The Influence of Social Capital on Entrepreneurial Opportunity Recognition Behaviour

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ABSTRACT

The role of micro, small and medium enterprises in a developing nation's economy is indeed significant. An entrepreneur is the lifeline of small enterprises. Opportunity recognition is a central concept in Entrepreneurship literature. Though researchers have tried to explore the influencers of Opportunity Recognition Behaviour, there is no conclusive answer yet. The researchers are interested in understanding the extent of influence of social capital on Opportunity Recognition Behaviour in Indian environment. This study explores individually the three dimensions of social capital and its influence on the five components of Opportunity Recognition Behaviour of an entrepreneur. 117 Indian entrepreneurs of micro, small and medium enterprises (MSMEs) which are engaged in Information Technology and Information Technology Enabled Services (IT& ITES) and who are members of well known professional organisations, formal or informal business forums are studied to meet the research objectives. The results reveal that the structural dimension of social capital is most important in influencing knowledge acquisition behaviour of opportunity recognition.

Keywords: Opportunity recognition behaviour, social capital, entrepreneur, Indian IT & ITES industry

INTRODUCTION

India is the tenth largest economy in nominal GDP and service sector contributes more than 57.5% to the nation's GDP, according to Economic Survey, 2009-2010. Small and Medium Enterprises (SME) play a vital role in the growth of Indian economy by contributing 45% of the industrial output, 40% of exports, 42 million

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in employment, create one million jobs every year and produces more than 8000 quality products for the Indian and International markets and SME's Contribution towards GDP in 2009 was 17% which is expected to increase to 22% by 2012 as reported by SME Chamber of India (2010). As a result, MSMEs today are exposed to greater opportunities for expansion and diversification across the sectors.

Though Indian market is growing rapidly and Indian MSMEs are making remarkable progress in industries like Manufacturing, Precision Engineering, Food Processing, Pharmaceuticals, Textile & Garments, Retail, Agro and Service sectors, Information Technology and Information Technology Enabled Services (IT&ITES) Industry has been the fountainhead. According to Som Mittal (2009), President of NASSCOM, IT&ITES industry has the potential to transform India by the year 2020 and will also play a major role in the development of the country's key sectors like education, healthcare, infrastructure, citizen services and financial inclusion. In the last ten years this sunshine industry in India has grown at an average annual rate of 30%. According to NASSCOM – McKinsey report (2009), Indian IT & ITES Industry contributes 7.5% to the total GDP of India. Today's knowledge based economy is fertile ground for entrepreneurs, in India. Liberalisation and the information technology boom in 1990s have contributed much to the birth and growth of entrepreneurs, predominantly in IT & ITES industry.

Entrepreneurship has gained a lot of importance today. The one breed that is going to take India to its rightful place in the comity of nations is entrepreneurs. Researchers try to understand the phenomenon behind some entrepreneurs discovering right opportunities while others do not. But, organisations compete in a constantly changing dynamic environment. Organisations can reap substantial benefits with entrepreneurs adept at recognising opportunities (Grégoire, Barr, and Shepherd, 2010). Recognition, evaluation and exploitation of opportunity form the crux of entrepreneurship (Bygrave, 1993; Shane and Venkataraman, 2000). Kirzner (1979, 1981, 1997) states that entrepreneurship is all about recognising, exploiting market and deciphering them as opportunities. The success or otherwise of an enterprise depends on the entrepreneur's heightened ability and acute awareness for recognising business opportunities. But how does he recognise an opportunity amidst myriad choices? What are the factors contributing to a good decision or otherwise? It has really been intriguing for researchers, academicians and others.

Opportunity recognition is relevant and valuable within established organisations and in the process of creating new ventures. However, 'for an opportunity to be meaningful, it must be recognized, discovered, identified, or created and thus scholars have also debated how to define the processes related to opportunities' (Hansen, D. J., Shrader, R., and Monllor, J., 2011). Though this is evident from a critical mass of literature around opportunity recognition (Gaglio and Katz, 2001), research on opportunity recognition is still in nascent stage. The views of Chandler, Gaylen, DeTienne and Lyon (2003) also support this view on infancy.

Ardichvili and Cardozo (2000) agree that opportunity recognition is an important element in entrepreneurship but is still in its infancy. Hence, the researchers are interested in contributing to the knowledge of Opportunity Recognition Behaviour.

Chell (2000) proclaims that it is the opportunistic behaviour of an individual to whom the attribution of entrepreneur is made. Entrepreneurs process opportunity-related information to decide whether to accept or reject potential business opportunities (Pech and Cameron, 2006). Opportunity Recognition Behaviour includes knowledge acquisition, competitive scanning, proactive searching, innovative behaviour and collective action (Miller 1987). Other researchers have also contributed in the same lines to the existing literature (such as Teach, Scwartz and Tarpley (1989); Christensen and Peterson, 1990; Vesper, 1991; Martello, 1994; Krackhardt, 1995; Sigrist, 1999; Vesa Puhakka, 2006). This study adopts the five components of Opportunity Recognition Behaviour towards studying the research objectives.

