing vegetables throughout the year, namely during the seasons of Yala and Maha. However, majority of farmers in Dambulla DS area cultivated vegetables only during the Yala season. Two farmer organizations were selected from the two DS areas. Sinha farmer Organization from Naula DS area and Mahasen farmer Organization from Dambulla DS area were selected for the study. Among the 75 farmer organizations in Naula DS area, Sinha farmer organization was among the most active farmer organizations, as per the reports of AIs'. Similarly, among the 90 farmer organizations in Dambulla DS area, Mahasen farmer organization was among the most successful. Stratified random sampling was used to select a sample of 60 vegetable farmers, 30 each from these two farmer organizations. Farming experience, Age, and continuity in farming were identified as the major criteria for the selection of farmer organisations.

2.2 Research Instruments and Data Analysis

Primary data were collected through a questionnaire survey, which was followed by informal discussions and key informant discussions. The entrepreneurial behaviour scale developed by Chaudhari et al. [9], was incorporated into the questionnaire to assess the entrepreneurial behaviour of farmers. Assessment of group interactions was based on the five statements (covering the differing aspects) used for assessing group interactions introduced by Kaplan and Miller [20] for research on group decision making. It included decision making activities in different stages. It had a Likert scale for answers in the range of 1 (Not at all) to 5 (Very high) for each statement. Data were analysed using the Statistical Package for Social Sciences. Descriptive data were presented using tabular analysis and relationships were tested through correlation tests, and using 2-independent sample t-tests (Mann Whitney Test) for non-parametric data.

3. Findings

3.1 Group Interactions among Respondents

Group interactions of farmers were assessed by measuring their involvement in group activities of selected eight practices in vegetable cultivation. The eight identified activities were namely; seasonal planning, crop selection, land preparation and field planting, irrigation water distribution, controlling of pests and diseases, participating in training programmes, harvesting, and selling. Group interactions of each practice were measured using five statements. These five statements were measured using a 5 point Likert scale, and responses are depicted in table 1. Table 2 depicts the categorization of group interactions of practices as low, moderate, and high.

Tab. 1: Scoring pattern of group interactions

Answer	Score	Maximum score for a single practice
Very high	5	25
High	4	20
Low	3	15
Very low	2	10
Not at all	1	5

Source: Authors' classification

Tab. 2: Categorization of group interactions by their scores

Group interactions category	Score
Low	≤15
Moderate	16–20
High	≥21

Source: Authors' classification

3.1.1 Group Interactions in Seasonal Planning, and Selection of Crops

In Mahasen farmer group, interactions in seasonal planning were high. They had a group norm that 80% of the members of the farmer organization should participate at the seasonal planning. Otherwise they have to pay a fine. But in Sinha farmer group 86.7% of farmers had responded that their group interactions were at a moderate level. They had no group norm for involvement of group members like in Mahasen Farmer Organization. Forty eight percent of the respondents had moderate group interactions in crop selection. In Mahasen farmer group, 60% perceived a high level of group interactions in crop selection. But in Sinha farmer group, there were no high group interactions in crop selection. Mahasen farmer group had a pre seasonal meeting to decide crops for the season, and 80% of members' participation was considered a norm. Majority of the members participated to the meeting and involved in crop selection. In Sinha farmer group, there was no such norm for members' participation for the pre seasonal meeting. Majority of the Sinha Group farmers had decided suitable crops for season individually, with low group interactions.

3.1.2 Group Interactions in Land Preparation, Field Planting, and Irrigation Water Distribution

Eighty two percent of farmers perceived group interactions in land preparation and field planting to be low. In Sinha farmer group all the farmers perceived giving information, sharing information among group members, and helping each other to be at a low level. In Mahasen farmer group also majority of the farmers (63.3%) perceived group interactions to be low. This could also be due to non-practicing of the traditional labour sharing system by many farmers. They tried to manage farming activities by themselves using hired labour. Forty percent of the respondents of Mahasen farmer group, and the entire Sinha farmer group perceived interactions in irrigation water distribution to be at a low level. Though the entire membership should get involved in deciding the dates, and duration of irrigation water distribution, it has been decided by the committee members of farmer groups.

