

Intellectual Capital in a Recession: The SME Entrepreneurs' View

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Abstract

Intellectual Capital encompasses most areas of an organisation. Although many activities are not labelled as either the pursuit of Intellectual Capital measurement or its realisation, they are integral to the understanding of this area. It is generally accepted that Intellectual Capital consists of Human Capital, Structural Capital and Relational Capital. The reported study unpicks through a qualitative investigation of the perception of Intellectual Capital by entrepreneurs in SME's. The specific industrial context is the precision engineering industry in the United Kingdom. The study explores how useful entrepreneurs in this target population perceive Intellectual Capital to be to them, and highlights the value that Intellectual Capital exploitation adds to their organisations. The general context is one of financial insecurity and contraction of demand, coupled with increasing operational pressure from international competitors with lower cost structures. The general conclusion is that entrepreneurs who understand the principles of intellectual capital and its exploitation are better suited for the challenges of entrepreneurial pursuit in a recessionary period from the results the Sector of Operating Efficiency (SoOE) was identified.

Keywords: *Intellectual Capital, Recession, Entrepreneur*

Introduction

Intellectual capital is seen as an integral part of the workings of a modern organisation. The exploitation of this complex phenomenon can be the difference between the death and survival of an organisation Stewart (1997). It is therefore critical that a clear understanding of this concept exist within the managerial strata of the organisation, with clear comprehension of what are the component elements of Intellectual capital and how it can be harnessed for the perusal of the organisational objectives. SME's were used in this study because they are vitally important to the economic stability of a country. The British government claimed that the majority of the working population are employed in the SME sector and that in 2008 of the 4.8 million businesses in the UK, 99.9% were SME's. This research will focus on the perception of Intellectual Capital by entrepreneurs of SMEs; there are various definitions for SMEs. The British Banker's Association devised its own definition when its voluntary code of conduct was introduced in March 2008. Small businesses are defined as entities with a turnover of less than £1million. There are also definitions proffered by the European Commission in Recommendation 2003/361/EC and in the United States the Small Business Administration Size Standards Office also offers definition for the size of a business entity. Sections 382 and 465 of the Companies Act 2006 in the United Kingdom define SME for the purpose of accounting requirements, a small company is defined as one that has a turnover of not more than £6.5 million, a balance sheet total of not more than £3.26 million and not more than 50 employees. A medium-sized company has a turnover of not more than £25.9 million, a balance sheet total of not more than £12.9 million and not more than 250 employees. For the purpose of this study the British government's definition will be adopted. In SME's the entrepreneur is usually inextricably linked to the decision making process within the organisation and therefore there is a greater need for them to have a good understanding of intellectual Capital if the organisation is to exploited the potential benefits of this concept. This will necessitate additional training and awareness programmes for entrepreneurs.

Literature Review

Intellectual capital is defined by Stewart (1997) as the “collective brainpower” that is difficult to identify and even more difficult to deploy effectively. The organization that develops intellectual capital and exploits it effectively has the opportunity to gain a competitive advantage over other firms that have failed in this regard, Stewart (1997). It is generally accepted that Intellectual Capital consists of three elements, Human Capital, Structural Capital and Relational Capital, Bontis (1998) Tovstiga and Tulugurova (2009), Bezhani (2010), Montequín, Fernández et al. (2006), Stewart (1997), Sullivan (2000), de Pablos (2003)

Human capital has long been identified as a critical strategic resource for new firms, according Schultz (1994), the term “human capital” has been defined as a key element in improving a firm’s assets and employees in order to increase productive as well as sustain competitive advantage. Cañibano, Sánchez et al. (2002) defines Human Capital as

“the knowledge that employees take with them when they leave the firm. It includes the knowledge, skills, experiences and abilities of people. Some of this knowledge is unique to the individual, some may be generic.” Cañibano, Sánchez et al. (2002)Pg3.