Research has tried to explore the factors contributing to the preparedness of an entrepreneur's mind that helps in opportunity recognition. Studies reveal that an entrepreneur's personality and cognitive biases are responsible for opportunity recognition (Shaver and Scott, 1991; Das and Teng, 1997; Busenitz and Barney, 1997; Kahneman and Tversky (1979); Keh et al. (2002). The extant literature recognises that network ties, activeness and alertness, and prior knowledge are related to how entrepreneurs recognize new opportunities (Kontinen, T., and Ojala, A., 2011). Though there is not a wealth of literature, research looks into social capital and network relations as important in identifying and evaluating opportunities (Aldrich and Zimmer, 1986; Ardichvili and Cardozo, 2000; Elfring and Hulsink, 2003). To quote Baron and Markman (2003), 'Social Capital refers to the actual and potential resources individuals obtain from knowing others, being part of a social network with them, or merely from being known to them and having a good reputation.' Entrepreneurs gain a lot of visibility, information, influence and co-operation because of strong social capital. Entrepreneurs progress in their opportunity recognition process with lot of encouragement and support from friends or family members (Davidsson and Honig, 2003).

Increasingly social capital is now perceived multidimensional but earlier studies have proposed it as a unidimensional concept (Burt, 1992; Walker et al., 1997). A well-known theory proposed by Nahapiet and Ghoshal's (1998) construes social capital consisting of three dimensions, namely, structural, relational and cognitive. Subsequent research to cite a few, by Adler & Kwon (2000), Davidsson and Honig (2003), Delmar and Shane, (2004) strengthens this three-dimensional view of social capital. This study also adopts this three-dimensional concept of social capital in pursuit of the research objectives. The extant literature reveals no conspicuous study about social capital influencing Opportunity Recognition Behaviour in Indian context and therefore, the interest of the researchers.

REVIEW OF LITERATURE AND HYPOTHESES

The overall objective of this research is to understand how social capital influences Opportunity Recognition Behaviour. The researchers state their hypotheses with literature support to show the influence of the three dimensions of social capital on the five components of Opportunity Recognition Behaviour.

As stated earlier, this research adopts the three dimensions of social capital to study its influence on Opportunity Recognition Behaviour. Social Capital is essential for entrepreneurial opportunity recognition to have access to resources, exchange information and get others opinion (Singh et al, 1999). Coleman (1994) also emphasises in his work 'Social capital is defined by its function. It is not a single entity, but a variety of different entities, having two characteristics in common: they all consist of some aspect of a social structure, and they facilitate certain actions of individuals who are within the structure.' Individuals' access to external knowledge through the social networks in which they participate is found to be fundamental for developing the capacity to recognize new business opportunities (Ramos R., et al., 2010). The literature has also investigated in depth the relationship between social networks and opportunity recognition (MA Rong, Huang Yen-Chih and Shenkar Oded, 2011).

Structural dimension of social capital refers to the network structure's overall pattern of connections between those involved in it (Nahapiet & Ghoshal, 1998). It indicates the amount of social interactions of an entrepreneur. This dimension includes existence and absence of direct as well as indirect ties between an entrepreneur and others (Burt, 1992; Nahapiet & Ghoshal, 1998).

Relational Dimension refers to factors such as closeness of relationships, amount of communication between networks, and the nature of the personal relationship that develops between specific people (Nahapiet & Ghoshal, 1998). It includes trust, norms and sanctions, obligations and expectations and identification. This will be revealed by the strength of ties an entrepreneur has. This is contributed by the amount of time spent, emotional intensity, intimacy, and reciprocal services (Granovetter, 1985). Being embedded in a network gives rise to a form of trust known as relational trust (Nahapiet & Ghoshal, 1998). An exploratory study of Turkish entrepreneurs suggests that the structural and relational dimensions of social capital influence the entrepreneurs decision of exit and re-entry which is nothing but opportunity recognition (Kocak, A., Morris, M., Buttar, H., Cifci, S., 2010).

Cognitive dimension of social capital refers to 'shared representations, interpretations, and systems of meaning among parties' (Nahapiet & Ghoshal, 1998). This dimension reveals the extent to which the members of the network trust each other, how well they support and understand each other and how much they believe each other's availability in case of problems.

As mentioned earlier, this study considers Opportunity Recognition Behaviour as five sub processes: knowledge acquisition, competitive scanning, proactive searching, innovative behaviour and collective action.

Knowledge acquisition is the process of understanding the decision-making situation by gathering information about customers, technologies, products, finance, research, markets etc to acquire business knowledge. Some entrepreneurs deliberately search for opportunities (Herron and Sapienza, 1992) which involves active behaviour to search for information and interpretation of information resulting in knowledge acquisition. Shane and Venkatraman (2000) stresses the importance of knowledge acquisition by arguing that opportunity recognition is nothing but perceiving, structuring and interpreting information. Researchers have also studied the importance of knowledge acquisition in the process of identifying opportunities across borders and have concluded that it is a potential source of competitive advantage (Williams, C., Lee, S. H., 2011).

Earlier studies suggest that the size of network and number of weak ties significantly affect the number of opportunities recognised by entrepreneurs (Singh et al., 1999), meaning social interaction increases knowledge acquisition of opportunities. Burt (1992, 1997) finds that right positioning of an entrepreneur within a network enhances information gathering and knowledge acquisition although he states that high level of commitment within networks will restrict information gathering and knowledge acquisition. When an entrepreneur has active social activities and cognitively close personal relations, it enhances their knowledge because people will share information at a personal level (Kaish and Gilad, 1991; Christensen, Madsen and Peterson, 1994; Sarasvathy and Kotha, 2001). Recent studies on the mediating effect of cognitive social capital on knowledge acquisition concludes that knowledge access depends on the capacity of the firms to share visions, goals, values, and culture with other actors in the local neighbourhood (Parra, R. G., Molina M. F., García V. P., 2010). Though the studies are equivocal, in general, social capital influences knowledge acquisition. The researchers are interested in finding out the influence of each of the dimension of social capital on knowledge acquisition. Therefore the research hypotheses are:

H1a: There is significant influence of structural dimension of social capital on knowledge acquisition

H2a: There is significant influence of relational dimension of social capital on knowledge acquisition

H3a: There is significant influence of cognitive dimension of social capital on knowledge acquisition

Competitive scanning is aggressively or actively scanning the competitive arena with an objective to create better business strategies and tactics. Every organisation has to scan opportunities, advantages and risks in order to design their competitive strategy. Opportunity recognition therefore involves opportunity filtration, opportunity selection and opportunity refinement (Bhave, 1994).