3.1.3 Group Interactions in Controlling of Pests and Diseases in Vegetable Cultivation, and Training Programmes

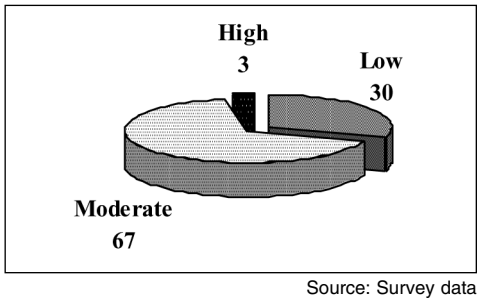
Eighty five percent of the total respondents found group interactions in controlling of pests and diseases at a low level. Whenever pest attacks or diseases occurred, farmers had used to get advices from agrochemical sellers and had used chemicals as remedy. Sharing of information, getting advices from subject matter specialists, and adhering to the control measures in an outbreak as a group, were at a low level. Deciding training programmes, sharing knowledge from training programmes, and selecting members for training programmes based on their preferences were low among overall respondents, as 60% of them perceived so. In Mahasen farmer group, interactions were moderate in participating to training programmes, and they had participated to at least five training programmes per year. On the contrary, members of Sinha farmer group had participated to only one or two training programmes per year.

3.1.4 Group Interactions in Harvesting of Crop and Selling

Sharing information of new practices among members, deciding the harvesting period as a group, and sharing of labour at harvesting were low among farmers. Due to time limitations most of the farmers were reluctant to work as a group, and they shared harvesting activities with family members, and hired labour. Sharing information about new markets, prices, place of selling and bargaining for a reasonable price for

their products as a group were at low level in both farmer groups. Almost 95% of total respondents perceived that group interactions were low in selling of produce. They perceived difficulties in selling products in Dambulla Dedicated Economic Centre as a group due to the influence of middlemen. Majority of the farmers attempted to sell their products for a higher price individually. Overall group interactions among farmers were at a moderate level. As shown below in Figure 1, 67% of the farmers perceived their group interactions in vegetable cultivation as moderate.

Fig. 1: Percentage distribution of respondents by group interactions



Source: Survey data

3.2 Task Interactions and Social Interactions of the Respondents

Task interaction among farmers was at a moderate level. They included routine tasks that need the support of fellow farmers during different stages in farming. Seventy two percent of the farmers responded that, sharing of information; suggestions, directions, and rational decision making of the group were at moderate levels. Social task interaction of the respondents was at moderate level. Majority (55%) responded that, conformity to norms, consideration about preferences of group members, and morality of care of the group were at moderate levels. Mahasen group had 78 members, in comparison to Sinha farmer group's 172 members.

3.3 Entrepreneurial Behaviour Characteristics of Respondents

Respondents were assessed of the following ten characteristics that were identified in their entrepreneurial behaviour.

i.) Planning ability of the respondents: Planning ability of the respondents was measured by using five statements, each of them were allocated scores from 1 to 5. Total scores below 10 were categorized as low; 10–15 scores were categorized as moderate, and scores over 15 was categorized as high. Almost 70% of the respondents had planned their cultivation activities well. In Mahasen farmer group planning ability of the respondents was higher than at Sinha farmer group. Farmers in the Mahasen farmer group had adopting the seasonal plan. And those who could not follow that had to pay a fine. But in Sinha farmer group there was no such rule.

ii.) Coordinating ability of the respondents: Coordinating ability of the farmers was measured by using four statements allocating scores from 1 to 5. Total scores below 8 were categorized as low, scores from 8–12 were categorized as moderate, and scores over 12 were categorized as high. Thirty seven percent of the respondents had a high coordinating ability. They decided the required amount of land, capital, and inputs for their cultivation well in advance. But 31.4% of farmers had decided them just at the moment, and the rest (31.6%) had never planned at all.

iii.) Information seeking behaviour of the respondents: Information seeking behaviour of the farmers was measured by using 14 information sources and their frequency of usage by farmers. Frequencies were given scores from 1 to 3. Total scores below 18, were categorized as low, 18 and 28 as moderate and scores over 28 was categorized as high information seeking behaviour. About 85% of respondents had a moderate information seeking behaviour. Majority of the farmers had not used television, radio, newspapers, telephone, and NGO officers to get information frequently. Most of them had used family members, friends, relatives, agriculture instructors (AI's), agriculture research and production assistants (ARPA's) frequently to get information. There was not a single farmer having a low level of information seeking behaviour.

