

BAM conference

.....

3RD-5TH SEPTEMBER ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM

This paper is from the BAM2019 Conference Proceedings

About BAM

The British Academy of Management (BAM) is the leading authority on the academic field of management in the UK, supporting and representing the community of scholars and engaging with international peers.

http://www.bam.ac.uk/

By: Dr Emmanuel A Ambe

University of East London

E-mail: E.Ambe@uel.ac.uk

Abstract

Purpose: Entrepreneurial capital has recently emerged as an important facet of new venture creation. Much of the evidence to validate such claims has emerged from research that focussed upon large businesses and multinational corporations. There exists a knowledge gap in SMEs. To bridge this gap, this study investigates the dynamics of entrepreneurial capital convertibility in SMEs.

Design/Methodology/Approach: A mixed-method approach was carried out capturing mixed data with owner-managers of SMEs in the United Kingdom. Quantitative data generated was analysed using SPSS and harmonized with a detailed faced to face interview process from case studies.

Findings: The results suggest that a mixed approach provides an informative process to explore entrepreneurial capital convertibility dynamics in SMEs.

Implication: A model of entrepreneurial capital convertibility dynamics is outlined, that reflects SME owner-managers' mental 'mind maps'. Suggestions are made to extend and validate the entrepreneurial capital convertibility model in future research.

Keyword: Entrepreneur, entrepreneurial capital, convertibility, owner-manager, knowledge management, strategic thinking, design thinking, small and medium sized enterprises, Case Studies (CS).

Word Count: 8,609

1. Introduction

In a dynamic environment where competition for resources is high, the aspect of entrepreneurship is gaining widespread ground. Being an entrepreneur is therefore becoming very popular. The entrepreneur is defined by Say (1980) as one who undertakes an enterprise, acting as an intermediary between capital and labour; responsible for identifying, organising and deploying the other factors of production in an uncertain environment so as to earn a return. Schumpeter (1934) developed this area in respect of the entrepreneur being an agent of creative destruction or put in simple terms, a change agent. The continuum of opportunity identification, innovation and return making is therefore seen as the process of entrepreneurship which involves the creation and innovation of valued ideas. There is however an issue on the long-term view of these creations as most fail within the first two years of start-up. Business start-up and continuous survival within a dynamic environment is crucial.

2. Literature Review

2.1 Entrepreneurship

Bhide (2000) describes entrepreneurship as a process which includes new-venture creation that is growth oriented and generates employment, as well as small businesses and microenterprises that may provide self-employment. Bygrave (2003) states that the process involves all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them. In light of the above, entrepreneurship is considered as an activity which includes the discovery, evaluation, and exploitation of an opportunity in order to offer something new to the market (Shane and Venkataraman 2000). This view agrees with Schumpeter (1934) view of the entrepreneur as a change agent who creatively destroys institutional patterns and creates new value. Shane (2003) provides the steps in the entrepreneurship process as perception of opportunity, discovery, exploitation and a strategy for execution. It is necessary to look at the main subjects and objects of this topic for syntheses. This study strives to situate these capabilities within a long-term view for SMEs.

2.2 The owner-manager and entrepreneurship

According to Chell (2008, p11), owner-managers can be divided according to their intentions and outcomes: "those with entrepreneurial intentions but non-entrepreneurial outcomes are termed 'unrealised entrepreneurs'; those exhibiting entrepreneurial intentions and entrepreneurial outcomes are 'realised entrepreneurs'; those revealing non-entrepreneurial intentions and non-entrepreneurial outcomes are 'realised non-entrepreneurs'; and those with non-entrepreneurial intentions who demonstrate entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'non-entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'non-entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'non-entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'non-entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'non-entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes are 'emergent entrepreneurial outcomes entrepreneurial outcomes are 'emergent entrepreneurial outcomes entrepreneurial outcomes entrepreneurial entrepre



Figure 1: Intentions of owner-managers

The contrast that has been made between these types is that while unrealised entrepreneurs have a consistent strategy, emergent ones focus on internal operations. Realised entrepreneurs demonstrate both constant strategy and good internal operations. Realised non-entrepreneurs suggest more personal outcomes, while realised entrepreneurs emphasise business outcomes. Carland et al. (1984) class owner-managers as either entrepreneurs or small business owners, while entrepreneurs are defined by their goals of profit. This can therefore be seen in their differential in terms of strategic or design thinking abilities. Strategic thinking is more long term but requires an operational process in design thinking. A synergy of both strategic and design thinking might qualify an owner-manager as a realised entrepreneur. It can therefore be said that owner-managers differ from entrepreneurs based on their intentions and actions to generate an outcome. Entrepreneurs and owner-managers are, however, managers in their own right, with implications for decision-making and managing the convertibility process.

Whilst these thoughts persist, it is still suggested that the owner-managers need a combination of resources and a mix of strategic and design thinking abilities to be entrepreneurial and successful.

2.3 Entrepreneurial capital

Firkin (2003) argues that what really makes a business successful in the long run does not rely on the amount of financial capital possessed but a mix of these and non financial capital. Bourdieu (1986) break these up into four types of capital: economic, social, cultural and symbolic representing the financial and non financial elements. Audretsch and Keilbach (2004) simply describe it in terms of those factors or events which make it conducive for the creation of new firms by an individual or a team. However, Bonte et al (2008) argue that entrepreneurial capital is most likely to emerge from human capital when it is not only the production of new knowledge that is viewed as important, but also its commercialization. This is in line with organisational theory which suggests that businesses are social constructs (Sparrow 1998). These forms of capital are overlapping in nature and may require segregation and identification for thorough convertibility and wealth optimisation.

Considering its overlapping nature Shaw et al (2009) situates entrepreneurial capital mainly in terms of networks and relationships. This approach by Shaw et al. (2009) is the basis for the definition of entrepreneurial capital and its application in small and medium sized enterprises (SMEs) – defined as businesses with up to 250 employees and statement of financial position of up to £12.9 million. In considering convertibility, Firkin (2001) therefore focuses on the resource-based view of entrepreneurship (Barney et al. 2011) that considers various components (human, cultural, social and economic). Neira et al (2008) goes further to include organisational, psychological, cultural and institutional assets with a focus on owner-manager personality and leadership styles affecting the convertibility process. In-depth studies have been carried out in some of these, for example, knowledge in organisations (Sparrow 1998; 2001) which focuses on the cultural/psychological capital in SMEs, entrepreneurial education (Matlay 2009), focusing on human capital and its convertibility in the entrepreneurial process and social networks (Shaw et al., 2009), seen as the embodiment of all the other capital elements requiring transformation into various components.

2.4 Entrepreneurial Capital Convertibility

Lam et al. (2007) state that entrepreneurial capital convertibility concerns how each form of capital can be converted from and into other forms of capital. Entrepreneurial capital convertibility literature reveals evidence that an increase in entrepreneurial capital convertibility will lead to venture creation, growth and economic performance.

However, the question is how these forms of capital are converted in a particular context with the centrality of the owner-manager and its sustainability. In making a decision of allocation of resources, Sparrow (1998) suggests more focus on the design thinking. Audretsch and Keilbach (2008) have proposed the knowledge spill over model; Stringfellow and Shaw (2009) are in support of the overlapping nature of social capital amongst others resulting in the creation of new ideas and innovation. Which and whatever model or concept is right; the problem is its application in a continuously integrated and dynamic environment.

Researchers (Bosma and Levie, 2009; Audretsch and Keilbach 2008) amongst others are in agreement that entrepreneurial capital convertibility in small and medium sized enterprises shape innovation, speed up structural changes and introduce competition. Acs (2007) support

this where they found in their study that smaller firms are more innovative than larger firms in most industries, reflecting their dynamism mainly based on the leadership of owner-managers. Creative destruction of the economic structure with focus on strategic and design thinking reflecting innovations in products and processes are therefore credited to this dynamism and activities of SMEs. In this sphere, the impact of capital convertibility will influence managers to be more strategic and entrepreneurial. In therefore answering the question of what entrepreneurial capital convertibility dynamics is, a holistic design and strategic thinking approach for synthesis based on owner-managers' knowledge, personality and experience is required. This critically calls into play leadership styles and their application in SMEs. It could be inferred that entrepreneurial capital convertibility is an application of an owner-manager's mind or knowledge of resources and experience to transform new knowledge and products in a value- added way for continuous wealth generation through processes of design and strategic thinking.

Lam et al. (2007) note that Bourdieu uses the concept of symbolic capital to justify the perception that different forms of capital take from the views of different stakeholders. This concept indicates that even when owner-managers have indistinguishable amounts and types of resources, alternative values may be placed on them, which influences the convertibility process. Extending this to owner-managers and SMEs, it is seen as a continuum of tangible to intangible and vice versa from 'what I have' to 'what I know', 'who I am' and 'who I know'. From this viewpoint, Firkin (2001) states that the concepts of entrepreneurial capital and its transformation are based on the total resources that a person owns and the value placed on it. He therefore considers convertibility as a dynamic process over the life cycle of a business and the owner-manager needs to synthesis his knowledge and experiences with his personality which may lead to strategic entrepreneurial decision-making.