Entrepreneurs use social interactions to study the competition (Christensen and Peterson, 1990; Hills et al, 1997) and some entrepreneurs even create personal relations to study the markets and competition in order to recognise opportunities (Sigrist, 1999). Trust and friendly relations among entrepreneurs network also enhances competitive scanning (Manimala, 1992; Krackhardt, 1995; Steyaert et al, 1996). The researchers propose the following hypotheses:

H1b: There is significant influence of structural dimension of social capital on competitive scanning

H2b: There is significant influence of relational dimension of social capital on competitive scanning

H3b: There is significant influence of cognitive dimension of social capital on competitive scanning

Proactive searching is the behaviour of an entrepreneur where he proactively searches for future changes and tries to grab them before others could sense such changes. Entrepreneurs generally envision the future and they proactively collect information towards the same in an uncertain and inexact environment. Zietsma (1999) states that opportunity recognition is proactive deliberate search for opportunity.

Social interaction enables an entrepreneur to understand latest trends and proactively envision the future. Past research also suggests that proactive searching requires social relationships (Sarasvathy and Kotha, 2001). Active communication and interaction within the entrepreneurs' network activates proactive search for opportunities (Sarkar, Echambadi and Harrison, 2001). Johannisson (1988) finds that entrepreneurs need emotionally close committed relations with trust and friendliness to discuss possibilities in future. Relationships which are cognitively strong create openness to discuss and carry out proactive ideas. Based on the above discussion, researchers propose the following hypotheses:

H1c: There is significant influence of structural dimension of social capital on proactive searching

H2c: There is significant influence of relational dimension of social capital on proactive searching

H3c: There is significant influence of cognitive dimension of social capital on proactive searching

Innovative behaviour is questioning the existing things with an aim to create something new. But it is also possible that innovative behaviour is exhibited in opportunity recognition to create and compete with recent solutions (Manimala,

1992, 1996). Therefore, opportunity recognition is a creative behaviour (Hills and Lumpkin, 1999) of an entrepreneur who plays with different ideas.

Social interaction is necessary to create new products, services or ideas (Hills and Lumpkin, 1997). Entrepreneurs have close relations with whom they are in constant touch to create new ideas (Kaish and Gilad, 1991; Busenitz and Lau, 1996). When entrepreneurs share their creative ideas with their emotionally supportive relationships that they trust, it gives them a social comfort, thereby enabling them to accept open criticisms and true feedback (Steyaert et al, 1996; Kaish and Gilad, 1991; Amabile, 1997). Based on this study presents the following hypotheses:

H1d: There is significant influence of structural dimension of social capital on innovative behaviour

H2d: There is significant influence of relational dimension of social capital on innovative behaviour

H3d: There is significant influence of cognitive dimension of social capital on innovative behaviour

Collective action is the social behaviour involving environment, organisation and resources in opportunity recognition. Johannisson (1998) suggests that opportunity recognition process is about socially constructing the image of the future by paying attention, indulging in action and interpreting the environment. Therefore, opportunity recognition involves social interaction and interpretation (Larson and Starr, 1993).

Collective action is very likely when the social networks and interactions are active (Krackhardt, 1995) and Sigrist (1999) concludes that those entrepreneurs who were socially active were more collective in their decision-making behaviour. Entrepreneurs discuss and listen to the opinions of their relations whom they know personally well while evaluating opportunities, in other words they are in collective action (Kaish and Gilad, 1991). It is necessary to have such trustworthy personal relations so that they can involve themselves in collective action. Emotionally supportive relations also encourage collective action (Johannisson, 1988; Steyaert, 1996; Larson and Starr; 1993). Recent research finds that people collectively act by way of contributing their knowledge when they perceive that it enhances their professional reputations, when they have the experience to share, and when they are structurally embedded in the network. Surprisingly, it is also found that such contributions occur without regard to expectations of reciprocity from others because it is caused due to high levels of commitment to the network (McLure Wasko, M., Faraj, S., 2005). The above discussions lead to the following hypotheses:

H1e: There is significant influence of structural dimension of social capital on collective action

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H2e: There is significant influence of relational dimension of social capital on collective action

H3e: There is significant influence of cognitive dimension of social capital on collective action

This research will give to the understanding of Opportunity Recognition Behaviour of an entrepreneur in Indian context. This will close the knowledge gap in the literature of entrepreneurship as it exclusively studies every dimension of social capital and its influence on every component of Opportunity Recognition Behaviour in Indian IT & ITESs. As part of contribution to the academic knowledge a scale is also developed and validated. Based on the theoretical background, a conceptual model (see Figure 1) shows the relationship between the dimensions of social capital and the components of Opportunity Recognition Behaviour.