iv.) Innovativeness of the respondents: Innovativeness of the respondents was measured by using five practices which were

introduced recently for vegetable cultivation and were allocated scores from 0 to 3, based on the number of years they had used them. Total scores below 5 were categorized as low, scores from 6 and 10 were categorized as moderate, and scores over 10 were categorized as high. Seventy five percent of the respondents had a moderate level of innovativeness. Most of them had never searched for new markets. However, they used plastic trays to transport their products. Mahasen farmer group had 30% of framers with a high level of innovativeness. Most of them used Neem based extractors as pesticides, improved seeds, and sprayer irrigation methods for cultivations.

v.) Risk orientation of the respondents: Risk orientation of the respondents was measured by using four statements, assigning scores from 1 to 5. Total scores of below 8 were categorized as low, scores 8 and 12 were categorized as moderate, and scores over 12 were categorized as high. There was not much difference in the risk orientation between the two farmer groups. Sixty three percent of respondents had a moderate level of risk orientation. Majority (62%) considered vegetable cultivation as risky and they opted to try new practices only after seeing successful results of other farmers.

vi.) Decision making ability of the respondents: Decision making ability of the respondents was measured using eight practices and allocating scores (1 to 3) based on approach to taking decisions. Total scores below 13 were categorized as low, 13 to 19 as moderate, and over 19 were categorized as high. Ninety percent of the farmers had high level of decision making ability. Most of the farmers decided on their cultivations through their own experiences. Majority of farmers were not thoughtful of practicing sprinkler or drip irrigation, and crop insurance.

vii.) Opportunity seeking behaviour of the respondents: Opportunity seeking behaviour of the respondents was measured by using five situations farmers could create opportunities and their making use of them. Scores of 1 and 2 were allocated accordingly. Total scores below 7 were categorized as low, scores between 7 and 9 were categorized as moderate, and scores over 9 were categorized as high. About 52% of respondents had a high level of opportunity seeking behaviour. Access to subsidies and credit facilities through farmer organizations, participating to training programmes, and use of information sources to obtain price details were at a moderate level. Sixty percent of the members of Mahasen farmer group had a high opportunity seeking behaviour. They had many opportunities than Sinha farmer group viz; conducting training programmes, credit facilities, and information system of Dialog (mobile) Telecom Company.

viii.) Achievement motivation of the respondents: Achievement motivation of the respondents was measured by using ten statements awarding scores of 1 to 2. Total scores below 7 were categorized as low, scores between 7 and 8 were categorized as moderate, and scores over 8 were categorized as high. About 52% of total respondents had a high achievement motivation. Motivation levels to earn higher profits, to be a well-known farmer, and to accomplish tasks better than others were at moderate levels. Majority (60%) in Mahasen group had a high level of achievement motivation. They focused higher profits, and were ambitious in farming profession.

ix.) Self-confidence of the respondents: Self-confidence of the respondents was measured by using five statements, allocating scores of 1 to 2. Total scores below 8 were categorized as low, scores between 8 and 10 were categorized as moderate, and scores over 10 were categorized as high. About 47% of the respondents had a moderate level of self-confidence. Majority lacked confidence in profit making through vegetable cultivation, and most of them relied on others in carrying out farming activities. They did not take the initiative in crop selection, deciding time for land preparation, planting, harvesting and selling etc. Farmers perceived they were moderate in adapting to new situations, concentrating on a task, and saying the right opinion at the right time.

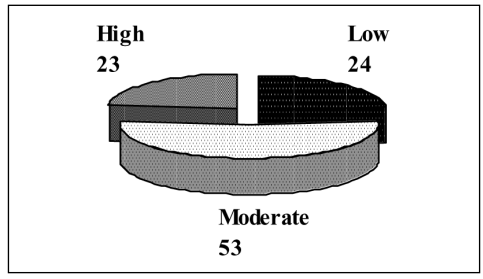
x.) Cosmopolitanisms of the respondents: Cosmopolitanisms of the respondents were measured by using five statements of their perception, allocating scores from 1 to 3. Total scores below 10 were categorized as low,

scores between 10 and 12 were categorized as moderate, and scores over 12 were categorized as high. Forty five percent of the farmers had a high level of cosmopolitans. Collection of information of successful farmers from outside of village, getting information through mass media, visiting AIs and other governmental officials, gathering of recent information through agricultural literature and agricultural exhibitions was at a moderate level.

