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DEVELOPING A RESEARCH FRAMEWORK FOR UNDERSTANDING THE SOCIAL REALITIES, WITH SPECIAL REFERENCE TO SRI LANKAN ENTREPRENEURS

Helen Gamage, Donald Cameron, and Elizabeth Woods
(University of Queensland, Gatton)

Abstract

This paper identifies and examines issues of relevance for increasing effectiveness of entrepreneurial management research. These issues emerged from research into entrepreneurial behaviour and underlying motivations in Sri Lanka. Understanding of socially- and culturally-bound social actors, social actions and social outputs in entrepreneurial activity requires context-sensitivity, expressed through cognisance of institutional characteristics, the interface between cultural values and business, and historical and cultural forces which impact on entrepreneurship. We suggest that this requires exploration through bottom-up translations of actions consistent with the beliefs and values of the actors involved, employing qualitative methodology to ground the reality of human behaviour in deep-rooted cultural and social contexts. Thorough interpretation of holistic case studies that are capable of capturing the actors' viewpoints brings appropriate insights to the field of entrepreneurship.

Introduction

Entrepreneurship is increasingly accepted as a key factor in the socio-economic development of both developed and developing countries. Entrepreneurship is a broad concept embedded in activities in the agriculture, industrial and service sectors. These sectors are interrelated, involve complex human interactions and embrace a range of artefacts and objective realities. Despite this, the dominant ideology of development thinking is materialistic. As a result, some entrepreneurship researchers observe artefacts and objective realities in the physical world and view them as reality. Others take an open-system or environmental approach emphasising the impact of external environmental factors (socio-economic, political, educational, legal) on entrepreneurial practices and effectiveness. Both approaches result in socio-cultural realities being viewed as secondary influences on entrepreneurial behaviour.

Failure to recognise socio-cultural realities is often attributed to reductionist approaches to knowledge (Nanayakkara 1999). In developing countries blind faith in western ideologies such as cognitive understanding of socio-economic change and the economic view of society, along with the complexity of local society and culture, also hinder attempts to uncover the social reality surrounding entrepreneurs. This paper outlines the development of a research framework and process to better understand society, community and entrepreneurial activity, based on experience of research undertaken in the agriculture and small business sectors in Sri Lanka.

Limited returns to the application of western models of entrepreneurship

As has occurred internationally, the development of small and medium-scale enterprises in Sri Lanka has been recognized as necessary to achieve rapid socio-economic growth. Government, international organizations and NGOs have invested their efforts in entrepreneurship development. Empowering entrepreneurs has been addressed through training, technology, and financial and other advice.

Typically external personnel employed in bilateral and multilateral assistance programmes have followed western ideologies (Nanayakkara 1999; Ratnasiri 1999; Wickramasinghe and Hopper 2000). However, aiming for agricultural, and industrial development through the application of western ideologies in developing countries has been challenged for many years (Hofstede 1980; 1994; 2001; Fink et al. 1983; Leonard 1985; Sexton 1987; Reynolds 1991; Adler 1997; Kao, Sinha et al. 1999; Perera 1990), with the focus falling on several management aspects (Nanayakkara and Ranasinghe 1984; Alawattage 1998; Nanayakkara 1999; Ratnasiri 1999; Wickramasinghe and Hopper 2000). These have included the validity and transferability of knowledge (Leonard 1985; Sexton 1987), the utility and impact of such knowledge (Fink et al. 1983; Kao et al. 1999; Singh et al. 1999) and cultural diversity (Hofstede 1980; 1984; 1994; Nanayakkara and Ranasinghe 1984; Nanayakkara 1999; Perera 1990; Adler 1997; Alawattage 1998; Kao et al. 1999; Ratnasiri 1999; Wickramasinghe and Hopper 2000). Leonard (1985) emphasized the importance of the absorptive capacity of the host to utilize transferred knowledge, implying the need for host country socio-cultural compatibility with the western paradigm.