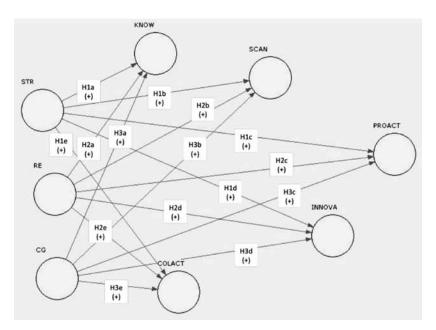


Figure 1 Influence of the various dimensions of social capital on the components of opportunity recognition behaviour

Dimensions of Social Capital – Structural (STR), Relational (RE), Cognitive (CG)

Components of Opportunity Recognition Behaviour – Knowledge Acquisition (KNOW), Competitive Scanning (SCAN), Proactive Searching (PROACT), Innovative Behaviour (INNOVA), Collective Action (COLACT).

METHODOLOGY

Data and Sample Collection

The study focussed on various dimensions of social capital that influence different components of Opportunity Recognition Behaviour. The elements of the study are Indian entrepreneurs, engaged in IT & ITES and who are members of any professional organisations, formal or informal business forums. From this population, the researchers contacted a sample of 250 respondents out of which 123 entrepreneurs willingly responded to the questionnaire. The researchers removed the responses with partial data and that left the researchers with 117 usable responses.

Measurement and reliability of constructs

The research adapted measurement scales from a study carried out in Finland (Vesa Puhakka, 2006) and modified to suit the research objectives and Indian environment. All the measurement items were on seven point Likert scale. The measurement scale had some items elicited from the above mentioned study; some modified with the help of expert opinion. Table 1 summarises the composite reliability, and AVE The internal consistency measure, which is unaffected by scale length, is considered as more general than Cronbach's alpha measure, but the interpretation of the values obtained is similar and the guidelines suggested by Nunnally (1978) is adopted. AVE is Average variance explained which should ideally be equal to or greater than 0.50 for each construct. Table 1, shows that the AVE is greater than 0.50 for each construct except for Collective Action (COLACT) for which the AVE is 0.44.

Construct	Composite reliability	AVE	
STR	0.855731	0.599049	
RE	0.866524	0.684422	
SCAN	0.873068	0.774756	
PROACT	1	1	
INNOVA	0.673227	0.5527	
COLACT	0.607225	0.436056	
KNOW	0.735612	0.509052	
CG	0.898375	0.815501	

Table 1 Reliability of the factors in the model

DATA ANALYSIS

PLS is essentially an iterative estimation procedure that integrates principal components analysis with multiple regression. Because the latent variables in

PLS are easily operationalised as principal components or weighted indices of the measurement variables, they provide managers with explicit benchmarks for evaluating their performance (Carsten et al., 2002). This study attempts to understand the various factors influencing Opportunity Recognition Behaviour of Indian entrepreneurs in IT & ITESs Industry.

RESULTS

The purpose of the conceptual model is to explore the practical means by which entrepreneurs are influenced by social capital in their Opportunity Recognition Behaviour. Visual PLS tested the proposed model (See Figure 2). 27.5% of variance in Knowledge acquisition is explained by social capital ($R^2 = 0.275$). The path coefficient for the relational dimension ($\beta = 0.268$, t = 2.013) is significant suggesting that relational dimension is most important in predicting knowledge acquisition and hence, supports the hypothesis H2a. This is followed by structural dimension ($\beta = 0.239$, t = 2.2659) in predicting its influence on knowledge acquisition. Therefore the hypothesis H1a is accepted. 12.8% of variance in Competitive scanning is explained by social capital ($R^2 = 0.128$), but none of the dimensions are statistically significant. Hence hypotheses H1b, H2b and H3b are rejected. Only 7% variance in

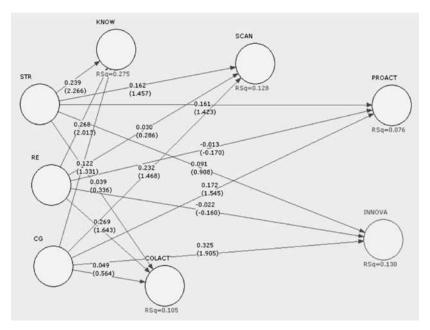


Figure 2 The model showing the influence of various dimensions of Social Capital on the components of Opportunity Recognition

proactive behaviour is predicted by social capital and cognitive dimension explains the variance at 20% level of significance. This leads to the rejection of H1c, H2c and H3c at 5% level of significance. Of all the three dimensions of social capital, which predicts 13% of variance in innovative behaviour, cognitive dimension $(\beta=0.3250, t=1.9052)$ is most important. Therefore the hypothesis H3d is accepted. Structural and relational dimensions are not statistically significant in predicting Innovative behaviour. Therefore, H1d and H2d are rejected. Relational dimension is the most important variable which influences collective action $(\beta=0.2690, t=1.6435)$ at 10% level of significance followed by structural dimension $(\beta=2.680, t=2.0127)$ which is significant at 5% level in predicting the variance in collective action. 10.5% of the variance in collective action is explained by social capital. The above discussion leads to the acceptance of H2e and H1e. Table 2 shows the beta co-efficient with bootstrap results.