3.4 Entrepreneurial Behaviour of the Respondents

Based on the values obtained from the entrepreneurial behaviour (Index) three categories were identified. Index value below 65 was categorized as low, 65 and 75 as moderate, and over 75 was categorized as high. The overall entrepreneurial behaviour of the respondents was at a moderate level (mean value of 71.186, standard deviation of 0.17). Among the ten entrepreneurial characteristics planning ability and decision making ability were at a high level (mean values were 2.7 and 2.9 respectively). Other characteristics were at a moderate level. As shown in Figure 2, only 23% of the respondents had a high level of entrepreneurial behaviour.

Fig. 2: Distribution (as a %) of respondents' entrepreneurial behaviour



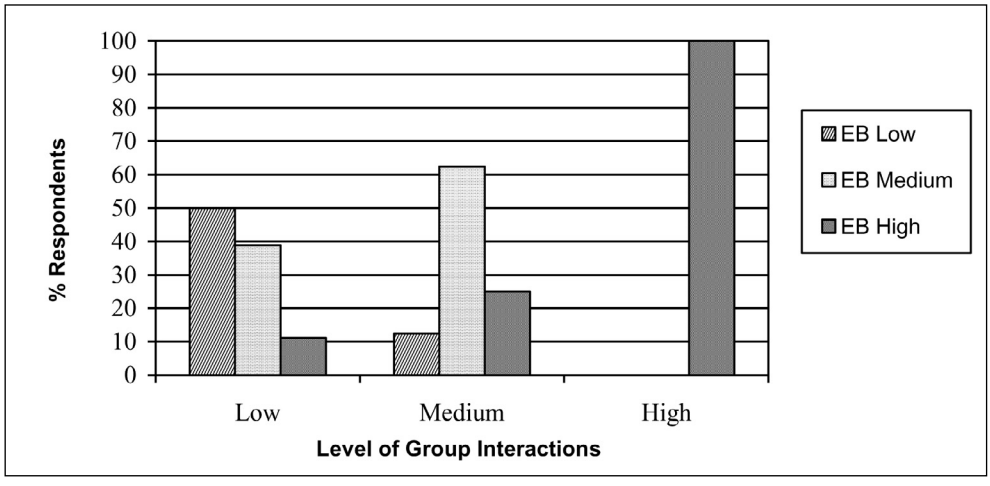
Source: Survey data

3.4.1 Relationship between Group Interactions and Entrepreneurial Behaviour

A positive significant relationship was reported between the group interactions of farmers and their entrepreneurial behaviour (r=0.507, p=0.001, significant at 0.01 level).

Fig. 3 indicates respondents' with high group interactions reporting high entrepreneurial behaviour. Among those reporting low group interactions, 50% of them had low entrepreneurial behaviour.

Fig. 3: Respondents' group interactions and entrepreneurial behaviour



Source: Survey data

3.4.2 Difference in Group Interactions of the Two Farmer Groups

The 2-independent sample t-test (Mann Whitney Test) recorded a significant difference of group interactions (p=0.007, significant at 0.01 level) between Mahasen and Sinha farmer groups. All the respondents who recorded high group interactions belonged to Mahasen farmer group. There were no respondents reporting high group interactions in Sinha farmer group. Respondents of Mahasen farmer group had high level of group interactions in seasonal planning, selecting of crops, and irrigation water distribution. Mahasen farmer group was highly concerned of group norms and rules such as, 80% of members' participation for decision making, focus on 80% of members' agreements for a decision, and fining of deviations from group's rules and regulations. Mahasen farmer group had monthly meetings, whilst Sinha farmer group had only seasonal meetings held in every 6 months. Mahasen farmer group had conducted many societal beneficial campaigns in village. This increased the cohesiveness among members. Maintaining and rebuilding of irrigation cannels, reforestation was practiced by Mahasen farmer group.