How many transferred ideologies actually take root and bear fruit in Sri Lankan settings is not precisely known. However, concerned researchers, trainers, and entrepreneurs in Sri Lanka have noted the failure of such “transplants” to lead to ongoing insights. Ratnasiri (1999) asserts that the functionalist, rational and positivist framework of the western paradigm does not enable an understanding from a socio-cultural perspective. Wickramasinghe and Hopper (2000), Alawattage (1998) and Perera (1990) emphasise that it is difficult to evaluate and understand cultural factors through the lenses of other cultures. Research on the impact of the entrepreneurship development system in Sri Lanka has revealed that it has not been as successful as expected (Gamage 1989; Gamage and Mendis 1999). Normative western entrepreneurship and management theories based on the rationality of logical positivism have produced unexpected socio-cultural conflicts (Perera, 1990; Alawattage 1998; Ratnasiri, 1999; Nanayakkara, 1999; Wickramasinghe and Hopper 2000; Wickramasinghe et al. 2001). For example, effects have been observed on relationship-orientation in communication, the value-work interface and patterns of management and leadership.

Western style management education and training has not made an appreciable contribution to organizational success in Sri Lanka. Nanayakkara (1999) asserts that as a result, “the process of management in our organisations in almost every vital sector of the economy is increasingly proving its inability to convert input resources into useful output efficiently” (p16). Some trainers such as Buddadasa (1999) argue that this system of entrepreneurship development and training

is destructive. Fernando (1993) believes the system needs to be rethought. Nanayakkara (1999) asserts that training institutions have failed to attract the participation of managers in key positions in organizations into training courses.

In fifteen years of experience as an academic and resource person in this area of study in Sri Lanka, one of the authors of this paper (Gamage) has personally experienced several cases where entrepreneurs have raised the practical problems of applying western models in various business activities. In a current study, entrepreneurs on the way up the business ladder also strongly rejected as inappropriate the use of business management consultancy based on western models and situations¹.

Socio-cultural values: the context for entrepreneurial behaviour

Entrepreneurship as a human activity is a social phenomenon whose essence is the entrepreneur. The entrepreneur cannot ignore community and other social actors who are involved in or impact on his/her entrepreneurial effort. In this sense, studies of entrepreneurial activity must recognize the importance of human volition. Human inferences are shaped by culture (Cafagna 1960; Hutchins 1980; Hofstede 1984), the underlying contextual beliefs and value systems on which actions are based. Especially in developing countries, many people find their primary sources of the meaning of life in socio-cultural values, beliefs and mysteries (Nanayakkara 1999). Therefore, research into entrepreneurial behaviour in developing countries should consider contextual issues (Low and MacMillan 1988) and identify the social processes.

The usefulness and endurance of a theory is determined by the way the theory is generated. Established social theories, including Weber's theory of bureaucracy and the Marxist theory of power which were inductively developed from social research, suggest that it is not possible to completely separate those theories from the society. Matza (1969) noted that "in the empirical world, man is subjective not objective except when he is likened to one by himself or by another subject. Naturalism must choose the subjective view, and consequently it must combine the methods with the distinctive tools of humanism - experience, intuition and empathy" (p8). Thus, the paradigmatic disposition chosen to consider entrepreneurial activity should encompass the social worlds (subjective elements) of the entrepreneur's actions as well as the physical (objective) elements², as illustrated in Figure 1.

¹ More than 90% of the entrepreneurs who were interviewed in this study raised this issue without prompting.

² The "physical world" includes resources, systems of management and environmental factors (state policies, legal and technological systems) which are objectively defined as 'artefacts'. The "social world" includes social, cultural and political ideologies which are meaningful and subjectively interpreted.