Table 2 Structural model coefficients (Beta coefficients for various paths - with Bootstrap results)

	Entire sample estimate	Mean of Subsamples	Standard error	T-Statistic
STR->KNOW	0.239	0.2529	0.1055	2.2659*
STR->SCAN	0.162	0.1912	0.1112	1.4573
STR->PROACT	0.161	0.1892	0.1132	1.4229
STR->INNOVA	0.091	0.1387	0.1003	0.9076
STR->COLACT	0.039	0.1637	0.1162	0.3356
RE->KNOW	0.268	0.2902	0.1332	2.0127*
RE->SCAN	0.03	0.1112	0.105	0.2857
RE->PROACT	-0.013	-0.1159	0.0763	-0.1704
RE->INNOVA	-0.022	-0.1331	0.1376	-0.1598
RE->COLACT	0.269	0.2678	0.1637	1.6435**
CG->KNOW	0.122	0.1446	0.0917	1.3306
CG->SCAN	0.232	0.2418	0.158	1.4683
CG->PROACT	0.172	0.1636	0.1113	1.5452
CG->INNOVA	0.325	0.3631	0.1706	1.9052**
CG->COLACT	0.049	0.1296	0.0869	0.5637

^{*-}Significant at 0.05 level

DISCUSSION

The above model reveals that social capital influences knowledge acquisition in the process of Opportunity Recognition Behaviour of an entrepreneur. This is in line with the results of similar studies in the context of SMEs where it is concluded that all the dimensions of social capital influence the firm's knowledge acquisition

^{** -} Significant at 0.1 level

process (Linstrand, Melen & Nordman, 2011). However, this study on IT & ITES industry reveals the strength of relational dimension over other two dimensions suggesting that close relationship between entrepreneurs and others in his network enhances the process of knowledge acquisition. IT & ITES include a full range of service engagement types including systems integration, consulting, training and support, IT outsourcing, managed services, hosting services maintenance services and the like. An entrepreneur may not have complete knowledge on the whole range of IT & ITES. They seek information and knowledge from their personal contacts if they do not have expertise in a particular area. But in this knowledge era, where social media networking is gaining importance, entrepreneurs use wide base for gathering information, even if they do not know the contacts personally. The study by Kaish and Gilad (1991) also finds that entrepreneurs have wide base for acquiring knowledge. Comparing solo entrepreneurs with network entrepreneurs, Hills et al. (1997) found that social interaction increases knowledge acquisition. This is in support of the result of this study that an entrepreneur's network structure and the amount of interaction increases knowledge acquisition. Research conclusions have supported that the structural dimension has a positive effect on high-tech firms' knowledge acquisition for foreign development, which is nothing but a part of opportunity recognition (Presutti et al., 2007).

This study finds that competitive scanning is not much influenced by social capital. This means entrepreneurs do not rely heavily on their social capital to scan the environment to identify opportunities. This is because competitive scanning demands a lot of hard work from entrepreneurs. It is not fun. It is found that experienced entrepreneurs generally avoid it because they feel it is an unpleasant job (Herron and Sapienza, 1992; Kuratko *et al.*, 1997). Entrepreneurs in IT & ITES businesses cannot afford that time and effort to undertake formal competitive scan to recognise opportunities as it is a very dynamic industry. Though entrepreneurs make use of their social capital to acquire information, they do not actively engage themselves in utilising the social network to scan the environment. Earlier study by Hills *et al.* (1999) found that creativity of entrepreneur contributes significantly to competitive scanning. Opportunity recognition is the resultant of some pain points experienced or observed and the entrepreneurs creatively play with information to create a space for themselves.

Proactive searching behaviour of opportunity recognition is not significantly influenced by an entrepreneur's social capital. This is in line with earlier studies which found that entrepreneurs do not analyse and calculate the features of opportunities very closely but are mentally alert to events that could tell them something about future developments (Sarasvathy, 2001). Also they do not engage deliberately in finding an opportunity with high newness value. The reason for this is because there are more of necessity based entrepreneurship than opportunity based entrepreneurship in India. Though India is ninth in the Global Entrepreneurship Monitor (GEM) survey of entrepreneurial countries, it is highest

among 28 countries in Necessity based entrepreneurship, while 5th from the lowest in opportunity based entrepreneurship. It is also found in this study that the cognitive dimension of social capital influences proactive searching to some extent. This means cognitively committed relations support entrepreneurs to a small extent, in thinking about future trends and opportunities as also proposed by earlier studies (Sarasvathy and Kotha, 2001).

To a large extent, the Indian society is risk averse and Social Attitude among other major factors is a hindrance in innovative behaviour. But cognitively committed relationships foster innovative behaviour of an entrepreneur. This is evident from the study results showing significant influence of cognitive dimension of social capital on innovative behaviour in opportunity recognition process. This is similar to the findings of Kaish and Gilad (1991) and Steyaert *et al.* (1996). In a study undertaken in Finland (Vesa Puhakka, 2006), it is found that innovative behaviour is by nature a very individual phenomenon and not a social phenomenon. But in Indian context, it is not a completely individual phenomenon. This is evident from the fact that many incubation centres and mentorship programmes are launched by premier trade bodies and other organisations that foster entrepreneurship. They are engaged in networking, mentoring and educating and showcasing entrepreneurs in IT Industry.

There is significant influence of relational and structural dimension of social capital on collective action in opportunity recognition process. This supports the fact that entrepreneurship is a process of collective exploration (Liliana Doganova, 2009). Opportunity recognition is neither purely created nor discovered by a single person but enacted in partnerships, networks and alliances. This is evident in IT industry where various professional forums and social groups invite ideas, discuss opportunities and also the possible outcome. Greater the amount of relationships and closer the extent of relationships, like people who recommend them on opportunity recognition, higher is the collective action of entrepreneurs. The entrepreneurs therefore engage in collective action with the help of their social networks and personal relations. Personal relations need not mean there is existence of high level of understanding between the entrepreneur and his social relations.