Petty and Guthrie (2000) argued that the aspect of Intellectual capital that has received a significant amount of attention is the area of human capital, a key element of which was the reporting of human capital. Secondary is the investigation into the relationship between the recording and reporting of human capital and internal human resource management and development. Rastogi (2003) stated that human capital is an important input for organizations especially for employees’ continuous improvement mainly in areas of knowledge, skills, and abilities.

Tovstiga and Tulugurova (2009) highlighted that human capital can be further sub-divided into three causative components:

- a. Competence, these are the capabilities which embody the organisation’s strategically relevant knowledge and pertinent skill sets that are linked to achieving organisational objectives through its people.
- b. Attitudinal, these are the behavioural dimension of people-centred knowledge and attitudes including motivation, mindset and attitude to risk, where the management gets the “best” out of the employees and themselves.
- c. Intellectual agility, this encompasses the organization’s predisposition to move quickly and flexibly, to imitate and at adapt in the face of changing competitive environments and business demands, this is extremely important in dynamic business environments.

From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Following the work of Lepak and Snell (1999) which argued that a firm’s human capital has two dimensions which are value and uniqueness. Firms indicate that resources are valuable when they when these resources

facilitate improving effectiveness, capitalizing on opportunities and neutralizing threats. To foster the growth of Human Capital the organisation must use more of the knowledge and skills of the employees and in time more people will have developed the skills and expertise that is useful to the organisation. To achieve these ideals the organisation needs to provide the opportunity and culture for Human capital to express itself. This objective can be achieved by the effective utilisation of another pillar of Intellectual capital; Structural Capital.

Sullivan (2000) defines structural capital as the support or infrastructure that the organisation provides for its human capital. This support can be direct or indirect; direct support includes the physical elements like computers, desks and offices and the intangibles like information systems, software and established company procedures. Indirect support will include items such as electricity, the plumbing and intangible elements such as strategic plans, payroll systems and cost structures. Cañibano, Sánchez et al. (2002) defines structural capital as the knowledge that stays within the firm at the end of the working day, these authors highlighted organisational flexibility, routines and procedures, information technology and intangible assets under legal protection as examples of structural capital. Structural capital describes those systems which are used to manage the human capital of the organisation and is therefore seen as the facilitator for innovation and the incubation of ideas that may lead to the organisational success. In order to undertake the role of organisational facilitator the facets of structural capital must be defined.

The elements of structural capital are generally referred to as structural intellectual assets. They include the organisational culture; which plays a vital role in the production and harnessing of Intellectual capital. Culture is generally defined as “the way we do things around here”. Authors such as Stewart (1997), Sánchez-Cañizares, Muñoz et al. (2007), Bontis (2001), Hendry (1999) have highlighted the importance of the organisational culture as the influencer of the content and process of communication, the views of the shared, the formulation of objectives and the concept of belonging to the organisation, Swart (2006).

The organisational structure can also influence the speed and channels of communication with an organisation. This is a point that has been covered extensively in the in fields of organisational management and organisational behaviour, with authors like Westley and Mintzberg (1989), Miller (1986) covering this area in great detail. McMillan (2002) argued that if the structure of the organisation and the principles that underpins its architecture is not aligned to the core purpose then the organisation has a very real possibility of failure. This clearly shows that there is no homogenous organisational structure that will guarantee success. Therefore, for effective operations the organisational structure must be consistent with the need of that organisation. The structure of an organisation may fall into one of the established categories of organisational structures; i.e Bureaucracy, Divisionalised Structures and Strategic business Units, and De-structured business. It is importance that the structure of the organisation is as such that is provides the channels of communication that will maximise the output and creativity of the human capital within the organisation because it must be remember that the function of structural capital is to support the activities of human capital Kim and Kumar (2009).