By defining the entrepreneur and process of entrepreneurship, through examining the exogenous factors that may impact on owner-managers and the process of entrepreneurial capital convertibility, focus is made on the owner-manager knowledge and experience using the knowledge-based view of the firm with integration of capital elements. Based on this view of the firm, intangibles are the source of competitive advantage for SMEs given that it is the source of knowledge in SMEs through owner-managers' mental models, supporting the concepts of design thinking, strategic thinking and models of application of knowledge management practices in SMEs, with an emphasis on leadership styles based on personality traits. Martin and Hartley (2007) attest to this when they suggest that intangible assets are knowledge-based ones that are sources of future economic benefits and contribute to individual SME's exceptionality, providing the foundation for an owner-manager to act entrepreneurially, convert knowledge and gain competitive advantage based on the experience, visions and learning. Sparrow and McCabe (2011) suggest that conceptualisations of innovation from knowledge, complexity science and design thinking constitute the bedrock for assessing SME capital and convertibility, aiding in creativity and innovation. Their study suggests a pattern of owner-manager ongoing design thinking involving reflection and experimentation which enacts convertibility of capital to enhance absorptive capacity, innovativeness and agility.

2.5 Mapping the Convertibility Process

It can be argued that the nature of SMEs, centrality, leadership and entrepreneurial type of owner-managers mean that convertibility can be affected in terms of knowledge management development, strategic thinking, and design thinking. The study therefore strives to map owner-managers on the convertibility matrix and propose areas for continuous improvement. Businesses could then be divided into those showing high and low levels of convertibility. The most popular framework capturing such a knowledge process has been proposed by Kaplan and Norton (2004) in the strategy map as shown in Fig 3.



Figure 3: Conceptual Framework Source Kaplan and Norton (2004)

This is a holistic and integrated knowledge management tool framework showing the key forms of capital and a process for converting intangibles to tangible assets. All these revolve around the personality and knowledge of owner-managers of SMEs. To continuously survive however, owner managers will need to adapt to the dynamic environment by the redesigning processes

and thinking strategically whilst being entrepreneurial. Based on need to be dynamic, the following propositions can are outlined:

Proposition 1: Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs.

Proposition 2: Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner-managers of SMEs.

Proposition 3: Convertibility of entrepreneurial capital significantly depends on the design thinking of owner managers of SMEs.

3. Methodology

Face-to-face interviews capturing qualitative data with owner-managers was conducted for eight case studies (CS) of SMEs located in the West Midlands region of the United Kingdom. This is in line with similar studies using CS like de Bruin (2006); Martin and Hartley (2006). This also assess the knowledge of owner-managers and their thinking in strategic and design terms to assess key variables. Interviews with participants elaborated on questions to capture rationale and context information. Also, a case for regionalisation is made as in the case of Saxenian (1994); Svensson (2010); and Sparrow and Patel (2010). Appendix A provides a brief on the selected SMEs

It will be noted that the organisations vary quite markedly in their make-up and sector of operation and come from both the services and manufacturing sectors. The companies were purposely selected from a pool of random companies as a useful cross section for better representation and potential generalisation after pilot studies. In line with the propositions, variables were grouped under knowledge management, strategic and design thinking themes.

3.1 Knowledge management audit tool

Variables on the knowledge management tool, which captures variables on the strategy map, involved self-assessments against industry averages using a 6-point Likert scales in terms of:

- 1. Knowledge in use (what it is, where it comes from and its value to the company), corresponding to cultural capital.
- 2. Knowledge systems (effectiveness and efficiency, identification of knowledge sources and embedding of knowledge into systems), corresponding to human capital.
- 3. Knowledge renewal (knowledge sources and future knowledge acquisition), corresponding to social capital.
- 4. Knowledge economy management capability concentrating on change management, corresponding to performance.

Any ambiguity in the questions was addressed by the researcher. Additional discussion was often held on any issue beyond the sample to obtain a rating scale response from the owner-manager. Quantitative results are shown in appendix D.

The KM assessment tool produces a comprehensive report on areas that need improvement and assigns a business to one of four approaches towards adaptation to the knowledge economy (i.e. reactive, technology adopters, strategy and leadership oriented, and learning and co-production oriented)

Sparrow (2001) suggests a linkage between the knowledge, skills and attitudes of ownermanagers and their management teams in SME development.

3.2 Questions on design thinking

The self-assessments for this section explored the extent to which the owner-managers decision making in the review period could be described as Experimenting, Reflecting, Organising and Sensitivity. They were coded on 0-5 scales. Questions were asked in an interview format, with further discussion with participants. Results are analysed and shown in appendix B

3.3 Questions on strategic thinking

The strategic thinking self assessment was based on a strategy map framework. Using 2001 as the base year, owner-managers were asked to give a figure of improvement over time in the main aspects of the strategy, which included the financial, customer, internal and learning/growth perspectives. These perspectives represent the elements of cultural, human, social and financial capital and are analysed as shown in appendix C

3.4 Interviews

owner-managers were interviewed face to face for up to 2 hours. They were conducted between May and September 2012, recorded and transcribed.

4 Data Analysis

Data on convertibility, knowledge management, design thinking and strategic thinking were correlated with the levels of convertibility undertaken by the SME as in appendices B - D. The businesses are first ranked in order of their convertibility scores, as shown in Figure 2 below



Figure 2: Ranking of cases

Four SMEs with low ranking (CS4, CS6, CS7 and CS8) and three with high ranking (CS2, CS3 and CS5) were chosen for further analyses. One was neither at the top level or the bottom (CS1). This was further analyzed using an independent t-test to confirm any distinction. The means of the top three firms (CS2, CS3 and CS5) showed a marked difference from the others and the p-values were also markedly significant (p < 0.05), suggesting significant variability in scores between the two groups. Convertibility scores is expected to show a marked difference between SMEs in the higher rank against those in the lower one using the variables for entrepreneurial capital convertibility. The significant levels of convertibility given by the correlation will be further discussed, as well as other convertibility elements on a case study basis.

4.1 Results

The results presented show overwhelming support for the use of social, human and especially economic capital (Firkin, 2001; Lam et al., 2007; Shaw et al., 2009) in SMEs for convertibility into other aspects for business success with ease of strategy mapping and continuous adaptability.

4.2 Convertibility

Capital could be reinvested in both short term assets (working capital) and long-term ones (financial structure), in personal contact networks (Renzulli et al., 2000) and partnerships (Tether, 2005) for future gains. Using asset utilisation (working capital and financial structure), they are further reinvested in social contacts through partnerships in terms of stakeholders, development of brand image for positive customer perception, product or service attributes (social capital), development of organisational knowledge systems (human capital) and returning all these to the strategic alignment (cultural capital) of the company. This connotes a move from the operational to the strategic goals of SMEs, with each selecting a particular

strategy to fall under revenue growth or profitability. It therefore points to the fact that ownermanagers will always strive to convert their resources, even if they do not know their resource base. The question remains of whether it is advisable to do this without having an overview of knowledge systems and accessibility to the main sources of organisational key success factors. Before thinking of these capabilities, the owner-manager will need to consider a feasible customer value proposition in terms of product/service attributes (price, quality, availability, selection and functionality), relationships in partnerships or image in terms of branding (Kaplan and Norton, 2004). The question will need to be asked at what levels these are to be provided in order to enhance a particular strategy. This might reflect a more customer perception of the business.

Entrepreneurial owner-managers (Chell, 2008) need to then put in place the right environment (Nonaka and Takeuchi, 1995) and processes to meet customer needs, starting from understanding these needs, absorbing information from customers using this information to create or change products and services through externalisation and then sourcing the main inputs to assist in product development in the most efficient way to satisfy customers. This is seen as a movement along the supply chain in regulatory/social, innovative, customer relations and operations management processes. In using economic capital to develop product attributes and build brand images, owner-managers treasure the secrecy of their ideas and this is argued as an attempt to differentiate their offerings by using tacit knowledge which is not easily imitated.

Also, information from competitors aids in the convertibility of revenue streams to the functionality of products and services, as well as revenue streams to brand image. The internet is very instrumental for SMEs, who use their economic capital and make decisions on innovation processes, adapting their entrepreneurial values, developing their knowledge and IT applications and relating these to strategic alignment. This shows that the internet is a massive learning tool, used as a substitute for many processes to aid in meeting needs and the social capital aspect in terms of networks, generating new information and technical aspects of human capital development. Gathering information from customers also assists in working capital, to gain more cash through profits. Learning processes show that continuous benchmarking helps owner-managers in making decisions on investment in innovation processes, new knowledge, changes in values, upgrading IT applications through feasible strategies and then tactical and operational plans for efficient and effective use of resources.

Processes must, however, be supported by a learning and growth culture which is mainly supported by organisational culture and the leadership styles of owner-managers. Learning support and evaluation such as mentoring and coaching will aid operational matters in working capital management to develop better products and services for customer satisfaction. It is, however, necessary to evaluate the symbolic capital customers will attach to this.

4.3 Businesses suggesting a high level of convertibility

The analyses suggest that the owner-managers of these businesses are considering taking a lead in key aspects of business development and *standards setting leadership* for others in the convertibility of processes and markets in a dynamic environment. They therefore show ambition in increasing revenues and product/service attributes to satisfy customers by offering these to meet needs, as suggested by CS2 and CS5. As well as adopting a revenue/marketing strategy, they have taken approaches to understanding customer perceptions by analysing both internal and external customer personalities. In this respect, they seem to understand their business very well.

This may suggest a focus on actively converting knowledge through *communication* with teams and using ICT given that they have mastered systems, have developed know-how or expertise in their niches and ingrained these into their organisational culture through actions and practices and are now putting routines in place with a desire to be continuously flexible and adaptable. Considering market convertibility, customers will attach symbolic capital to differentiated services or product features but will not mind if undifferentiated support or services are provided, in order for the SME to further convert into economic capital.