CONCLUSION

The purpose of this study is to understand the influence of social capital on Opportunity Recognition Behaviour process with respect to IT & ITES industry in India. Secondly, the purpose was to develop a scale that measured social capital and Opportunity Recognition Behaviour in Indian context, which, with some changes could be used across industries and a variety of entrepreneurial settings.

The study results contributed to the components that can be considered for social capital and Opportunity Recognition Behaviour which will be useful for research in this direction. Social capital helps entrepreneurs take informed and better decisions in opportunity recognition. It is important to identify and pursue good opportunities as there is a cost associated with every decision. Moreover, in micro, small and medium enterprises, entrepreneurial finance and strategy is a major concern. Therefore it is imperative to recognise, evaluate and exploit opportunities from a lot of decision choices.

LIMITATIONS AND FUTURE DIRECTIONS OF RESEARCH

This research focused on studying the theoretical foundations of the variables. Though the results of this study are revealing, the study has not considered the entrepreneurs who are non-members of any professional organisations, formal or informal business forums. Also, the demographic details are not included in the proposed model and further analysis. The research could give a more holistic picture if the above mentioned factors are included in future research.

REFERENCES

- Adler, P. and Kwon, S. (2000). Social Capital: The Good, the Bad and the Ugl, in *Knowledge and Social Capital: Foundations and Applications* (Ed.) E. Lesser, Butterworth-Heineman, Boston, pp. 80-115.
- Aldrich, Howard and Catherine Zimmer. (1986) Entrepreneurship Through Social Networks, in D. Sexton and R. Smilar (Eds.) *The Art and Science of Entrepreneurship*, Ballinger, New York, pp. 3-23.
- Amabile, T. (1997) Motivating Creativity in Organisations: On Doing What You Love and Loving What You Do, *California Management Review*, **40(1)**, 39-58.
- Ardichvili, A. and Cardozo, R. N. (2000). A Model of the Entrepreneurial Opportunity Recognition Process, *Journal of Enterprising Culture*, **8(2)**, 103-119.
- Baron, R. A. and Markman, G. D. (2003) Beyond Social Capital: The Role of Entrepreneurs' Social Competence in Their Financial Success, *Journal of Business Venturing*, **18(1)**, pp. 41-60.
- Bhave, M. P. (1994) A Process Model of Entrepreneurial Venture Creation, *Journal of Business Venturing*, **9(3)**, 223-242.
- Burt, R. S. (1992) Structural Holes: The Social Structure of Competition. Harvard University Press: Cambridge, MA.
- Burt, R. S. (1997) A Note on Social Capital and Network Content, *Social networks*, **19(4)**, 355-373.
- Busenitz L. W. and Barney J. B. (1997) Differences Between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision-making, *Journal of Business Venturing*, **12(1)**, 90-30.
- Busenitz, L. W. and Lau, C. M. (1996) A Cross-cultural Model of New Venture Creation, Entrepreneurship Theory and Practice, 20(4), 25-38.

- Bygrave, W. (1993) Theory Building in the Entrepreneurship Paradigm, *Journal of Business Venturing*, **8(3)**, 255-280.
- Carsten, H., Michael, D. J., Andrea, H. and Frank, H. (2002) Capturing Customer Heterogeneity Using a Finite Mixture, PLS Approach, Schmalenbach Business Review 54(7), 243-269.
- Chandler, Gaylen, DeTienne and Lyon. (2003) Outcome Implications of Opportunity Recognition/Discovery Processes. In *Frontiers of Entrepreneurship Research* (Ed.) W. Bygrave, C. Brush and P. Daviddsson *et al.*, Wellesley, MA.
- Chell, E. (2000) Towards Researching the 'Opportunistic Entrepreneur': A Social Constructionist Approach and Research Agenda, European Journal of Work and Organizational Psychology, 9(1), 63-80.
- Christensen, P. S. and Peterson, R. (1990) Opportunity Identification: Mapping the Sources of New Venture Ideas, in 10th Annual Babson Entrepreneurship Research Conference, April 1990, Aarhus University Institute of Management, Denmark.
- Christensen, P. S. Madsen, O. O. and Peterson, R. (1994) Conceptualizing Entrepreneurial Opportunity Recognition *in Marketing and Entrepreneurship: Research Ideas and Opportunities* (Ed.) G. E. Hills, Quorum Books, Westport, CT, pp. 61-75.
- Coleman, J. C. (1994) Foundations of Social Theory. Harvard University Press: Cambridge, Mass.
- Das, T. K. and Teng B. S. (1997) Time and Entrepreneurial Risk Behaviour, *Entrepreneurship Theory and Practice*, **22(2)**, 69-88.
- David J. Hansen, Rodney Shrader and Javier Monllor. (2011) Defragmenting Definitions of Entrepreneurial Opportunity. *Journal of Small Business Management*, 49(2), 283-304.
- Davidsson, P. and Honig, B. (2003) The Role of Social and Human Capital Among Nascent Entrepreneurs, *Journal of Business Venturing*, **18(3)**, 301-331.
- Delmar, F. and Shane, S. (2004) Legitimating First: Organizing Activities and the Survival of New Ventures, *Journal of Business Venturing*, **19(3)**, 385-410.
- Elfring, T. and Hulsink, W. (2003) Networks in Entrepreneurship: The Case of High-Technology Firms, *Small Business Economics*, **21(4)**, 409-422.
- Embassy of India. (2011) *Indian Information Technology Industry*. Retrieved April 10, 2011 from http://www.indianembassy.org/indiainfo/india it.htm.
- ET Bureau. (2011) Service Sector SMEs More Bullish About Growth. Retrieved April 10, 2011 from http://economictimes.indiatimes.com/opinion/india-emerging/service-sectorsmes-more-bullish-about-growth/articleshow/6174510.cms.
- Gaglio, C. M. and Katz, J. (2001) The Psychological Basis of Opportunity Identification: Entrepreneurial Alertness, *Small Business Economics*, **16(2)**, 95-111.
- Granovetter, M. S. (1985) Economic Action, Social Structure and Embeddedness, American Journal of Sociology, 91(3), 481-510.
- Grégoire, Barr and Shepherd. (2010) Cognitive Processes of Opportunity Recognition, Organization Science, 21(2), 413-431.