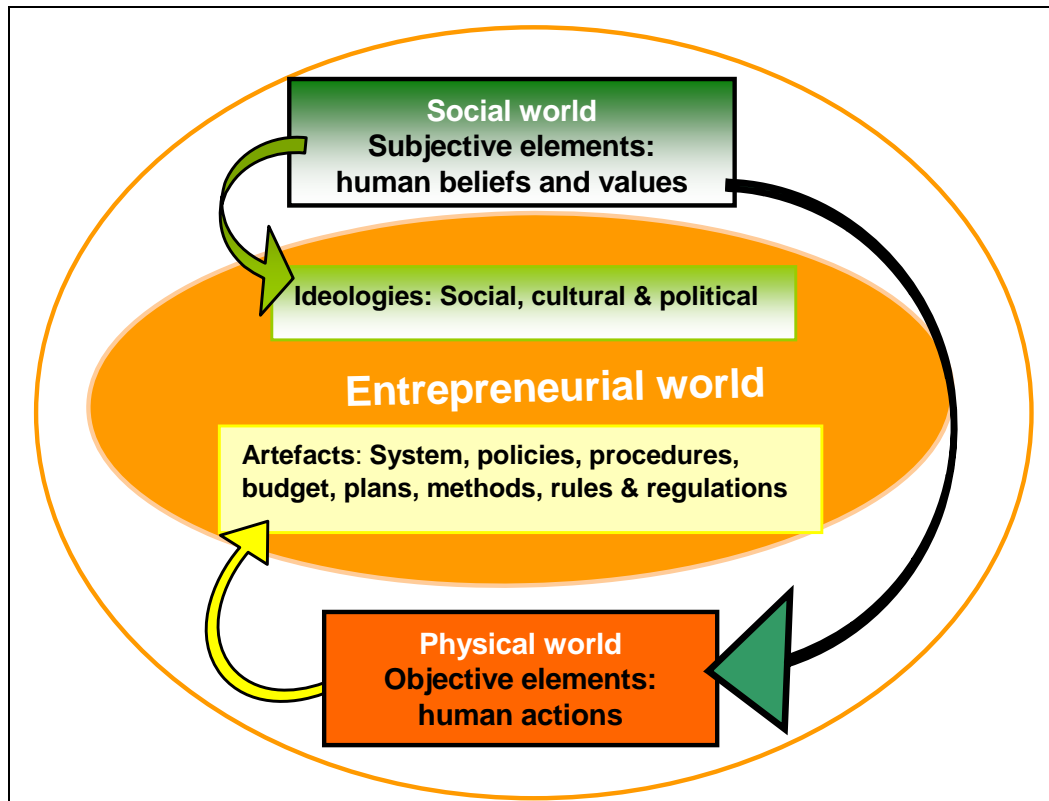


Figure 1 The entrepreneurial world of subjectivity and objectivity

Socio-cultural components of entrepreneurial reality

Culture is fundamental to any social system (Milner 1994). Human behaviours are functions of a specific socio-cultural system (Hofstede 1993; 1994; 2001) in which cultural institutions may affect individual behaviours. Social actions (by entrepreneurs) are meaningful human behaviours (Weber cited in Runciman 1978) which cannot be separated from their social and cultural context (Bloodgood et al. 1995; Robinson and Shaver 1995). Thus, the entrepreneurial world is a channel through a well-integrated society and culture in which the value system becomes the crucial determinant of an individual's actions, including economic actions.

Human beliefs, values and attitudes are neither measurable nor precise; it is more useful to think of them as meaningful in the world. Their meanings are multiple, changing, and contextual - universality and generalization are secondary to the world of meaning. This implies that the meanings which underpin entrepreneurial actions could be explored through the form of multiple mental constructions, socially and experientially from the actor's point of view. This is an interpretive procedure (Bulmer 2000) of reaching an understanding of how people describe things and experience them from their socio-cultural standpoint (Husserl 1964). A socio-cultural analysis of entrepreneurial activity is ethical and unlike the more traditional models and theories that focus on economic reality or personality traits of the individual entrepreneur (Covin and Slevin 1991), it requires holism which has the potential to lead to a satisfying alternative paradigm for entrepreneurial reality.

Emerging research philosophy

The emerging research philosophy outlined above builds on a set of beliefs and feelings about the world (ontology) and how it should be understood (epistemology) and studied (methodology) (Denzin and Lincoln 2000). These will be briefly outlined.