This suggests a differentiation strategy or branding, where the product or services are differentiated and the support services stay the same. These businesses are constantly working hard to implement innovation and renewal to stay as market leaders, with key components being R&D skills and innovative capacity, information technology and systems, speed of innovation reflected in high levels of innovation processes, and operations management processes. They also become involved in major regulatory and social processes to maintain their image, are technologically- focused and able to sense changes in their immediate environments. The owner- managers of these SMEs have both a technological background, which may indicate a focus on routines (Feldman 2004) and indicate the importance of partnerships for their success, as well as an international presence.

The owner-manager of CS5 states that

"...the key to competitiveness in the future for us is which technologies and projects we go for through our customer and R&D function." (Owner-manager, CS5)

This suggests an intensity of convertibility between human and economic capital. There is, however, room for improvement in identifying cultural and social capital elements for convertibility. The intense reflective attitude of the owner-managers will surely add value to this aspect.

According to Sparrow (2001), such SMEs are adopting more 'knowledge ownership-oriented businesses', which shows recognition of the challenge of the knowledge economy and the need to have the capability to dedicate the energy to convert capital and enhance knowledge developments. They feel that they appreciate the value of particular aspects of their knowledge, emphasising ongoing evaluation of practices and believing that they understand the key aspects of personal understanding and experience that constitute their expertise. They are at a point where connecting of knowledge to processes can be gained through a strategy map. The owner-manager of CS5 confirms this by saying that

"...we have been involved with various projects with partners and I am on a course at the moment with a university and involved with other local universities. We have done technical work with many other universities and one of the things we have found in the past is breaking the problem link between universities and business and making a project idea work. That is where the difficulty is and we are trying to get around that link at the moment." (Owner-manager, CS5)

The more collaborative methods have the benefit of providing an opportunity for the investigation of diversity and uncertainty capability through absorptive capacity. Considering their market and the use of technology, these kinds of SMEs will need more of an incremental aspect to entrepreneurial capital convertibility, with a more mixed focus tailored to their needs, as their market is more stable and they can boost technological superiority of convertibility.

In considering a mix of convertibility between capital elements, the owner-manager of CS5 stated that

"...we do best practice networks and update leaning by doing courses internally and externally. We rely on trade bodies and we keep an eye on everything that is coming up, especially legislation, and it's just being aware about what is going on around you and taking necessary measures." (Owner-manager, CS5)

Such owner-managers are *performance-driven* and *achievement-oriented* individuals. Most prominent in this is the technical aspect, as well as the importance of being analytical. Being owner-managers in business for over five years, they also exhibit a holistic, innovative, conceptual and imaginative mind, which is associated with explorers, and future-oriented and risk-driven individuals. The owner-manager of CS2 has an IT background and the owner-manager of CS5 is an engineer, supporting the technical skills and human capital (CS2) level, together with a need for innovation and R&D (CS2 and CS5) in the analyses. This is also confirmed by van der Linden (2009), who states that convertibility is mainly between human and economic capital for customer satisfaction and revenue growth, pointing to technological strength.

According to the analyses, owner-managers adopting a *strategic approach* to knowledge management, a technological approach to strategic thinking and experimental; therefore standard setters in quality, carbon footprints, new technologies and new markets, and they lead their staff by convincing them of the need to share the same vision. For example, the owner-manager of CS2 states that

"...I do challenge everybody in the business in a nice way, very often with a smile on my face, and I do not want to stop doing that and I want to be that kind of person who questions and challenges." (Owner-manager, CS2)

CS2 and CS5 (services and manufacturing respectively) show this pattern. This leadership style of a standard setter corresponds to a strategy with the attributes of assertiveness and visionary.

On strategic intent therefore, the standard setting nature comes alive when the owner-manager of CS5 states that

"...quality will always be a primary driving force. What we are seeing now is more environmental issues, sustainability, carbon footprints - all linked together- and are selling points and big drivers for getting into markets. There are becoming not quite as

important as quality but they are up and coming and of great important to us." (Owner-manager, CS5)

This shows an attitude focussed on taking a lead in environmental issues, which will add to the reputation of the business. On adapting in a knowledge economy, the owner-manager of CS2 attests to attributes of this leadership style by stating that

"...we are unique in what we do around the world so we are looking at areas of the market and experimenting to an extent, though we are very knowledgeable about what the market requires, but we still occasionally have to roll the dice in different areas which is exciting but it's a challenge personally and whether we do or not." (Owner-manager, CS2)

These SMEs can then be represented in the conventional strategy map with focus on R&D, speed in innovation and ICT leading to differentiated products at a premium price. They adopt a mixed approach to their convertibility depending on the market and so flexibility and adaptability are paramount through a continuous need to think of future solutions and redesign.

Considering CS3, the key internal core competences here are the resources, knowledge, methods and techniques engrained in routines, which need rethinking. The customer value proposition here is to provide the right product at the right price, with very good service when offering value to customers and as a mature, capital intensive business, operations excellence is necessary for cost reduction so as to make a sustainable bottomline. Its strength is therefore in process convertibility. To convert capital from internal processes using this strategy from the customer perpective, it is necessary to have undifferentiated product/service features, as well as after sales service.

The owner-manager of CS3 states that

"...we are slightly different but it is very mature market and it is very difficult to be different in a saturated mature market because lots of people are very similar." (Owner-manager, CS3)

Key to this involves good operations management processes for incoming and outgoing processes, good workforce skills and sufficient employees to convert efficient operational processes, thereby leading to low production costs in order to increase the bottom-line.

Therefore, on the importance of a manager's job, he states that

"...at the end of the day, there will be a balance and people will find their levels and generally somebody who has an all round understanding of what is needed from a managing point of view, managing people, managing the technical side, looking at the environment, understanding what is needed in the business." (Owner-manager, CS3)

Sparrow (2001) suggests that this kind of SME falls between the comprehensive and knowledge ownership-oriented models. It has captured some aspects of knowledge in knowledge systems, with effective access and efficiency for some areas of its operations. It is at a phase which includes business process analysis and operationalisation in tight system

terms. A reflection of learning processes can gain knowledge from customers, best practice networks, suppliers, internet and universities to use in the process of convertibility. Learning is supported by the owner-manager of CS3, who states that

"...I think working with universities, knowledge transfer, working with academic bodies like this exercise is important because it is useful to reflect, think and exchange." (Owner-manager, CS3)

However, the volatility in the market is high, with turbulence in the economy. Technological uncertainty is low, as the business has invested in this, given its nature. In this situation, this kind of SME will need a more market form of convertibility, where social capital is stressed in order to keep the business afloat and able to compete. Management and customer perception is therefore needed for business development.

This is supported by the owner-manager of CS3 when discussing how important it is that a manager is right for a particular business:

"...I think the manager has to be right for the business, committed to the business and wants to work, understanding his roles and limitations in the business." (Owner-manager, CS3)

From the analysis, CS3 is adopting a strategic/leadership approach to knowledge management, a reactive approach to strategy thinking and a reflective approach to design thinking; further analysis shows the owner-manager to be conservative and assertive. He needs to take decisions as quickly as possible, such as in the case of making redundancies and directing the business in the right path. In considering strategic intent, he states that

"...quality service and price will always be important and if you haven't got it, then you are dead in the water. It's an absolute prerequisite." (Owner-manager, CS3)

This suggests a conservative attitude and a need for operational excellence, where products are made to the highest level using the best processes; as reflected in the background of the ownermanager being an accountant. Such managers are conservative, structured, organised and detailed; associated with task-driven people. This therefore corresponds to a directive leadership style, where the characteristics of the owner-manager are being definitive, firm/assertive, cautious and commanding. This style is linked to quick decision making and efficiency in processes.

4.4 Cases suggesting a low level of convertibility

The analyses suggest that management of these businesses take an approach in which there is considerable internal analysis of the workforce and suppliers, but little of the market, with the exception of CS6. They seem to follow a more backward supply chain method in relationships. It follows that management by perception may help owner-managers understand the needs of work teams and ways of motivating them to support the externalisation of tacit knowledge for use in conceptualisation of new ideas for new product/brand development. This will involve genuine collective face to face dialoguing. Given that they depend on retaining customers, new

ideas will create avenues for new customer acquisitions. They are mainly concerned about reducing their variable costs in a strategy of productivity and may be seen as reactive. Some, however, still show some ambition in meeting customer requirements. Considering a customer base, customers will attach symbolic capital to offerings where core product features are undifferentiated and support services are differentiated.

These SMEs seem to be very close to customers on more of an emotional basis. In a customer closeness strategy therefore, relationships are emphasised in which products and services are tailored to fit the customer needs, with components of market positioning through ranking of product/service and better-quality brands than competitors. They show a low level of gaining information from competitors and will need to keep customer expectations high in order to stay afloat and make sure product and service quality fit the market.

They have undertaken more analysis and believe they have the appropriate capabilities to deal with knowledge challenges. They seem to use structured analysis in an attempt to value facets of intellectual resources. This is stated by the owner-manager of CS8 when considering support:

"...I need to learn by talking to people and working with people so it's mixing with other people and using that system to learn. And again, the internet has a massive capability and when I want new information, one of the first things I do is Google it and you can find out all sorts of information, training, what others are thinking. So it's about using what systems are available." (Owner-manager, CS8)

On external support, the owner-manager of CS7 states that

"...I'm hoping the university can help me achieve my objective." (Owner-manager, CS7)

The SME can also profit from less quantitative visualisation of intellectual resources. This may bring into focus training issues for more widespread support of SMEs using an integrative model. Teams must therefore be trained in processes and a big picture presented, in which the intellectual capital is duly converted to tangible benefits.