The ideology of management or management Philosophy is another important aspect of structural capital; it is seen as a set of beliefs used by an individual in a management position to guide the decision making process, WebFinance Inc. (2011). Management Philosophy will underpin the operations of the organization, as it is the managers who will directly influence the culture and atmosphere that exists within the organization. Linked to management philosophy is management processes; the fundamental tasks for management is planning, organising and controlling the activities within an organisation. These aspects are defined by Fox (2009) as the organic functions of management, but while most studies on management are focused mainly on the development of conceptual tools, analytical techniques and skills, management processes is concerned with the interplay and balance of the organic functions to ensure proper interaction, Fox (2009). Management process is the reality for most managers and it is in the effective “management” of this process that the manager can add value and leadership to the organisation.

Finally quality assurance must be addressed in any discourse on structural capital, quality assurance must be robust because the reputation of the organisation is normally linked to the quality of its products and services. Quality assurance is often used interchangeably with quality control (QC), it is a broad concept that encompasses all policies and systematic activities implemented within a quality system. Quality can be very subjective; the perception of the organisation or its products can also be seen as a mark of quality, with firms such as Rolls Royce being seen as having very high quality standard. In the structural capital sphere it is vitally important that the quality of the output of the organisation must be such that the reputation of the organisation is not damaged. There are some internationally recognised standards for quality such as ISO 9000, and CE Mark; many firms display these as badges of the quality of their products or processes. Once the structural capital is addressed, then this will lead seamlessly into addressing the third Pillar of Intellectual capital which is relational capital.

Relational capital is the most controversial element of Intellectual Capital with some authors including Sveiby (1997) Stewart (1997) Sullivan (2000) defining this element variously as customer capital or external capital. While these definitions all have their virtue they are limiting the discourse on this element of intellectual capital because relational Capital deals with the networks and these can be both internal and external of the organisation; though the relationship with customers is very important it is not the only one that must be considered in this area and the other relationship must be critically evaluated. Relational capital is the knowledge embedded in the relationships with any stakeholder that influences the organization’s life. do Rosário Cabrita and Vaz (2005)

Relational capital looks at the relationships in which the organisation is involved, these can be external and internal they can involve customers and suppliers, financiers to name a few; therefore the categorisation of relational capital as customer capital or as external capital can disregard some significant elements of this component of Intellectual Capital. According to Kianto, Hurmelinna-Laukkanen et al. (2010) relational capital refers to the ability of the organisation to interact in a positive manner with the external stakeholder and in so doing maximise the wealth generation potential of the human and structural capital. Relational capital builds on the relationships between the organisation and its customers, suppliers, competitors, partners and interdepartmental relationships especially in cases where there are

separate strategic units or other form of decentralisation in place. These relations are sometimes converted to intellectual property through instruments such as trademarks and trade secret agreements Solitander and Tidström (2010).

The literature on intellectual capital has shown that in theory Intellectual Capital is a value adding phenomenon, but management has to put the necessary structure in place and foster a culture that is conducive to the development of human capital and also to build the relationship, (relational capital). In many SME's the entrepreneur is normally a major influencer of managerial direction of the organisation. Therefore the onus is on the entrepreneur to institute the necessary structures and processes that will ensure that the work environment is one that will facilitate the development of the company's Intellectual Capital.

This paper investigates Intellectual capital in the context of financial insecurities and contracting demand, i.e. a recession. A recession is seen as "a significant decline in economic activity spread across the economy lasting more and a few months, normally visible in real GDP, real income, employment, industrial production and wholesale-retail sales, Eslake (2009). There is a rule of thumb that states three consecutive quarters of negative growth in real GDP constitutes a recession, but the National Bureau for Economic research in the USA argues that the decline in GDP do not have to be in successive quarters and reference is made to the recession of 2000-2001 where there were three quarters of negative growth but there were not successive.

Eslake (2009) argues that a more meaningful definition of a recession is an extended period of below trend or below potential growth. However there is a degree of subjectivity in this as the potential for growth is difficult to measure. But this approach has proved useful because it takes into consideration the fact that in countries with high rates of population growth and or high productivity, GDP growth does not have to be negative for the recession indicators such as rising unemployment to be evident.