3.4.3 Difference in Entrepreneurial Behaviour of the Two Farmer Groups

According to the 2-independent sample t-test (Mann Whitney Test) there was a significant difference in entrepreneurial behaviour (p=0.007, significant at 0.01 level) between the two farmer groups. Eighty six percent of the respondents who had high entrepreneurial behaviour belonged to Mahasen farmer group, and the corresponding figure was 14% in Sinha farmer group. In Mahasen farmer group planning ability, coordination ability, and innovativeness of farmers were at a higher level than Sinha farmer group.

Conclusions, Limitations and Further Research

Findings of the study indicated the positive impact of group interactions on entrepreneurial behaviour of the farmers in farmer groups. Group interactions of farmers significantly correlated with their entrepreneurial behavioural patterns. Group interactions of farmers were moderate and entrepreneurial behaviour of the farmers was not prominent in vegetable cultivation. Decision making ability and planning ability of farmers were at a high level. Risk orientation of farmers' was fairly low. Farmers' entrepreneurial behaviour enhanced with socio-economic status and social participation. Group interactions of the farmers were high in seasonal planning, and selecting of crops. In selling, group interactions were very low. Relatively small proportionate of members in the more entrepreneurial Sinha farmer group (in comparison to the Mahasen group) indicates the effectiveness of relatively smaller groups. Attitudes of the farmers on group interactions can be improved through awareness programmes on mutual benefits, team building activities, and workshops. Group leaders could encourage the members to value healthy interpersonal relationships with the help of advisers of choice. Mechanisms to improve small group formation activities through Farmer Organizations could be focused.

Study was limited only to two groups of farmers totalling to 60 members. Farmers' behaviours were also assessed only based on their perceptions. The static nature of data is a serious weakness of contemporary management research. This study also falls into this category as the data collection (interviewing and surveying) was carried out at a particular point in time during the year 2012. A longitudinal research with higher numbers of farmer groups representation, incorporating more objective data (i.e. profits, and profitability of farmers, times spent for farming, along with the feedback of key stakeholders) is bound to provide more insightful facts.

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References

[1] AUTIO, E. WENNBERG, K. *Social Attitudes and the Transition to Entrepreneurship*. Summer Conference 2010, Imperial College, London Business School, 2010. 35 p. ISBN 9812708553.
[2] BALES, R.F. *Interaction process analysis: A method for the study of small groups.* Cambridge: Addison – Wesley, 1950. 228 p.

[3] BASS, M. *Leadership, Psychology and Organizational Behavior*. Harper and Row, 1960. 548 p. ISBN 0837189608.

[4] BEDDINGTON, A. Organizations and Intensifications: Campesino Federations, Rural livelihoods and agricultural technology in the Ands and Amazon. *World Development*. 1996, Vol. 24, Iss. 7, pp 1161-1177. ISSN 0305-750X.

[5] BERGGREN, B., SILVER, L. The effect of bridging networks on entrepreneurial activity; The rational-legal framework and embededness in local social capital networks. *Journal of Enterprising Communities: People and Places in the Global Economy*. 2009, Vol. 3, No. 2, pp. 125-137. ISSN 1750-6204. DOI: dx.doi.org/10.1108/17506200910960833.

[6] BURT, R.S. *Brokerage and Closure: An Introduction to Social Capital*. New York: Oxford University Press, 2005. ISBN 0199249156.

[7] BYRNE, D., CLORE Jr., G.L., WORCHEL, P. Effect of economic similarity on interpersonal attraction. *Journal of Personality and Social Psychology*. 1966, Vol. 4, Iss. 2, pp. 220-224. ISSN 0022-3514.

[8] CARTWRIGHT, D., ZANDER, A. (Eds.). *Group Dynamics. Research and Theory*. Harper & Row, 1968. 580 p.

[9] CHAUDHARI, R.R., et al. A Scale for Measurement of Entrepreneurial Behavior of Dairy Farmers. *Karnataka Journal of Agricultural Science.* 2007, Vol. 20, Iss. 4. pp. 792-796. ISSN 1049-7323.

[10] CHELL, E., HAWORTH, J., BREARLY, S. *The entrepreneurial personality: Concepts, cases and categories.* London: Routledge, 1991. ISBN 0866381295.