- Hansen, D. J., Shrader, R. and Monllor, J. (2011) Defragmenting Definitions of Entrepreneurial Opportunity, *Journal of Small Business Management*, 49(2), 283-304.
- Herron, L. and Sapienza, H. (1992) The Entrepreneur and the Initiation of New Venture Launch Activities, *Entrepreneurship Theory and Practice*, **17(1)**, 49-55.
- Hills, G. and Lumpkin G. T. (1997). Opportunity Recognition Research: Implications for Entrepreneurship Education, in *Proceedings of the IntEnt 97: the 1997 International Entrepreneurship Conference*, Monterey Bay, June 25-27, California, USA.
- International Entrepreneurship. (2011) Entrepreneurship in India. Retrieved April 10, 2011 from http://www.internationalentrepreneurship.com/asia_entrepreneur/India_entrepreneur.asp.
- International Monetary Fund GEM INDIA 2002 REPORT, 2011. *Report for Selected Countries and Subjects*. Retrieved April 10, 2011 from http://www.internationalentrepreneurship.com/asia entrepreneur/India entrepreneur.asp.
- Johannisson, B. (1988) Business Formation: A Network Approach, *Scandinavian Journal of Management*, **4(3/4)**, 83-99.
- Kahneman, D. and Tversky, A. (1979) Intuitive Prediction: Biases and Corrective Procedures, in *Forecasting* (Ed.) S. Makridakis and S.C. Wheelwright, North-Holland, TIMS Studies in Management Science 12, pp. 313-327.
- Kaish, S. and Gilad, B. (1991) Characteristics of Opportunities Search or Entrepreneurs Versus Executives: Sources, Interests, General Alertness. *Journal of Business Venturing*, 6(1), 45-61.
- Keh Hean Tat, Foo Maw Der, Lim, and Boon Chon. (2002) Opportunity Evaluation under Risky Conditions: The Cognitive Processes of Entrepreneurs, *Entrepreneurship: Theory & Practice*, **27(2)**, 125-149.
- Kirzner, I. (1979) Perception, Opportunity, and Profit. Studies in the Theory of Entrepreneurship. University of Chicago Press: Chicago.
- Kirzner, I. (1981) Competition and Entrepreneurship. University of Chicago Press: Chicago.
- Kirzner, I. (1997) Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach, *Journal of Economic Literature*, **35(1)**, 60-85.
- Kontinen Tanja and Ojala Arto. (2011) International Opportunity Recognition among Small and Medium-Sized Family Firms, *Journal of Small Business Management*, **49(3)**, 490-514.
- Krackhardt, D. (1995) Entrepreneurial Opportunities in an Entrepreneurial Firm, A Structural Approach, *Entrepreneurship Theory and Practice*, **19(3)**, 53-69.
- Koçak Akin, Morris Michael Haroon, Buttar Haroon Muzaffer, Cifci Sertaç. (2010) Entrepreneurial Exit and Reentry: An Exploratory Study of Turkish Entrepreneurs, *Journal of Developmental Entrepreneurship*, **15(4)**, 439-459.
- Kuratko, D., Hornsby, J. and Naffziger, D. (1997) An Examination of Owner's Goals in Sustaining Entrepreneurship, *Journal of Small Business Management*, **35(1)**, 24-33.
- Larson, A. and J. Starr. (1993) A Network Model of Organisation Formation, Entreprenuership Theory and Practice, 17(2), 5-15.