Here, the market element or social capital seems to be favoured to the detriment of internal excellence. Processes are always needed to serve customers better through good quality of products and services and reduction in business risk. This market element aids innovation through best practice. Technological aspects are therefore low here and the process of convertibility of capital needs to adopt a more technical aspect, in which engineering, re-engineering or re-designing through design thinking is the focus.

The analyses show that they are adopting a strategic/leadership approach to knowledge management, a reactive approach to strategic thinking and a learning approach to design thinking, therefore adopting a more participative style. CS4 (manufacturing) and CS7 and CS8 (services) show this pattern. Attributes of this style include team building, coaching and reliance on trustworthiness along the supply chain internally and externally.

As stated by the owner-manager of CS8,

"...team working is going to get more and more important...it has always been important but it's the way teams work and how they work and there is now a lot of work done in the last couple of decades on team working and what it means." (Owner-manager, CS8)

According to the owner-manager of CS7,

"...people management is going to be very important and to maximise the performance from individuals because if everybody is aligned with the strategy, then you will have a successful business but that involves a major performance improvement culture and culture change as opposed to what we may have today." (Owner-manager, CS7)

In order to take a holistic view, CS4, CS7 and CS8 all need to focus more on their internal processes and specifically their technical processes in order to achieve their business objectives. The value proposition however may include undifferentiated products at high prices which can only succeed based on the SME's reputation through marketing strength for capital convertibility.

On the other hand, CS6 suggests a continuous focus on past mission and policies, which may not suit the present nor the future environment, even though there might be enough capital to sustain the business. They are also focused on productivity and asset utilisation, while attempting to gain revenue representing convertibility of human, cultural and economic capital respectively. In striving to satisfy customers, CS6, at a late stage in its life cycle, shows that it is bent on complying with specific customer needs and unique solutions to specific problems from the customer perspective, where the core product features, support and service provided are differentiated in an attempt to retain customers.

At the customer perspective level, the focus is on high quality of the output through good internal processes, with management focus on processes and alignment with its mission and policies in order to exceed the expectations of customers. However, without good operations management processes, cash flows may prove difficult to control because of a focus on a particular customer base.

The owner-manager of CS6, therefore, in aligning mission to business objectives states that

"...I think things that make businesses successful depend on what kind of industry you are in;, speaking from the business that we are in, a lot of it is about the knowledge that you have and are willing to give to your customer, the advice and support you provide to customers, building relationships and trust and it's not just about price." (Ownermanager, CS6)

She continues by saying

"...when you talk about competiveness, everybody automatically thinks about price; are you cost effective? are you cheaper? are basically the questions. I know from experience that our products are not the cheapest and are not the most expensive either

but what we do is we get it right and that's what is important and we are reliable." (Owner-manager, CS6)

This shows identification of human, cultural and economic capital in processes but little or no conversion. Even though the owner-manager is cognisant of knowledge, Sparrow (2001) reports that such leaders have made little or no attempt to manage knowledge, making very little analysis of their knowledge practices, and have not considered themselves to be in a position to respond to knowledge challenges.

Such a business may require support, as the owner-manager states when considering strategic intent:

"...you cannot stand still, you have to find different ways of doing things, having better and different products to get things moving." (Owner-manager, CS6)

Leadership here suggests that the market is very volatile and internal processes are not as strong as suggested by the owner-manager. Given high levels of market volatility and technological deficiency, a more radical convertibility is warranted, where business-wide aspects are taken into consideration by identifying the capital elements and working on them with partners to derive benefit and keep the business afloat.

The main elements here are from the learning and growth perspective, such as competences, values, culture and resources. The analyses show that CS6 is also adopting a strategic/leadership approach to knowledge management, a reactive approach to strategic thinking and a environmental sensitivity approach to design thinking, corresponding to a more charismatic leadership style.

According to the owner-manager of CS6,

"...a manager has to be the right person, someone who can put a team together and lead it. He/she needs to be motivated and inspired in leading a company because without that they will never be convincing as a manager." (Owner-manager, CS6)

This style can then be used to inspire a new generation of people, processes and customers in order to exceed satisfaction. Some of the identified attributes include inspirators and facilitators in the convertibility process.

In the case of CS6, convertibility is needed in learning and growth, internal, customer and financial processes. It therefore requires a radical rethinking of culture and remaking through support as much as possible. A transformation is suggested and reputation will be necessary in convertibility where undifferentiated products are marketed at high margins.

4.5. Propositions

Proposition 1: Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs.

The statistics on knowledge management (appendix D) show a significant association with entrepreneurial capital convertibility. Knowledge-in-use assessments suggest that businesses with high levels of convertibility were better at risk-taking, intuition and being proactive rather than relying on routine and past experiences. This suggests that these businesses undertaking convertibility at a high level, were taking a more proactive and market-oriented view. Knowledge systems also show that coverage or access to knowledge will not deter the entrepreneurial personality of owner-managers to think proactively in convertibility where SMEs can learn and make known their businesses through social media and also benchmark their processes. Knowledge renewal shows that businesses with owner-managers suggesting high levels of convertibility rely on their supply chains for continuous business and also use knowledge from competitors through performance indicators to improve their processes. This suggest that owner-managers of businesses achieving high levels of convertibility understand the knowledge economy, through analysing business and environmental factors, and its importance in the survival of their business models.

From this analysis, Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs fits the narrative.

Proposition 2: Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner-managers of SMEs.

This is argued to be through creative thinking, where information and organisational capital are necessary in the process. Information capital further suggests the importance of the internet and collection of information from customers, suppliers and competitors. The data suggested that if SMEs consequently become involved in holistic thinking, there may be implications in financial terms, which can boost convertibility over and over again. Organisational capital suggests softer issues such as staff motivation and culture, which are aligned to strategy or a shared vision to achieve goals. With this cycle, there can be convertibility from intangibles into cash to continuously sustain the business, as evident in the significant level of the financial perspective. Calculated trends also show support for information and organisational capital, as well as innovation processes and a marginal increase in operation management processes. There is also evidence of the relevance of owner-managers' human capital in the process of convertibility. Given this, we accept the following propositions based on key themes and correlations as in appendix C

Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner managers of SMEs.

Proposition 3: Convertibility of entrepreneurial capital significantly depends on the design thinking of owner managers of SMEs.

This shows that in many aspects the owner-managers' vision is dominant, due to their centrality in SMEs management. The conscious and entrepreneurial thinking of owner-managers in the entrepreneurship process will make them more aware of their external environment through experimentation, sensitivity and reflection, and increase the level of convertibility and business success. It is clear that owner-managers' mental models will form the basis for design thinking and mapping out of processes to implement in SMEs for entrepreneurial capital convertibility. Owner-managers of businesses thinking of converting capital at a high-level show greater levels of autonomous thinking and absorptive capacity through social networks as compared to those who suggest a low level of convertibility. This suggest that in addition to being sensitive to the environment and reflective on processes, they translate their intentions into actions to innovate on processes, products, markets and the environment. This is also supported by the correlations as in appendix B

4.6 Discussion of findings

The significance of the findings indicates that it is important for owner-managers to take a holistic view of convertibility by learning and focusing on solutions. In this way they will introduce concepts such as strategic thinking (Kaplan and Norton, 2004) for measuring knowledge assets and design thinking (Brown, 2008) for continuous flexibility and adaptability in searching for business solutions. For successful opportunity identification and convertibility, a convergence of owner-managers' and industry knowledge is critical. In changing times, this also suggests that owner-managers should take a look at themselves and their businesses by managing by perception (Sparrow, 1998), using more conscious analyses rather than relying on outdated processes and practices. This requires constant alertness, taking calculated risks, being socially competent and being aware of the dynamic environment, as these will lead to opportunity recognition and development.

Secondly, the findings support a directive and standard setter style of leadership for entrepreneurial capital identification and convertibility, while considering the valued needs of customers. Those cases suggesting convertibility at a low level may have to re-think and redesign processes as well as make a radical effort at sustaining business success by being more alert, taking calculated risks, and being innovative and more proactive. With this, knowledge management practices can be introduced into SMEs, using a mapping system that will align strategy in a cause-effect manner and provide management with a clear visualisation of objectives with room for flexibility and adaptability. This will help in the reproducibility of all forms of capital (Bourdieu, 1986) through continuous investment and option generation, creating wealth in the long term and helping in regional and national economic growth.

Furthermore, the findings provide the opportunity to identify, convert and accumulate capital, which has a major impact on the productivity of an SME, customer perception, performance and economic growth. The opportunity identification process results in increased entrepreneurial traits and subsequent convertibility. Likewise, it is important for owner-managers to understand the importance of the impact of their leadership styles on strategy with regard to entrepreneurial capital convertibility. It is also necessary for them to appreciate the multifaceted relationship between diverse forms of capital, their convertibility and SME performance. While this holds the view that cultural and symbolic capital is the core of business success, it also confirms Bourdieu's assertion that economic capital is the basis of capital convertibility and this could be more fluid by knowing what owner-managers know and understanding the environment in order to convert internal aspects through constant reflection

so as to propose better value for customers. Continuous convertibility and success may then benefit from the prominence of owner-managers' perception, intuition, leadership, values and human capital, but this requires investment in social capital (Stringfellow and Shaw, 2009; Shaw et al., 2009; Lam et al., 2007; Neira et al., 2008; Davidsson and Honig, 2003) for performance.

With a feel for the changing environment therefore, owner-managers can learn to adapt by being aware of their environment and making the right decisions based on the creativity innovation process in synthesis with other stakeholders for use in effective and efficient processes for a good value proposition in order to generate economic capital. On its own, such economic capital is susceptible to impairment and therefore an entrepreneurial mind is needed to continuously revalue this through constant learning. This suggests that some firms are more engaged than others in entrepreneurial capital convertibility. The work therefore found clear formative factors concerning owner-managers' strategic thinking, knowledge management development, leadership styles and entrepreneurial types in relation to entrepreneurial capital convertibility, as shown in Tables 1 and 2.