There is another method that is used to highlight a recession and this is the measure of employment within the economy, if this falls by more than 1.5 % in any twelve month period then there is a recession, this measure was first advanced by Arthur Okun in the 1960's and is usually referred to as Okun's Law Eslake (2009).

Methodology

This research utilises qualitative research techniques, by definition qualitative research is exploratory and is used when the researcher is unsure of an outcome, trying to define a problem succinctly or seeking to develop an approach to the problem Yoshikawa, Weisner et al. (2008). This is the case as the researcher is proposing to use this study as an evaluation tool for further academic exploration in this area.

Ten interviews were conducted on companies chosen from the Reed Business database's classification of precision engineering. A preliminary telephone call was made to the company to ensure that they fulfil the criteria as defined above for SME. The data was collected using in-depth interviews, the results were coded into Nvivo and analysed.

IC is an area of study that is very difficult to define and quantify and this result in the need for a wide ranging reflective discourse when exploring its theoretical basis, Roos (1998). Due to the fact that IC involves tacit knowledge which can often be "non verbal" or in some cases "non verbalable", intuitive and unarticulated Hedlund (1994) qualitative methodology was chosen as it allows the flexibility to explore the theme under consideration in greater detail and to explore area/ideas of interest that may have developed during the data collecting process.

The selected companies were contacted via telephone to explain the nature of the study the data to be collected the method of collection and to seek their willingness to participate in the process. 12 companies indicated that they will be involved and 10 interviews were conducted, a convenient time could not have been agreed with the other two companies to allow sufficient time for data collection and analysis given the time restriction for completing the paper.

In preparation for each of the interviews the respondent was given an explanation of some of the common terms and phrases that were going to be used in the interview and they were given the opportunity to ask questions to clarify any terminology or concerns that they may have had. Care was taken to speak to the owners or the most senior person in the company as they tend to have a more holistic view of the organisation. This approach is consistent with Welch, Marschan-Piekkari et al. (2002).

An interview guide was prepared and used in the interviews; this was done so that there was consistency and comparability in the data collected. The interviews were anonymised for confidentiality, so data such as those relating to name of the organisation were omitted as suggested by Chell (2004). The guide had three distinct parts, a. about the organization, b. about intellectual Capital and c. about the recent recession.

The respondents were asked a range of questions about their organisation, their dealings with intellectual capital, the impact of the recession, and the positioning of the organisation within the industry.

The interviews were recorded and later transcribed by the author, the reason for the audio recording is that it allows for a freer flow to the interview and the quality of the data collected was better and the transcription was more thorough than if relying solely on notes that were taken during the interview, this method also reduced the time commitment of the respondent which was welcomed by all respondents, this is also supported by Grindsted (2005).

Findings and Discussion

Many of the entrepreneurs have confused Intellectual Capital with Intellectual Property, some were vaguely aware of the concept of intellectual Capital to varying degrees. They conduct activities that are elements of intellectual capital management, but perceived these as normal business function process. Many entrepreneurs see their organisation as place where innovation flows and culture is one that encourages communication and sharing. It would have been interesting to get the opinion of the staff concerning the work environment, because at times there is a disconnect between what management perceives and the reality for employees.

The general consensus is that intellectual capital management has the potential to improve business processes and the value that can be harnessed for employees use through training, culture, networking and collaborating with various stakeholders in the pursuit of excellence. It was also found that there is no practical evidence of intellectual capital management in the engineering industry; and none of the respondents were aware of any such model in place. They were concerned that this study exploring, Intellectual Capital in the engineering industry, may be an attempt to extrapolate service solution to a product orientated industry.