Ontology: the world is subjective

Whatever the sector (agriculture or industry), entrepreneurial performance results from social actors embedded within the social system. Social actors, both the entrepreneur or other groups of people involved with him/her, are characterized by diverse minds, psyches, emotions, thoughts, feelings, senses, attitudes, beliefs, views, self, individuals, ideas, motivations, consciousness, experience, education, skills, training and behavioural patterns. The individual entrepreneur converts inputs (opportunities and resources) into outputs (entrepreneurial performance) by a social process adopted in his or her social context.

Such inputs, processes and outputs involve frequent discontinuities and change in the real life context; thus there are multiple realities (Denzin and Lincoln 2000) and positivistic science can be rejected as being an inappropriate framework for investigation. Instead the appropriate ontology for the study of entrepreneurial social reality is relativistic pragmatism; that is, the social world is established and understood rather than being a universal truth.

Seeking subjective realism rather than imposing preconceived beliefs

Dissimilarities in actions involving objective structures, procedures, organizations, production, consumers, markets, and so on, apply not only from individual-to-individual but also from situation-to-situation and culture-to-culture. Social actions are a representation of each individual's socio-cultural constructions, and their perceptions: the research task is to seek to understand the subjective realism rather than to impose objective rationalism (Mason, 1996). It is important that the researcher not have preconceived beliefs in exploring social realities. Wickramasinghe and Hopper (2000) identify the risk that "cultural dimensions are predetermined by researchers independently from observations in cultural settings, enabling researchers to 'nicely pack' their 'facts' into the typology 'box' "(p1). Interpreting and understanding the meanings of the social reality through close interaction with the knower and the known (Denzin and Lincoln 2000) requires active interaction between the researcher and the individual or community who is experiencing the phenomenon.

Qualitative methodology: Inductive holism

The researcher must live in the context, seeking to understand the actor's feelings, attitudes, meanings, values and beliefs through the actor's own interpretation of their real life experiences. The resulting inductive and holistic study of human experience requires qualitative methodology to explore the inward and outward interactions of entrepreneurial experience.

Holistic case studies appropriate to the phenomenon (Glaser and Strauss 1967; Mintzberg, Raisinghani et al. 1976; Burgelman 1983; Yin 1994; Merriam 2001) hold the key to discovering theoretical understanding from empirical data. The inductive data generation strategies (such as open interviews, observations, participation and analysing artefacts) provide opportunities to explore emerging themes, based on grounded theory techniques with triangulation of data sources. The role of the researcher is to act as an empathizing participant and does not influence the behaviours of entrepreneurs, which affect their performance.

Because the experiences of another person cannot be fully understood (Patton 2002) and their interpretation is time consuming, the researcher must make decisions in relation to the research strategy and the unit of analysis. Should the researcher study a narrow range of experiences for a larger number of entrepreneurs or a broader range of experiences for a smaller number of entrepreneurs? For generating theoretical understanding, the number of cases is not so crucial; even a single information rich case can indicate a general conceptual category (Glaser and Strauss 1967; Eisenhardt 1989). However, theory generation by comparative analysis requires a multitude of carefully selected cases (Glaser and Strauss 1967) in which practicable and ethical selections are considered (Mason 1996). Theoretical saturation in practice often combines with pragmatic considerations such as time and money to dictate when case collection ends (Eisenhardt 1989; Strauss and Corbin 1997). In this study, ten successful entrepreneurs were found: University academics, Banks and other support institutes and general public opinions were considered:

Research method: questions in general form

As identified previously, a study of the socio-cultural realities affecting entrepreneurial performance within an ontological framework of subjective realism will be an inductive exploratory study (cf. Patton 1990; Yin 1994; Merriam 2001), which does not conform to any existing hypotheses (cf. Kuhn 1996). The necessary research questions must be general (Glaser and Strauss 1967). Although the emphasis of questions can be changed or modified throughout the field study (see Bulmer 1978), these questions simply guide the study towards exploring persuasive stories (Hopper et al. 1995) through an integrative process to understand the interface between exogenous factors, the unique elements of the existing local culture, and entrepreneurial performance. The aim is a substantive theoretical understanding emerging from the data (Strauss and Corbin 1990; Strauss and Corbin 1997; Merriam 2001; Patton 2002) to bring new insights of the interplay between social realities and the field of entrepreneurial activity.