	Knowledge Management	Strategic Thinking	Design Thinking	Leadership Style	Entrepreneurial Type
CS2	Strategic/Planning	Technological	Owner thinking/ Knowledge proactive	Standard Setter	Realised Entrepreneur
CS3	Strategic/Planning	Reactive	Owner thinking/ Knowledge proactive	Directive	Emergent Entrepreneur
CS5	Strategic/Planning	Technological	Owner thinking/ Knowledge proactive	Standard Setter	Realised Entrepreneur

Table 1: Summary of businesses achieving convertibility at a high level

Table 1 indicates that in knowledge management terms, all the businesses suggesting convertibility at a high level suggest strategic planning in their business outlook. The managers favour an autonomous thinking regime based on interaction with outside constituents such as digital and online communities, from whom they learn new models for business approaches. They are seen as being knowledge proactive by absorbing necessary knowledge to enhance their processes. CS2 and CS5 are technologically oriented and are standard setters in their industries, suggesting quick learning, speed to market delivery and a position of realised entrepreneurs. They therefore do not only rely on previous strategic plans, but are alert and constantly revise these plans to adapt to the environment. CS3, however, portrays a reactive

stance to strategic thinking and a more directive leadership style, thereby suggesting a need to develop entrepreneurial behaviours to develop a more emergent entrepreneur who can be converted into a realised entrepreneur by reducing the learning curve effect (Argote, 1999) through organisational learning (Argote and Miron-Spektor 2011). These owner-managers therefore suggest high levels of converting capital as they are more entrepreneurial.

Table 2: Summary of cases achieving convertibility at low levels

	Knowledge Management Development	Strategic Thinking	Design Thinking	Leadership Style	Entrepreneurial Type
CS4	Strategic/Planning	Reactive	Sensitive/ Reflectors	Participative	Unrealised Entrepreneur
CS6	Strategic/Planning	Reactive	Experimental/ Reflector	Charismatic	Realised Non- Entrepreneur
CS7	Strategic/Planning	Reactive	Sensitive/ Reflector	Participative	Unrealised Entrepreneur
CS8	Strategic/Planning	Reactive	Sensitive/ Reflector	Participative	Unrealised Entrepreneur

Table 1.2 indicates that all the cases suggesting convertibility at a low level, except CS6, are reactive in strategic thinking, sensitive to their external environment in design thinking, have participative styles and are all unrealised entrepreneurs. The owner-manager of CS6, on the other hand, is also reactive in strategic thinking but portrays a charismatic leadership style and is more of a realised non entrepreneur. However, they all indicate a strategic planning approach to knowledge management development. This demonstrates that such businesses would like to survive, but have not identified the entrepreneurial behaviours needed to do this in a dynamic environment. This may also be because of a need to stay the same in a niche without a need for growth, such as with family-run businesses. Strategic planning does not impinge on entrepreneurial convertibility. However, to survive in a continuously changing environment, they will all have to take a more proactive approach to their human capital development in both formal and informal ways. They therefore fall under either unrealised entrepreneurs or realised non-entrepreneurs suggesting a low level of convertibility.

5. Conclusions

The findings also indicate the need to institute a holistic plan for knowledge management, which capture all the aspects of entrepreneurial capital in SMEs, as depicted in the model. This requires owner-managers to create an environment inwardly and outwardly for self reflection, perception, evaluation and action taking, based on their drives in a dynamic, engaging and goal-oriented manner, as shown in figure below. At a realistic level, the capability to learn and adapt is essential to the performance and future success of SMEs.



Figure 6: Model of the virtuous cycle of entrepreneurial behaviour

The model suggests a situation where managers have to manage by perception and improve performance by creating an environment, which will lead to better understanding of perceptions, self and opportunity evaluation and speed in innovation through the creativity innovation continuum, its continuous thinking leading to understanding and adoption of entrepreneurial behaviours. In this way, customer needs can be easily identified and met through the right convertibility processes, leading to the accumulation of wealth. Once this is analysed, evaluation, reflection and speed of action will be necessary to continuously adapt to the business environment, increasing the motivation to achieve goals. Motivations (traits) will continuously help to create this virtuous cycle for both internal and external stakeholders, reinforcing and changing the entrepreneurial behaviours for owner-managers' decision-making processes based on their experiences and learning abilities in a dynamic environment to achieve the desired outcomes. This shows the process of capital convertibility from cultural (perceptions and emotions) to human (thinking and speed of innovation) and social capital into economic capital, which is the main motive of an SME.

This work considers the previous studies but adds to the body of knowledge by considering entrepreneurial capital with a focus on the experience and learning of owner-managers and the symbolic value attached to it. It therefore takes a more psychological view of how new concepts are derived from the continuous sensing of the environment through the subconscious, experimentation, and reflecting on and organising thoughts, aiding in owner-managers' judgments based on customer perception (Sparrow, 2001) and ascribing value to non-financial capital. This influences the entrepreneurial attitudes of owner-managers of SMEs towards business processes and the effects of these on customer value proposition. It uses knowledge of businesses' core competences from the resource based, knowledge based to articulate the concept of convertibility and its application to SMEs. In particular, it advances and contributes

to the understanding of the effects that managers' perception have on decision making and convertibility of entrepreneurial capital through symbolic capital. It sounds out the need for owner-managers to become entrepreneurial.

6. Recommendation

There is a need for SMEs to adopt a model of entrepreneurial capital convertibility as their strategic guide and its implementation through learning and co-producing with partners and valued networks. This is by recognising the entrepreneurial processes associated with creativity; innovation; the dynamic nature of knowledge use in SMEs; the need for flexibility, adaptability and learning, leading to continuous capital convertibility with the support of knowledge institutions and businesses in the supply chain. This work could be improved by carrying out a longitudinal study and extending to would be entrepreneurs. It is also recommended that case studies should be increased to strongly support the validity of results and provide a better ground for generalisation.

References

- Acs, Z.J. (2007) *How is Entrepreneurship Good for Economic Growth?* The 25th Economic Conference of Progress Foundation, held on October 31, 2007: Great Barrington, Massachusetts
- Alvarez, S. A. and Barney, J. B. (2004) "Organizing Rent Generation and Appropriation: Toward a Theory of the Entrepreneurial Firm", *Journal of Business Venturing* Vol. 19, Issue 5, pp 621-635
- Argote, L. (1999). Organizational learning: Creating, retaining, and transferring knowledge. Norwell, MA: Kluwer.
- Argote, L. and Miron-Spektor, E. (2011) "Organizational Learning: From Experience to Knowledge", *Organization Science*. Forthcoming.
- Audretsch, D.B. and Keilbach, M. (2004) Does Entrepreneurship Capital Matters? *Entrepreneurship Theory and Practice*, Vol. 28, Issue 5, pp. 419-429
- Barney, J.B., Ketchen, D.J. and Wright, M. (2011) "The Future of Resource-Based Theory: Revitalization or Decline?" *Journal of Management Vol*.37, Issue 5, pp. 1299-1315.
- Bhidé, A. (2000) The Origin and Evolution of New Businesses, New York: Oxford University Press.
- Bird, B. (1988) "Implementing entrepreneurial ideas: The case for intentions", Academy of Management Review Vol. 13: pp. 442–454.
- Bonte, W., Heblich, S. and Jarosch, M. (2008) Concept and Measurement of Regional Entrepreneurship Capital, *IAREG – Intangible Assets and Regional Economic Growth*; Working Paper WP3/01
- Bourdieu, P. (1986). The Forms of Capital In Richardson, J. (Ed) *The Handbook of Theory and Research for the Sociology of Education*, New York: Greenwood Press. pp. 241-258.
- Bosma, N. and Levie, J. (2009) *Global Entrepreneurship Monitor*. 2009 Executive Report, GEM. Website and date accessed (21/02/2015)
- Brown, T. (2008) "Design thinking", Harvard Business Review, Vol. 86, Issue 6, (2008), pp. 84-92.
- Bygrave, W.D. (2003) The Entrepreneurial Process, In W.D. Bygrave & A. Zacharakis (Eds.) *The portable MBA in entrepreneurship* Hoboken, N.J: John Wiley & Sons
- Carland, J. W., Hoy, F., Boulton, W. R. and Carland, J. C. (1984) "Differentiating entrepreneurs from small business owners", *Academy of Management Review*, Vol. 9, Issue 2, pp. 354-359
- Chell, E. (2008) The entrepreneurial personality: a social construction. 2nd ed. London, U.K. Routledge
- Davidsson, P. and Honig, B. (2003) "The role of social and human capital among nascent entrepreneurs", *Business venturing*, Vol. 18, Issue 3, pp. 301-331
- de Bruin-Judge, R.L. (2006) The Entrepreneurial Capital of SMEs and Business Compliance in New Zealand: A Study of the Relationship, Massey University, Albany, New Zealand