[11] CHOUPKOVA, J., BJORNSKOV, C. Counting on social capital when easing agricultural credit constraints. *Journal of Microfinance*. 2002, Vol. 4, No. 1, pp. 1736. ISSN 1527-4314.

[12] CLEMENCE, R.V. (Ed.). *Essays on Entrepreneurship, Innovations, Business Cycles and the Evolution of the Capitalism, Joseph A. Schumpeter.* New Brunswick, New Jersey: Transaction Publishers, 2009. ISBN 978-0887387647.

[13] DRUCKER, P.F. The Practice of Entrepreneurship. *Innovation and Entrepreneurship Practice and Principles*. New York: Harper and Row, 1985. pp. 141-188. ISBN 0060851139.

[14] FAROOK, M.R.M. *Traditional and New Entrepreneurs in Sri Lanka*. *PIM conference of Management Studies*. Sri Lanka: University of Sri Jayewardanapura, 1992. ISBN 9559054104.

[15] FESTINGER, L. Group Attraction and Membership. In: CARTWRIGHT, D., ZANDER, A. (Eds.). *Group Dynamics. Research and Theory*. Evaston, Row, Peterson and Company, 1953. ISBN 1584151226.

[16] GRANOVATTER, M. The Strength of Weak Ties. *American Journal of Sociology*. 1973, Vol. 78, Iss. 6, pp. 1360-1380. ISSN 0736-3761.

[17] GOLEMAN, D., BOYATZIS, R., MCKEE, A. *Primal Leadership: Realizing the Power of Emotional Intelligence*. Boston (MA): Harvard Business School Press, 2002. ISBN 1422168034.

[18] GRANOVETTER, M. The Impact of Social Structure on Economic Outcomes. *Journal of Economic Perspectives.* 2005, Vol. 19, No. 1, pp. 33-50. ISSN 0895-3309. DOI: dx.doi.org/10.1257/0895330053147958.

[19] JOHANNISSON, B. Beyond Process and Structure: Social Exchange Networks. *International Studies of Management and Organizations.* 1987, Vol. 17, No. 1, pp. 3-23. ISSN 0020-8825.

[20] KAPLAN, M.F., MILLER, C. Group decision making and normative versus informational influence: Effects of type of issue and assigned decision rule. *Journal of Personality and Social Psychology*. 1987, Vol. 53, No. 2, pp. 306-313. ISSN 2230-7850. DOI: dx.doi.org/10.1037/0022-3514.53.2.306.

[21] KRUEGER, N.F., REILLY, M.D., CARSRUD, A.L. Competing models of entrepreneurial intentions. *Journal of Business Venturing*. 2000, Vol. 15, No. 5-6, pp. 411-432. ISSN 0808-4653. DOI: dx.doi.org/10.1016/S0883-9026(98)00033-0.

[22] KRUIJESEN, F., KEIZER, M., GIULIANI, A. *Collective actions for small producers of agricultural biodiversity products. Research Workshop on Collective action and market for smallholders, Oct.2-5, 2006*. Colombia: Cali, 2006. ISBN 521371015.

[23] MARVIN, E.S. An Overview of Small Group Behavior. In: THIBAUT, J.W., SPENCE, J.T., CARSON, R.C. *Contemporary Topics in Social Psychology.* General Learning Press, 1976. 477 p. ISBN 0382250788.

[24] MAYER, S.E., JENCKS, C. Growing Up in Poor Neighborhoods: How Much Does It Matter? *Science.* 1989, Vol. 243, No. 4897, pp. 1441-1445. ISSN 0036-8075. DOI: dx.doi.org/10.1126/science.243.4897.1441.

[25] MURALI, K., JAMTANI, A. Entrepreneurial Characteristics of Floricultural Farmers. *Indian Journal of Extension Education*. 2003, Vol. 34, No. 1. ISSN 0972-2181.