4.5 Research method: ensuring reliability and validity

Gill and Johnson (1997) explain that validity and reliability in data may be threatened by observer-case effects (observer protected), observer bias, limitations of access to data, and the complexities and limitations of the human mind. Bearing these risks in mind, the strength of the case study approach lies in the opportunities for triangulation of data collection and multiple analysis methods to ensure reliability and internal and construct validity (Yin 1994; Merriam 2001).

Data triangulation is pertinent to this type of study about human activities. It is an accepted norm in the Asian cultural context that in many situations actual human actions may differ from what is said; that is, people are prone to say one thing while doing something completely different. Such human behaviour affects the research findings and leads to the risk of developing an inappropriate theory of entrepreneurial reality. Therefore, data collection processes included interviewing the entrepreneur, his/her family members who involved in, workers, attending meetings, looking at secondary documents, and some participant observation. Investigator triangulation may be employed to get different viewpoints of a critical situation, to see deviations between proposed and actual actions, and to avoid the researcher's biases.

In the Sri Lankan context the three round field study of Bulmer (2000) and Merriam (2001) was employed. The first round established social contacts and built awareness of background information in the field; the second round involved in-depth investigation and the final round was used to ensure reliability and validity through replicating and checking on comparative evidence either internally (within a study), externally (outside a study), or both.

Analysis: developing analytical protocols

Analysing data is the heart of building theory from case studies (Eisenhardt 1989). Case study researchers use several analyses, such as within-case analysis and searching for cross-case patterns. Searching for cross-case patterns is important in the building of theoretical understanding, as it facilitates observing the patterns of behaviour of different cases and identifying the similarities and dissimilarities in the building of relationships (Figure 2).