- Firkin, P. (2001) Entrepreneurial Capital: A Resource-Based Conceptualisation of the Entrepreneurial Process. *Working Paper* No. 7, *Labour Market Dynamics Research Programme*. Albany and Palmerston North Labour Market Dynamics Research Programme, 2001.
- Firkin, P. (2003) Entrepreneurial Capital In De Bruin, A. and Dupuis, A. (eds.) *Entrepreneurship: New Perspectives in a Global Age*. Aldershot: Ashgate, 57-75.
- Kaplan, R.S. and Norton, D.P. (2004) *Strategy Maps: Converting intangible assets into tangible outcomes*. Boston: Harvard Business School Press.
- Lam, W., Shaw, E. and Carter, S. (2007) *Entrepreneurial Capital: Convertibility, Personal Reputation and Firm Performance*. Institute for Small Business & Entrepreneurship. Glasgow: Scotland
- Malina, M. and Selto, F. (2004) "Choice and change of performance model measures", *Management Accounting Research*, Vol. 15, pp. 441–469.
- Martin, C. and Hartley, J. (2006) *SME intangible assets* ACCA Research Report, 93, London: Certified Accountants Educational Trust
- Matlay, H. (2009) "Entrepreneurship education in the UK: A critical analysis of stakeholder involvement and expectations", *Journal of Small Business and Enterprise Development*, Vol. 16 Issue 2, pp. 355 368.
- Neira, I., Va´zquez, E. and Portela, M. (2008) *An Empirical Analysis of Social Capital and Economic Growth in Europe (1980–2000)*. Santiago de Compostela, Spain
- Reynolds, P., Bosma, N., E. Autio, S. Hunt, N. De Bono, and I. Servais (2005) 'Global Entrepreneurship Monitor: Data Collection Design and Implementation, 1998-2003'. Small Business Economics, Vol. 24, Issue 3: pp. 205-231.
- Rompho, N. (2011) "Why the Balanced Scorecard Fails in SMEs: A Case Study", International Journal of Business and Management Vol. 6, No. 11, pp. 39-46.
- Saxenian, A. (1994) *Regional Advantage: Culture and Competition*. Cambridge, MA: Harvard University Press.
- Say, J.B. (1803), A Treatise on Political Economy: or the Production, Distribution and Consumption of Wealth, New York: Augustus M Kelley, 1964.
- Schumpeter, JA 1934, 'The Theory of Economic Development', Cambridge, MA: Harvard University.
- Subramaniam, M. and Youndt, M.A. (2005) "The Influence of Intellectual Capital on the Types of Innovative Capabilities", *Academy of Management Journal*, Vol. 48, pp. 450-463.
- Shane, S., & Venkataraman, S. (2000), The promise of entrepreneurship as a field of research *Academy* of *Management Review*, Vol. 25, pp. 217-226.
- Shaw, E., Carter, S. and Lam, W. (2009) "Gender and entrepreneurial capital: implications for firm performance", *International Journal of Gender and Entrepreneurship*, Vol. 1 No. 1, pp. 25-41.
- Sparrow, J. (1998) Knowledge in Organizations: Access to Thinking at work. London; SAGE Publication

- Sparrow, J. (2001) "Knowledge management in small firms", *Knowledge and Process Management*, Vol. 8 No. 1, pp. 3-16
- Sparrow, J. (2005) "Classification of different knowledge management development approaches of SMEs", *Knowledge Management Research and Practice*, Vol. 3, pp. 136-145
- Sparrow, J. and Patel, S. (2006) Business support agencies' role in enhancing intangible assets in SMEs, Unpublished paper University of Central England
- Sparrow, J. and McCabe, S. (2011) Supporting business innovation: Assessing knowledge, complexity and design competencies and positioning of SMEs, Unpublished paper University of Central England
- Stringfellow, L. and Shaw, E. (2009) Conceptualising entrepreneurial capital for a study of performance in small professional service firms *International Journal of Entrepreneurial Behaviour & Research*, Vol. 15 No. Issue 2, pp. 137-161.
- Svensson, P. (2010) "The Dynamics of Innovation and Knowledge Based Regional Development", Linköping Studies in Science and Technology Dissertations, No. 1356
- van der Linden, H.W. (2009) Framework for developing self assessments for nascent entrepreneurs to develop insights into strategy selection, Master thesis research project for the University of Technology Eindhoven – Faculty: IE&IS (Industrial Engineering & Innovation sciences) Nov 2009

Vision	'to take the lead in pioneering technology initiatives'
Sex	Male
Nationality	British
Experience	IT with extensive business experience
Background	SME2 is a business in the services sector (professional football) providing scouting, recruitment, and player administration and management solutions. With a background in IT, the management team has a running experience in the business of 12 years serving more than 150 professional Football Clubs and national Football Associations. Their main philosophy is therefore harnessing long term associations and partnerships with many of the sector's stakeholders. Based in the West Midlands region, it is technology robust and secure and its people are knowledgeable and respected. The company employs 25 staff and internationally works with more than 130 countries across the world, incorporating a comprehensive database of approaching 130,000 players, delivering independent information, statistics and news content. They operate a secured online system providing centralised assessment tools, supporting improved workflow and management processes within the Football Club.

APPENDIX A: Case study summaries

Vision	'to partner with our customers,
Sex	Male
Nationality	British
Experience	Accountancy and Finance
Background	SME3 is one of the region's leading print and print management business dealing with graphic design or artwork, through to the storage and delivery of a printed, promotional or ancillary item and also offering technical support, consultancy, large format graphics, print management and general facilities management. It is based in the centre of the region and

works with an enviable list of customers. As stated by the company
We are not just a "printer" - we are a new breed of "printer" - one who is different from the rest priding themselves as an "end to end print solution provider" - anticipating the needs of its customers and reacting to them. They therefore pride themselves on being very customer focussed in order to add value.

Vision	
Sex	Male
Nationality	British
Experience	Engineering
Background	 SME5 is an independent specialist coating company dealing in the manufacturing of high performance surface coatings engineered to meet increasing requirements. According to their mission, they are committed to product innovation and quality. It has recently expanded its share of the market with several new approvals representing a significant increase in business. Much of the business is a result of the company's expertise where 'green' issues are of particular importance and in the protection of magnesium parts for aerospace applications. Aerospace companies in Canada, France, India and the USA as well as the UK have benefited from its diverse range of coatings. Based in the region, SME5 has been operating for the past 16 years and the MD has been a director representing SME's as well as a Commercial Manager at the region's council. He also has diplomas in both Management and Marketing giving a holistic view of business which is a key in convertibility

Male
British
Engineering
SME4 is one of the largest precision engineering companies in the U.K. and Europe specialising in contract presswork and stampings which enabling the manufacture of precision metal components of a complex nature for customers around the globe and in many different markets.
From humble origins it has continued to develop and evolve to be one of the most skilled and accomplished netal pressings and stampings companies. It has gained a reputation for combining technical competence and excellence with sound, lean nanufacturing principles enabling it to produce competitively priced, high quality pressed and stamped metal components; these qualities combined with zero defect manufacturing policy and outstanding customer service makes it a preferred supplier to many of the leading global corporations in the Automotive, Aerospace, Defence, Environmental and Medical supply chains.
in 2005 it acquired another company and the two organisations were then merged. Focus was given to he two companies' core activities and the company underwent a period of rationalisation and efficiency improvements to streamline manufacture in line with current lean, 5 S, Kanban and SMED best practices.
Foday it has a turnover of some £5 Million per annum and employs 55 people. Financially stable and with an experienced and well respected management team it projects strong ambitions for the future with further strategic acquisitions under review.
「M 「Bi」「Ei」 — Si coor and Fi Fi Fi fi good not staw of such and in finite of an experted of the second state of the second s

Vision	"To enjoy what we do and to be successful"
Sex	Female
Nationality	British
Experience	Business
Background	SME6 is a specialist manufacturer of a diverse range of engraved and etched products and focuses more on hot foiling and embossing dies together with spark erosion electrodes and pad printing plates. They state that
	and therefore actively encourage companies to approach them with a view to developing products and processes. Located at the very heart of the UK, SME4 are ideally situated to serve customers worldwide with easy access to motorways and airports. Coupled with our highly skilled local workforce, their uniqueness and flexibility is key to success as a world leading manufacturer of precision engraved tooling.

Vision	
Sex	Male
Nationality	British
Experience	Business
Background	SME7 is a technological business that enables effective business delivery and enhanced business performance through products and service for customer satisfaction.
	The team at SME7 are specialists in strategy planning and execution and performance management. In excess of 100 organisations currently use our products and services. These organisations vary in size from small businesses with 15 staff through to enterprises with turnovers up to £340m and 2000+ employees.
	They pride themselves on retaining customers who use their product and services over years and have seen significant benefits as a consequence, including

year on year delivery of their strategic plans and improvements in management efficiency and organisation performance.
According to the MD,
"The business goes beyond what we wanted to achieve from it, the platform leads straight to business intelligence."
The company has been running for 10 years and based in the West midlands region with a team of 5 directors. SME7 is split between 12 shareholders. SME7 have total assets of £0 plus total liabilities of £777,744. They owe £543,508 to creditors and are due £193,651 from trade debtors. As of their last financial statement, they had £165,769 in cash reserves. Their book value is £-407,543, and the value of their shareholders' fund is £158,345.

Vision	
Sex	Male
Nationality	British
Experience	Business
Background	SME8 is a business involved in coaching and mentoring. The team was created in early 2008 to provide coaching to UK organisations. All coaches on the scheme have easily passed desk-top screening and then excelled in a demanding assessment centre. The advantage to organisations is that quality coaching is available at very encouraging rates and these rates include capped expenses so that budgets are sacrosanct. This is not cheap coaching but a methodology for bringing the finest coaching available to SMEs and to larger organisations in lean periods. Since 2009, SME8 has been working with the National Skills Academy for Manufacturing, to
	provide leadership and coaching skills to manufacturing industry managements. Products are targeted primarily at the SME market, but whole

supply-chains, including blue-chips gain from these learning & development interventions.