[26] ORDÓÑEZ DE PABLOS, P. Western and eastern views on social networks. *The Learning Organization*. 2005, Vol. 12, No. 5, pp. 436-56. ISSN 0969-6474.
[27] PADMAJA, R., BANTILAN, C. *Empowerment through Technology: Gender dimensions of social capital build up in Maharashtra*. India, ICRISAT, 2005. International Research Workshop on Gender and Collective Action. ISBN 9789812304032.
[28] PRETTY, T., WORD, H. Social Capital and Environment. *World Development*. 2001, Vol. 29, Iss. 2, pp. 209-227. ISSN 0305-750X.
[29] PUTNAM, R. Bowling Alone: America's Declining Social Capital. *Journal of Democracy*. 1995, Vol. 6, Iss. 1, pp. 65-78. ISSN 1045-5736.
[30] SARASON, Y., DEAN, T., DILLARD, J.F. Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*. 2006, Vol. 21, Iss. 3, pp. 286-305. ISSN 0883-9026.
[31] SCHUMPETER, J.A. *Theory of Economic Development*. Cambridge (MA): Harvard University Press, 1949. ISBN 978-0674879904.
[32] SOLANKI, K.D., SONI, M.C. Entrepreneurial Behavior of Potato Growers. *Indian Journal of Extension Education*. 2004, Vol. 40, No. 3. ISSN 0972-2181.
[33] THORNTON, P.H., RIBEIRO-SORIANO, D., URBANO, D. Socio-cultural factors and entrepreneurial activity: an overview. *International Small Business Journal*. 2011, Vol. 29, No. 2, pp. 105-118. ISSN 0266-2426.
[34] *Webster's Seventh New Collegiate Dictionary*. Springfield (MA): G. C. Merriam, 1975.
[35] WELTER, F. Contextualizing entrepreneurship – conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*. 2011, Vol. 35, Iss. 1, pp. 165-184. ISSN 0037-80211. DOI: dx.doi.org/10.1111/j.1540-6520.2010.00427.x.
[36] WIJEKOON, W M N D., JAYAWARDENA, L N A C. Utilization of Sources of Information for decision making of Farmers – A Case Study. *Peradeniya University Annual Research Sessions-2010*. Sri Lanka: University of Peradeniya, 2010. ISBN 978-9555891448.
[37] WOO, C.Y., DUNKELBERG, W.C., COOPER, A.C. Entrepreneurial typologies: definitions and implications. In: *Frontiers of Entrepreneurship Research*. Babson Park (MA): The Arthur M. Blank Center for Entrepreneurship Babson College, 1988. ISBN 0-910897-09-3.
[38] WOOLCOCK, M., NARAYAN, D. Social Capital: Implication for Development Theory Research and Policy. *The World Bank Research Observer*. 2000, Vol. 15, Iss. 2, pp. 225-249. ISSN 1238-1683.

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Abstract

IMPACT OF GROUP INTERACTIONS ON FARMERS' ENTREPRENEURIAL BEHAVIOUR

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Group interactions form an important component among the many factors influencing the entrepreneurial behaviour of farmers. Understanding group interactions provides insights to foster entrepreneurial activities. Matale district, which is among the top 4 districts producing high amount of vegetables in the Sri Lanka was selected for the study. Two successful farmer organizations, one of them farming in both seasons (throughout the year), and the other farming only a single season per year, were selected for the study. Overall objective of the study was to examine the impact of group interactions on entrepreneurial behaviour of vegetable farmers. Stratified random sampling was used to select an overall sample of 60 vegetable farmers, having two samples consisting of 30 each from the two farmer organizations. Descriptive and inferential analyses were conducted using the SPSS software package. Results indicated a significant relationship between the group interactions and entrepreneurial behaviour of farmers. Study revealed effective entrepreneurial behaviour involving high planning ability, and decision making ability. Majority of the farmers were at a moderate level of innovativeness, risk orientation, coordinating ability, opportunity seeking behaviour, self-confidence, achievement motivation, and cosmopolitanism. Group interactions were moderate at seasonal planning, and in selecting of crops. Group interactions were low in land preparation, pest and disease controlling, harvesting, irrigation water distribution, participating in training programmes, and selling. Entrepreneurial behaviour of farmers has enhanced with group interactions. The two farmer groups had significant differences in group interactions and entrepreneurial behaviour due to group characteristics. It is recommended to improve group interactions through awareness programmes, and small group formation activities.

Key Words: *Entrepreneurial behaviour, group interactions, farmers.*

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