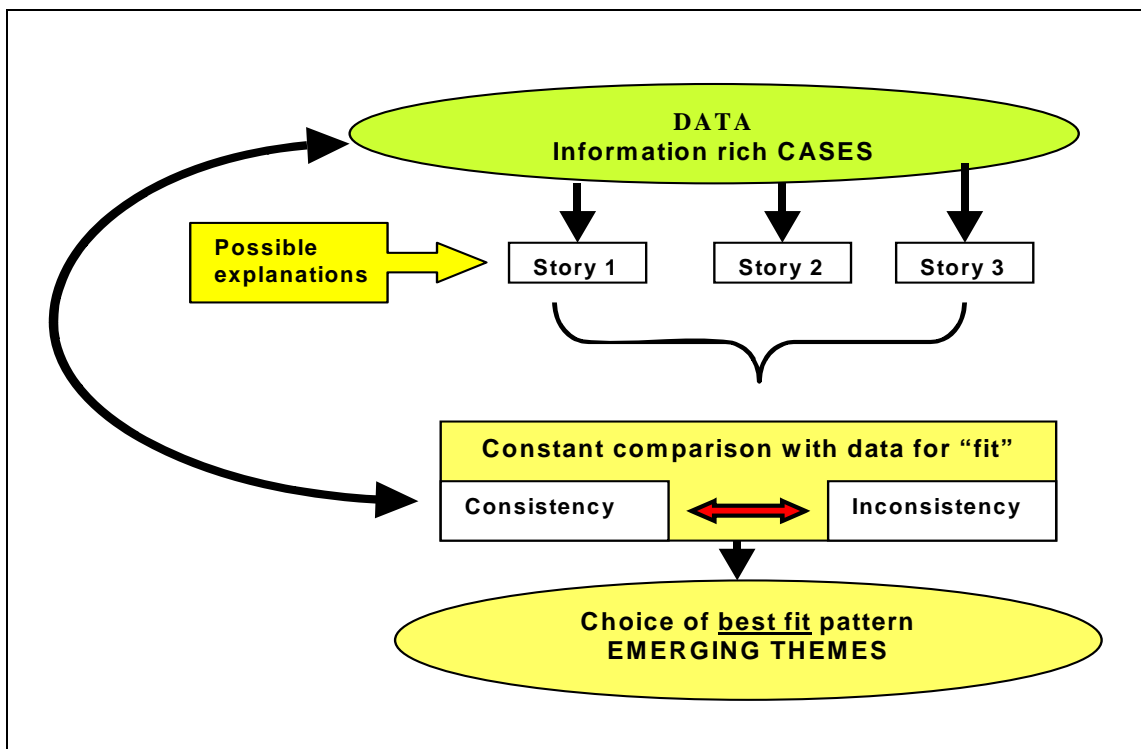


Figure 2 The process of emerging patterns from data

The themes emerging from interpretation of entrepreneurial social realities embodied in case studies were then analysed in three phases, as illustrated in Figure 3.

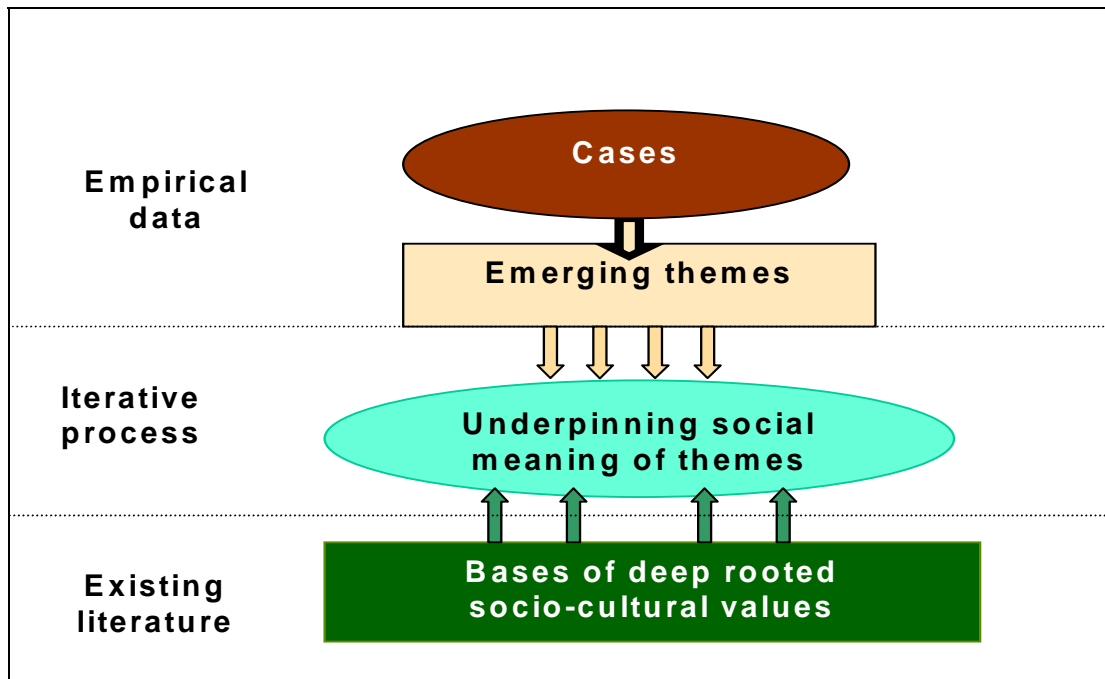


Figure 3 Research steps towards exploring deep-rooted social reality

Themes emerging from the empirical data require further iterative process to explore the social meanings underpinning particular actions. These social meanings are interpretations of socio-cultural realities in the context, based on understanding how entrepreneurial behaviours fit in the society and culture. The literature about the historical origins of religions and politics also contributes to understanding the deep-rooted reality of behavioural patterns and actions within society. Together, the analysis allows us to see the subjective world of entrepreneurial activity which influences objective reality.