APPENDIX B: Correlations on design thinking

Spearman 's-ho Experiments ng Correlatio n 1.000 7.10 A88 5.23 515 410 505 500 255 's-ho n Correlatio nt n				Experimenti	Reflectin	Organisin	Sensitivit	Individu al Business	Specific Interactio	Tentativ e Models	Stable Emergen	Fundament al Socio- Economics
's rho n° n° </td <td>Spearman</td> <td>Experimenti</td> <td>Correlatio</td> <td>1.000</td> <td>.710*</td> <td>.088</td> <td>.523</td> <td>553</td> <td>410</td> <td>505</td> <td>600</td> <td>265</td>	Spearman	Experimenti	Correlatio	1.000	.710*	.088	.523	553	410	505	600	265
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$'s rho	ng	n									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Coefficie									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			nt									
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			Sig. (2- tailed)		.048	.835	.184	.155	.314	.202	.116	.526
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			N	8	8	8	8	8	8	8	8	8
Efficiency n Coefficie nt Sig.(2- tailed) 783 .377 .720 .741 .115 .330 .066 .923 .623 N 8		Revenue to	Correlatio	117	.363	152	140	.602	.397	.676	041	.207
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Efficiency	n G CC I									
Image: Normal Sig (2-) 783 377 720 741 115 330 66 923 623 Revenue to Functionalit y Coeffricie nt 378 00 401 113 686 686 686 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 6873** 686 688 68 68 688 68 68 68 68 68 68 68 68 68 68 68 68 68 68 68 68 68 68			Coefficie									
$ \frac{\text{tailed}}{\text{N}} \\ \begin{array}{ c c c c c c c } & & & & & & & & & & & & & & & & & & &$			Sig. (2-	.783	.377	.720	.741	.115	.330	.066	.923	.623
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			tailed)									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Ν	8	8	8	8	8	8	8	8	8
Functionalit n n n n n n n n n n n n n n n n sig.(2- .356 1.000 .325 .790 .043 .060 .005 .422 .325 N 8<		Revenue to	Correlatio	378	.000	401	113		.686		.332	.401
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Functionalit	n G GG					.723*		0.873**		
N 356 1.000 325 .790 .043 .060 .005 .422 .325 N 8<		У	Coefficie									
Revenue to Correlatio 354 .122 322 338 .606 .538 .680 .097 .167 Partnership n Coefficie 354 .122 222 338 .606 .538 .680 .097 .167 Partnership n Coefficie 354 .122 222 338 .606 .538 .680 .097 .167 N 8 8 8 8 8 8 .606 .538 .680 .097 .167 N 8 8 8 8 8 8 .606 .538 .680 .097 .167 N 8 8 8 8 8 8 .644 .644 .293 .442 Brands n .657 .434 .888 .045 .085 .005 .482 .273 tailed) N 8 8 8 8 8 8 <			Sig. (2-	.356	1.000	.325	.790	.043	.060	.005	.422	.325
N 8 606 .538 .680 .097 .167 Partnership n Sig. (2- .390 .774 .597 .413 .112 .169 .063 .820 .693 Revenue to Correlatio 313 .065 324 .060 .112 .169 .063 .820 .693 Brands n Sig. (2- .451 .879 .434 .888 .045 .085 .005 .482 .273 M 8 8 8 8 8 8 8 8 <t< td=""><td></td><td></td><td>tailed)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			tailed)									
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Ν	8	8	8	8	8	8	8	8	8
Revenue to Correlatio 334 .122 222 338 .606 .338 .680 .097 .167 Partnership n Coefficie nt Sig. (2- .390 .774 .597 .413 .112 .169 .063 .820 .693 M 8		D (0 1/	254	100	222	220	(0)(520	(00	007	1/7
Indiciding Image: Sige (2		Revenue to Partnershin	n	354	.122	222	558	.606	.538	.680	.097	.16/
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1 ar an ar on an ap	Coefficie									
Sig. (2- tailed) Sig. (2- tailed)<			nt									
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			Sig. (2-	.390	.774	.597	.413	.112	.169	.063	.820	.693
N 8			tailed)									
Revenue to Brands Correlatio n Coefficie nt 313 .065 324 060 644 293 442 Brands n Coefficie nt Sig. (2- tailed) 451 879 434 888 045 085 005 482 273 N 8			Ν	8	8	8	8	8	8	8	8	8
Brands n Coefficie N Sig. (2- .451 .879 .434 .888 .045 .085 .005 .482 .273 N 8		Revenue to	Correlatio	313	.065	324	060		.644		.293	.442
Coefficie nt Sig. (2- .451 .879 .434 .888 .045 .085 .005 .482 .273 N 8 <t< td=""><td></td><td>Brands</td><td>n</td><td></td><td></td><td></td><td></td><td>.723*</td><td></td><td>0.866**</td><td></td><td></td></t<>		Brands	n					.723*		0.866**		
Int Sig. (2- tailed) .451 .879 .434 .888 .045 .085 .005 .482 .273 N 8 104 146 177 107 107 107 107 107 107 107 107 108 108 108			Coefficie									
Instructure			m Sig (2-	451	879	434	888	045	085	005	482	273
N8888888888Revenue to innovationCorrelatio n Coefficie nt313.065.118583.194.205.144146177			tailed)		.077		.000	.0.0	.005			.275
Revenue to innovationCorrelatio n Coefficie nt313.065.118583.194.205.144146177			Ν	8	8	8	8	8	8	8	8	8
Revenue to innovation Correlatio n 313 .065 .118 583 .194 .205 .144 146 177 innovation n Coefficie nt .065 .118 583 .194 .205 .144 146 177												
INNOVATION N Coefficie nt		Revenue to	Correlatio	313	.065	.118	583	.194	.205	.144	146	177
nt		innovation	n Coefficie									
			nt									

Correlations on Design Thinking

	Sig. (2- tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Revenue to Knowledge	Correlatio n Coefficie	378	.000	.045	587	.248	.288	.218	066	134
	nt Sig. (2- tailed)	.356	1.000	.917	.126	.553	.490	.604	.876	.752
	N	8	8	8	8	8	8	8	8	8
Revenue to Values	Correlatio	188	.194	.265	374	.299	.219	.289	132	.088
	Coefficie nt									
	Sig. (2- tailed)	.657	.646	.526	.362	.472	.602	.488	.756	.835
	N	8	8	8	8	8	8	8	8	8
Revenue to IT	Correlatio n Coefficie nt	323	.067	.122	494	.309	.302	.298	060	.000
	Sig. (2- tailed)	.436	.875	.774	.214	.457	.467	.473	.887	1.000
	N	8	8	8	8	8	8	8	8	8
Revenue to Alignment	Correlatio n Coefficie	378	.000	.045	429	.407	.420	.436	.066	.134
	nt Sig. (2-	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
Efficiency to Revenue	Correlatio n Coefficie nt	382	292	.427	041	.284	.080	.229	.311	.480
	Sig. (2- tailed)	.350	.482	.291	.924	.495	.852	.586	.453	.228
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Functionalit y	Correlatio n Coefficie nt	174	.300	.055	431	.354	.224	.336	211	082
	Sig. (2- tailed)	.680	.470	.897	.287	.389	.593	.416	.616	.847
	N	8	8	8	8	8	8	8	8	8
Efficiency to Partnerships	Correlatio n Coefficie	118	.365	.056	338	.408	.234	.408	207	.000
	Sig. (2- tailed)	.781	.374	.896	.413	.315	.576	.315	.623	1.000
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Branding	Correlatio n Coefficie nt	059	.423	014	189	.504	.281	.541	158	.124
	Sig. (2- tailed)	.891	.296	.974	.654	.203	.500	.167	.709	.770
	Ν	8	8	8	8	8	8	8	8	8

Efficiency to innovation	Correlatio n Coefficie	252	.130	.193	376	.354	.302	.364	052	.134
	Sig. (2- tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Knowledge	Correlatio n Coefficie	351	.121	152	532	.406	.370	.405	068	124
	Sig. (2- tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Values	Correlatio n Coefficie nt	323	.067	.122	494	.309	.302	.298	060	.000
	Sig. (2- tailed) N	.436 8	.875	.774	.214	.457	.467 8	.473	.887	1.000
Efficiency to	Correlatio	252	.130	.193	376	.354	.302	.364	052	.134
IT	n Coefficie nt Sig. (2-	.547	.759	.647	.358	.390	.467	.376	.903	.752
	tailed) N	8	8	8	8	8	8	8	8	8
Efficiency to Alignment	Correlatio n Coefficie nt	354	.122	222	338	.606	.538	.680	.097	.167
	Sig. (2- tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	Ν	8	8	8	8	8	8	8	8	8
Functionalit y to Revenue	Correlatio n Coefficie nt	293	.181	152	532	.357	.295	.338	144	207
	Sig. (2- tailed)	.482	.667	.720	.175	.386	.479	.413	.734	.623
_	Ν	8	8	8	8	8	8	8	8	8
Functionalit y to Efficiency	Correlatio n Coefficie nt	117	.363	.055	385	.357	.192	.338	247	083
	Sig. (2- tailed)	.783	.377	.897	.347	.386	.649	.413	.556	.846
	N	8	8	8	8	8	8	8	8	8
Functionalit y to Partnerships	Correlatio n Coefficie nt	351	.121	152	532	.406	.370	.405	068	124
	Sig. (2- tailed) N	.394 8	.776 8	.720	.175	.319 8	.367 8	.319 8	.872	.770 8
Functionalit	Correlatio	252	.130	.193	376	.354	.302	.364	052	.134
y to Brands	n Coefficie nt									