- Liliana, D. (2009) Entrepreneurship As a Process of Collective Exploration. CSI Working papers series, no 017.
- Lindstrand, A., Melen, S., Nordman, E. R. (2011). Turning Social Capital into Business: A Study of the Internationalisation of Biotech SMEs, *International Business Review*, 20(2), 194-212.
- MA Rong, Huang Yen-Chih and Shenkar Oded. (2011) Social Networks and Opportunity Recognition: A Cultural Comparison Between Taiwan and the United States, *Strategic Management Journal*, **32(11)**, 1183-1205.
- Manimala, M. (1992) Entrepreneurial Heuristics: A Comparison Between High PI (Pioneering-innovative) and Low PI ventures, *Journal of Business Venturing* 6(7), pp.477-504.
- Manimala, M. (1996) Beyond Innovators and Initiators: A Taxonomy of Entrepreneurs, *Creativity and Innovation Management*, **5(3)**, 179-185.
- Martello. W. (1994) Developing Creative Business Insights: Serendipity and Its Potential in Entrepreneurship, *Entrepreneurship and Regional Development*, **6(2)**, 239-258.
- McLure Wasko, M., Faraj, S. (2005) Why should I share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice, MIS Quarterly, 29(1), 35-57.
- Miller, D. (1987) Strategy Making and Structure: Analysis and Implications for Performance, *Academy of Management Journal*, **30(1)**, 7-32.
- Nahapiet, J. and Ghoshal, S. (1998) Social Capital, Intellectual Capital and the Organizational Advantage, Academy of Management Review, 23(2), 242-266.
- NASSCOM, 2009. Industry Trends. Retrieved April 10, 2011 from http://www.nasscom.in/Nasscom/templates/NormalPage.aspx?id=56966.
- Nunnally, J. C. (1978) Psychometric Theory (2nd ed.). New York: McGraw-Hill.
- Parra-requena, Gloria, Molina-morales, Francesc xavier, García-villaverde, Pedro manuel (2010) The Mediating Effect of Cognitive Social Capital on Knowledge Acquisition in Clustered Firms, *Growth and Change*, **41(1)**, 59-84.
- Pech, R. J. and Cameron, A. F. (2006) An Entrepreneurial Decision Process Model Describing Opportunity Recognition, European Journal of Innovation Management, 9(1), 61-78.
- Presutti, M., Boari, C. and Fratocchi, L. (2007) Knowledge Acquisition and the Foreign Development of High-tech Start-ups: A Social Capital Approach, *International Business Review*, **16(1)**, 23-46.
- Ramos-Rodríguez, Antonio-Rafael, Medina-Garrido, José-Aurelio, Lorenzo-Gómez, José-Daniel, Ruiz-Navarro, José, 2010. What you know or who you know? The role of intellectual and social capital in opportunity recognition. *International Small Business Journal*, 28(6), pp. 566-582.
- Sarasvathy, S. D and Kotha, S. (2001) Dealing with Knightian Uncertainty in the New Economy: The Real Networks Case. In *Research on Management and Entrepreneurship* (Ed.) J. E. Butler, IAP Inc, Greenwich, Vol. 1, pp. 31-62.
- Sarkar, M. B., Echambadi, R. A. J. and Harrison, J. S. (2001) Alliance Entrepreneurship and Firm Market Performance, *Strategic Management Journal*, **22**, 701-712.

- Shane, S. and Venkataraman, S. (2000) The Promise of Entrepreneurship as a Field of Research, Academy of Management Review, 25(1), 217-226.
- Shaver Kelly, G. and Scott Linda, R. (1991) Person, Process, Choice: The Psychology of New Venture Creation, *Entrepreneurship: Theory & Practice*, **16(2)**, pp. 23-45.
- Sigrist, B. (1999) *How do You Recognise an Entrepreneurial Opportunity*? Entrepreneurial Opportunity Recognition in Swiss Context. Ph. D. Thesis. University of Zurich.
- Singh, R. G. Hills, R. Hybels and Lumpkin, G. T. (1999) Opportunity Recognition Through Social Network Characteristics of Entrepreneurs, in *Frontiers of Entrepreneurship Research* (Eds.) P. Reynolds, W. Bygrave, K. Shaver, C. Mason, S. Manigart, G. D. Meyer and H. Sapienza, Babson College, Wellesley, MA.
- SME Chamber of India, 2010. *The Role of SME Sector in Nation Development*. Retrieved April 10, 2011 from http://www.smechamberofindia.com/rol_of_sme_sector.aspx.
- Som Mittal. (2009) Indian IT Industry Road Ahead. Siliconindia, December 1, 2009, pp 6-7.
- Steyaert, C., Bowen, R. and Van Looy, B. (1996) Conversational Construction of New Meaning Configurations in Organisational Innovation: A Generative Approach, *European Journal of Work and organisational Psychology*, **6(1)**, 67-89.
- Teach, Scwartz R. R and Tarpley F. (1989) The Recognition and Exploitation of Opportunity in Software Industry: A Study of Surviving Firms, in *Frontiers of Entrepreneurship Research* (Eds.) R. Brockhaus, , Jr N. Churchill, J. Katz, B. Kirchhoff, K. Vesper and W. Wetzel, Jr. Wellesley, MA, Babson College.
- Vesa Puhakka. (2006) Effects of Social Capital on the Opportunity Recognition Process, Journal of Enterprising Culture, 14(2), 105-124.
- Vesper, K. (1991). Venture Idea Discovers Metal Sequences, in *Frontiers of Entrepreneurship Research* (Eds.) N. Churchill, W. Bygrave, J. Covin, D. Sexton, D. Slevin, K. Vesper and W. Wetzel, Jr, Wellesley, MA, Babson College., pp. 148-158.
- Walker, G., Kogut, B. and Shan, W. (1997) Social Capital, Structural Holes and the Formation of an Industry Network, *Organization Science*, **8(2)**, 109-126.
- Williams Christopher, Lee and Soo Hee. (2011) Entrepreneurial Contexts and Knowledge Coordination Within the Multinational Corporation, *Journal of World Business*, **46(2)**, 253-264.
- Zeitsma, C. (1999) Opportunity Knocks Or Does it Hide? An Examination of the Role of Opportunity Recognition in Entrepreneurship, in *Frontiers of Entrepreneurship Research* (Eds.) P. Reynolds, W. Bygrave, K. Shaver, C. Mason, S. Manigart, G. D. Meyer and H. Sapienza, Babson College, Wellesley, MA.