The diagrams below present a pictorial representation of the general themes that emerged for each of the elements of Intellectual Capital:-

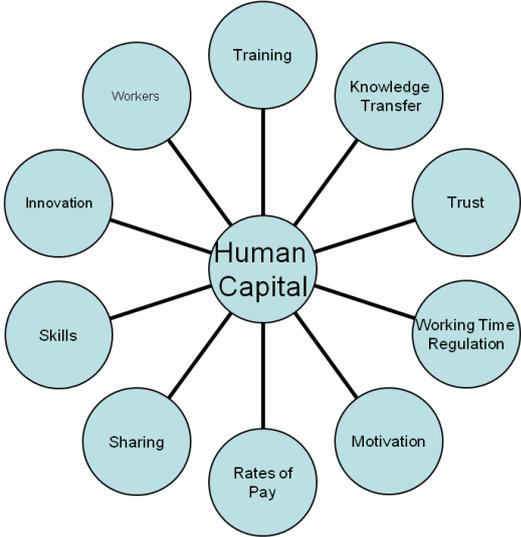


Figure 1: Human Capital

Figure 1 shows the words most frequently used by the respondent when discussing human capital.

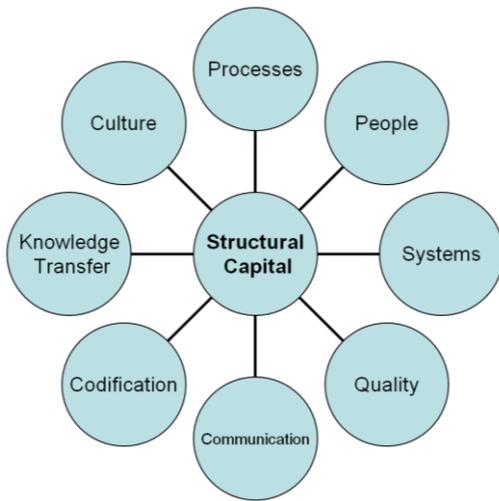


Figure 2: Structural Capital

Figure 2 shows the words most frequently used when discussing structural capital.

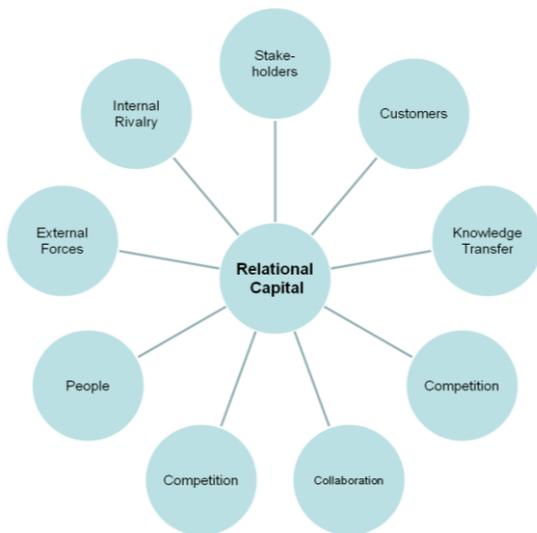


Figure 3: Relational Capital

Figure 3 shows the words most frequently used when discussing relational capital. There is a genuine focus on relational capital, the entrepreneurs saw relationships, as essential for business survival and progress, there was a bias towards accentuating the positives in the relationships, with most entrepreneurs avoiding the questions of competition and negative implications of any adversarial relationship with regulating bodies. There were concerns that relationship can become adversarial during periods potential constriction becomes this is the period when defaults are mostly likely to occur.



Figure 4: Recession

The recession is genuinely viewed as a period of successive decline in GDP. Figure 4 shows the general themes that emerged when considering the recession. In this period the entrepreneurs' attitude to risk have become more conservative with only one of the ten stating that they are vigorously seeking new investment opportunities. However, they were also very optimistic about the future prospects of their respective companies.