Conclusion

Understanding of socially and culturally bound social actors, social actions and social outputs in entrepreneurial activity must be subjective. This includes: a) institutional characteristics, b) the interface between cultural values and business, and c) historical and cultural forces which impact on entrepreneurship. Our conclusion was that this has to be explored through bottom-up translations of actions consistent with the beliefs and values of the actors involved. This led to the need for a qualitative methodology to ground the reality of human behaviour embedded in deep-rooted cultural and social contexts. Thorough interpretation of holistic case studies that are capable of capturing the actors' viewpoints brings appropriate insights to the field of entrepreneurship.

References

Adler, N. (1997). International dimensions of organisational behaviour. ITP Press.

Alawattage, C. G. (1998). "Cultural dynamics of leadership: A monographic study of functional and dysfunctional forms." Sri Lankan Journal of Management **3**(1&2): 52-73.

Bloodgood, J. M., H. J. Sapienza, et al. (1995). The dynamics of new business start-ups: person, context, and process. Advances in Entrepreneurship, Firm Emergence and Growth. J. A. Katz and R. H. Brokhaus Sr. London, JAI Press INC, Greenwich, Connecticut. **2**: 123-144.

Budhadasa, S. (1999). "Entrepreneurship development: How valid are the models used in Sri Lanka." Economic Review(January- March -99): 22-25.

Bulmer, M. (1978). Social policy research. London, Macmillan.

Bulmer, M. (2000). Sociological research methods : An introduction. London, Macmillan.

Burgelman, R. A. (1983). "Corporate entrepreneurship and strategic management: Insights from a process study." Management Science **29**(12): 1349-1363.

Cafagna, A. C. (1960). A formal analysis of definitions of culture. Essays in the Science of Culture. G. E. Dole and R. L. Carneiro. New York, Thomas Y Crowell: 111-132.

Covin, J. G. and D. P. Slevin (1991). "A conceptual model of entrepreneurship as firm behaviour." Entrepreneurship Theory and Practice **18**(1): 7-25.

Denzin, N. K. and Y. S. Lincoln (2000). The handbook of qualitative research. Thousand Oaks, Calif., Sage Publications.

Eisenhardt, K. M. (1989 a). "Building theories from case study research." Academy of Management Review **14**(4): 532-550.

Fernando, A., W. A. J. (1993). What should be our priority: Development of entrepreneurs or self-employed persons, whether our strategy needs re-thinking or not. Karmantha-Industrial Development Board-Colombo, Sri Lanka. **1**: 1-6.

Fink, S. L., R. S. Jenks, et al. (1983). Designing and managing organizations. Homewood, Ill, R.D. Irwin 1983.

Gamage, H. R. (1989). Entrepreneurial characteristics and growth of small business ventures. The Postgraduate Institute of Management. Colombo- Sri Lanka, University of Sri Jayawardenapura: 1-70.

Gamage, H. R. and N. Mendis (1999). Entrepreneurship development through distance education in Sri Lanka (a case study). Pan Commonwealth Forum on Open Learning-Empowerment of Knowledge and Technology., Brunei Darussalam, 1st- 5th march !999.

Gill, J. and P. Johnson (1997). Research methods for managers. London, Paul Chapman 1997.

Glaser, B. G. and A. L. Strauss (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago, Aldine.

Hofstede, G. (1980). Culture's consequences : International differences in work-related values. Beverly Hills, Calif., Sage Publications.

Hofstede, G. (1984). "The cultural relativity of the quality of life concept." Academy of Management Review **9**(3): 389-98.

Hofstede, G. (1993). "Cultural constraints in management theories." Academy of Management Executive **7**(1): 81-94.

Hofstede, G. (1994). "Cultural constraints in management theories." International Review of Strategic Management **5**: 27-48.

Hofstede, G. (2001). Culture's consequences : comparing values, behaviors, institutions, and organizations across nations. Thousand Oaks, Calif. ; London, Sage Publications.

Hopper, T., M. Annisette, et al. (1995). "Some challenges and alternatives to positive accounting research." Accounting Theory: A Contemporary Review.