The entrepreneurs were willing to cooperate with local competitors in an attempt to eliminate international threats but it was not willing to share valuable secrets to attempt to achieve this aim. Currently they are not experiencing any immediate threat from international competitors; to the contrary, they have noticed the very opposite, enquiries for quotations coming from potential international customers.

All relationships are critical but the respondents considered relationship with customers to be of greatest importance as they are the reason for being in business. They actively collect data about customers through official mandatory data, such as demographics and VAT details; they also collect data about customers through various loyalty schemes.

All the respondents were of the view that human capital is critically important to success, many processes that are unique to organisation were not protected and they didn't see these processes as strategic business assets. Many claimed to have effective succession planning but when asked to identify who will replace them if they left the organisation the very next day they could not. They were all in agreement that the effective management of intellectual capital can add value to their organisation and more need to be done to increase the awareness of intellectual capital to SME's in the engineering sector.

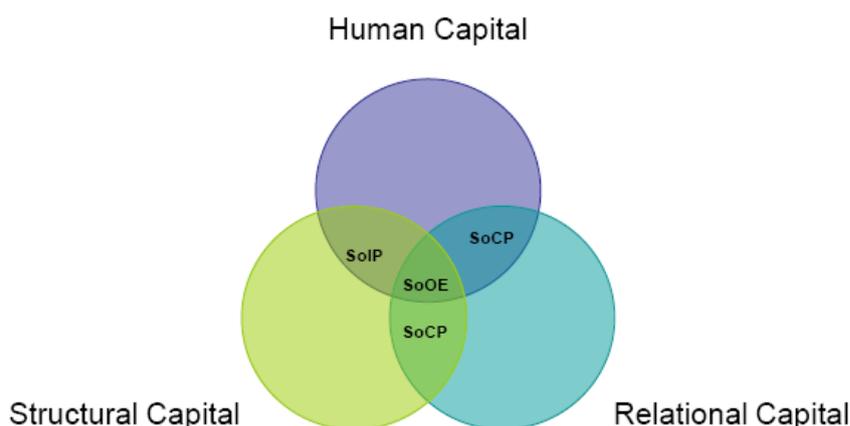


Figure 5: Optimum IC Structure

Figure 5 is the culmination of the interrelationship between the elements of intellectual capital that were investigated. From the data that was collected the author devised the model in figure 5. Where the interrelationship is mainly between human capital and structural capital, then there are mainly organisational based efficiencies and innovation the author has defined this area as the Sector of Innovative Potential (SoIP). Where the interrelationship is mainly between human capital and relational capital, then the area is mainly characterised by collaborative efficiency and the author has define this area as the Sector of Collaborative Potential (SoCP). Where there is an effective three way interrelationship between human capital, relational capital and structural capital, intellectual capital has the potential to add the most value to the organisation; the author has defined this area as the Sector of Operating Efficiency (SoOE).

Conclusion:

It is clear from the results that intellectual capital adds to the overall performance of the organisation. Entrepreneurs are concerned with the level of intellectual capital with in their organisation. They pursue activities that fall under the construct of intellectual capital management unknowingly, but there is a clear disconnect between the theoretical abundance of intellectual capital literature and the practical implementation of this phenomenon. This is consistent with the findings of Carlucci and Lerro (2010). Though there is a general awareness of intellectual capital by entrepreneurs there is not the requisite depth of knowledge that will allow for the harnessing of its potential and to tend the functional applicability and implementation of intellectual capital management.

In times of financial austerity many entrepreneurs see the pursuit of the ideals of intellectual capital management as a divergent from the core tasks of working towards ensuring survival and if possible the exploitation of opportunities that are available to the business. It is therefore important that those that address intellectual capital from a theoretical/academic point of view espouse the practical applicability and usefulness of

intellectual capital management and the value that the successful implementation will add to an organisation.

This study has the potential to be extended further by exploring the nature of the training the entrepreneurs will consider beneficial to them in the sphere of intellectual capital and also to exploring the sector of operating efficiency,(SoOE).

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