Husserl, E. (1964). The idea of phenomenology.

Hutchins, E. (1980). Culture and inference. Cambridge, Harvard University Press.

Kao, H. S. R., D. Sinha, et al., Eds. (1999). Management and cultural values. London, Sage Publications Ltd.

Kuhn, T. S. (1996). The structure of scientific revolutions. Chicago, IL, University of Chicago Press.

Leonard, D. (1985). Wellsprings of knowledge: Building and sustaining the source of innovation. Boston, Harvard Business School.

Low, M. B. and I. C. MacMillan (1988). "Entrepreneurship: Past research and future challenges." Journal of Management 14(2): 139-161.

Mason, J. (1996). Qualitative reserching. London, Sage Publishing Ltd.

Matza, D. (1969). Becoming deviant. Prentice-Hall, Englewood Cliffs N.J.

Merriam, S. B. (2001). Qualitative research and case study applications in education. San Francisco, Jossey-Bass Publishers.

Milner, A. (1994). "Cultural materialism, culturalism and post culturalism: the legacy of Raymond Williams." Theory, Culture and Society: 43-73.

Mintzberg, H., D. Raisinghani, et al. (1976). "The structure of 'unstructured' decision processes." Administrative Science Quarterly 21: 246-275.

Nanayakkara, G. (1984). "Cultural imperatives of policy science." Vidyodaya Silver Jubilee Issue: 85-103.

Nanayakkara, G. (1999). Culture and management in Sri Lanka. Colombo- Sri Lanka, Postgraduate Institute of Management, University of Sri Jayawardenepura.

Nanayakkara, G. and S. Ranasinghe, Eds. (1984). Management in a socio-cultural context. Proceedings of Two international Seminars Held in Colombo 1982 and 1983. Colombo-Sri Lanka, German Cultural Institute.

Patton, M. Q. (1990). Qualitative evaluation and research methods. Newbury Park, Calif. ; London, Sage Publications.

Patton, M. Q. (2002). Qualitative research & evaluation methods. Thousand Oaks, CA, Sage Publication.

Perera, C. T. A. (1990). Social power bases of low country Sinhala entrepreneurs. The Postgraduate Institute of Management. Colombo, University of Sri Jayawardenapure: 8.

Ratnasiri, C. H. (1999). Contextualization of uncontextualized managment control systems: A Weberian perspective. The Annual Research Sessions 1999 of FMSC, University of Sri Jayawardenapura- Sri Lanka, University of Sri Jayawardenapura.

Reynolds, P. D. (1991). "Sociology and entrepreneurship: Concepts and contributions." Entrepreneurship: Theory and Practice **16**(2): 47-70.

Robinson, P. B. and K. G. Shaver (1995). Metatheory and entrepreneurship research. Advances in Entrepreneurship, Firm Emergence and Growth. J. A. Katz and R. H. Brokhaus Sr. London, JAI Press Inc, Greenwich, Connecticut. **2**: 97-120.

Runciman, W. G., Ed. (1978). Max Weber: Selections in translation. London, Cambridge University Press.

Sexton, D. L. (1987). "Advancing small business research: Utilizing research from other areas." American Journal of Small Business(Winter): 25-30.

Singh, R., G. E. Hills, et al. (1999). Examining the role of self-perceived entrepreneurial alertness to the opportunity recognition process. The Academy of Management Annual Conference, Chicago, IL.

Strauss, A., L. and J. Corbin, M. (1990). Basics of qualitative research : Grounded theory procedures and techniques. Newbury Park, Calif., Sage Publications c1990.

Strauss, A. L. and J. M. Corbin (1997). Grounded theory in practice. London, Sage Publications.

Wickramasinghe, D. and T. Hopper (2000). Cultural political economy of management accounting controls: A case study of chronological episodes of budgeting in a mill. Interdisciplinary Perspectives in Accounting Conference, London, CIMA.

Yin, R. K. (1994). Case study research: Design and methods. London, Sage.

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