	Sig. (2- tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	Ν	8	8	8	8	8	8	8	8	8
Functionalit	Correlatio	313	.065	.118	583	.194	.205	.144	146	177
Innovation	n Coefficie									
	nt Sig. (2-	.451	.879	.781	.130	.645	.627	.733	.730	.675
	tailed)	8	8	8	8	8	8	8	8	8
Functionalit	Completie	002	200	124	440	249	260	216	175	106
y to	n	092	.500	124	449	.240	.309	.210	175	190
Knowledge	Coefficie nt									
	Sig. (2- tailed)	.844	.514	.791	.312	.592	.415	.642	.708	.673
	Ν	7	7	7	7	7	7	7	7	7
Functionalit	Correlatio	188	.194	.265	478	.194	.132	.144	219	088
y to values	Coefficie nt									
	Sig. (2- tailed)	.657	.646	.526	.231	.645	.756	.733	.602	.835
	Ν	8	8	8	8	8	8	8	8	8
Functionalit y to IT	Correlatio n	378	.000	.045	429	.407	.420	.436	.066	.134
	Coefficie nt									
	Sig. (2- tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	Ν	8	8	8	8	8	8	8	8	8
Functionalit	Correlatio	410	.060	290	385	.602	.568	.676	.130	.124
Alignment	n Coefficie nt									
	Sig. (2- tailed)	.314	.887	.486	.347	.115	.141	.066	.759	.770
	Ν	8	8	8	8	8	8	8	8	8
Partnerships to Revenue	Correlatio n	174	.300	.055	333	.452	.306	.470	129	.082
	Coefficie									
	Sig. (2-	.680	.470	.897	.420	.261	.461	.240	.760	.847
	tailed) N	8	8	8	8	8	8	8	8	8
Partnerships	Correlatio	059	.423	.055	287	.406	.199	.405	240	.000
to Efficiency	n Coefficie									
	III Sig. (2- tailed)	.891	.296	.897	.491	.319	.637	.319	.567	1.000
	N	8	8	8	8	8	8	8	8	8
Partnerships	Correlatio	234	.242	014	483	.357	.260	.338	178	124
to Functionalit	n Coefficie									
У	nt Sig. (2-	.577	.564	.974	.226	.386	.534	.413	.673	.770
	tailed)	0	0	0	0	0	0	0	o	0
	N	8	8	8	8	8	8	8	8	8

Partnerships to Brands	Correlatio n Coefficie	313	.065	.118	374	.403	.380	.433	.029	.177
	nt Sig. (2- tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Partnerships	Correlatio	252	.130	.193	535	.196	.170	.145	184	134
Innovation	Coefficie nt									
	Sig. (2- tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to Knowledge	Correlatio n Coefficie nt	313	.065	.118	583	.194	.205	.144	146	177
	Sig. (2- tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
D (1)	N	8	120	8	8	8	8	8	8	8
to Values	n Coefficie nt	252	.130	.193	376	.354	.302	.364	052	.134
	Sig. (2- tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to IT	Correlatio n Coefficie nt	378	.000	.045	429	.407	.420	.436	.066	.134
	Sig. (2- tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to Alignment	Correlatio n Coefficie nt	313	.065	.118	374	.403	.380	.433	.029	.177
	Sig. (2- tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Brands to Revenue	Correlatio n Coefficie nt	291	.180	082	528	.354	.293	.336	143	164
	Sig. (2- tailed)	.485	.670	.847	.179	.389	.482	.416	.736	.697
	N	8	8	8	8	8	8	8	8	8
Brands to Efficiency	Correlatio n Coefficie nt	293	.181	152	287	.602	.500	.676	.062	.207
	Sig. (2- tailed)	.482	.667	.720	.491	.115	.207	.066	.885	.623
Daorda	IN Courselist	8	101	8	ð 207	8	ð	0	8	8
Functionalit y	n Coefficie nt	293	.181	152	28/	.602	.500	.676	.062	.207

	Sig. (2-	.482	.667	.720	.491	.115	.207	.066	.885	.623
	N	8	8	8	8	8	8	8	8	8
Brands to	Correlatio	351	.121	152	532	.406	.370	.405	068	124
Partnersnips	n Coefficie nt									
	Sig. (2- tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	Ν	8	8	8	8	8	8	8	8	8
Brands to	Correlatio	410	.060	221	483	.504	.486	.541	.048	.000
milovation	n Coefficie nt									
	Sig. (2- tailed)	.314	.887	.599	.226	.203	.222	.167	.910	1.000
	Ν	8	8	8	8	8	8	8	8	8
Brands to Knowledge	Correlatio n Coefficie	234	.242	014	483	.357	.260	.338	178	124
	nt Sig. (2- tailed)	.577	.564	.974	.226	.386	.534	.413	.673	.770
	N	8	8	8	8	8	8	8	8	8
Brands to Values	Correlatio	354	.122	222	338	.606	.538	.680	.097	.167
values	n Coefficie nt									
	Sig. (2- tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	Ν	8	8	8	8	8	8	8	8	8
Brands to IT	Correlatio n Coefficie	410	.060	290	385	.602	.568	.676	.130	.124
	nt Sig. (2- tailed)	.314	.887	.486	.347	.115	.141	.066	.759	.770
	N	8	8	8	8	8	8	8	8	8
Brands to Alignment	Correlatio n Coefficie	407	.060	219	431	.549	.524	.604	.088	.082
	nt Sig. (2-	.317	.888	.602	.287	.159	.183	.113	.835	.847
	n	8	8	8	8	8	8	8	8	8
Innovation	Correlatio	351	.121	152	532	.406	.370	.405	068	124
to Revenue	n Coefficie nt									
	Sig. (2- tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Efficiency	Correlatio n Coefficie nt	299	.185	085	443	.464	.385	.483	063	.000
	Sig. (2- tailed)	.472	.661	.842	.272	.246	.347	.225	.882	1.000
	N	8	8	8	8	8	8	8	8	8

Innovation to Functionalit	Correlatio n Coefficie	671	265	.032	516	.516	.501	.387	.333	.167
у	nt Sig. (2-	.099	.566	.946	.235	.235	.252	.391	.465	.721
	tailed) N	7	7	7	7	7	7	7	7	7
Innovation	Correlatio	441	065	030	535	.354	.413	.364	.059	.000
Partnership	Coefficie nt									
	Sig. (2- tailed)	.274	.878	.944	.172	.390	.309	.376	.890	1.000
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Branding	Correlatio n Coefficie	441	065	030	535	.354	.413	.364	.059	.000
	Sig. (2- tailed)	.274	.878	.944	.172	.390	.309	.376	.890	1.000
	N	8	8	8	8	8	8	8	8	8
Innovation to Knowledge	Correlatio n Coefficie nt	313	.065	.118	583	.194	.205	.144	146	177
	Sig. (2- tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Innovation to Values	Correlatio n Coefficie nt	438	065	029	478	.403	.454	.433	.102	.088
	Sig. (2- tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	Ν	8	8	8	8	8	8	8	8	8
Innovation to IT	Correlatio n Coefficie nt	457	262	099	447	.319	.396	.468	.114	.104
	Sig. (2- tailed)	.303	.571	.833	.315	.486	.380	.289	.808	.824
	Ν	7	7	7	7	7	7	7	7	7
Innovation to Alignment	Correlatio n Coefficie	438	065	029	478	.403	.454	.433	.102	.088
	nt Sig. (2- tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	Ν	8	8	8	8	8	8	8	8	8
Knowledge to Revenue	Correlatio n Coefficie nt	234	.242	014	483	.357	.260	.338	178	124
	Sig. (2- tailed)	.577	.564	.974	.226	.386	.534	.413	.673	.770
	N	8	8	8	8	8	8	8	8	8
Knowledge to Efficiency	Correlatio n Coefficie nt	354	.122	222	338	.606	.538	.680	.097	.167

	Sig. (2- tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	299	.185	085	443	.464	.385	.483	063	.000
Functionalit	n Coefficie									
у	nt Sig. (2-	.472	.661	.842	.272	.246	.347	.225	.882	1.000
	tailed)	0	Q	0	Q	0	0	0	0	0
	N	8	0	8	8	8	8	0	8	8
to	n	063	195	.282	068	188	074	218	.044	.045
Partnerships	Coefficie nt									
	Sig. (2- tailed)	.882	.643	.498	.873	.655	.862	.604	.917	.917
	Ν	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	407	.060	219	431	.549	.524	.604	.088	.082
to Brands	n Coefficie nt									
	Sig. (2- tailed)	.317	.888	.602	.287	.159	.183	.113	.835	.847
	Ν	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	351	.121	152	532	.406	.370	.405	068	124
Innovation	n Coefficie nt									
	Sig. (2- tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	Ν	8	8	8	8	8	8	8	8	8
Knowledge to Values	Correlatio n Coefficie nt	378	.000	401	113	.723*	.686	.873**	.332	.401
	Sig. (2- tailed)	.356	1.000	.325	.790	.043	.060	.005	.422	.325
	Ν	8	8	8	8	8	8	8	8	8
Knowledge to IT	Correlatio n Coefficie	441	065	030	535	.354	.413	.364	.059	.000
	nt Sin (2	274	070	044	170	200	200	276	800	1.000
	tailed)	.274	.878	.944	.172	.390	.309	.370	.890	1.000
	Ν	8	8	8	8	8	8	8	8	8
Knowledge to	Correlatio n	354	.122	222	338	.606	.538	.680	.097	.167
Alignment	Coefficie nt									
	Sig. (2- tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Values to Revenue	Correlatio n Coefficie	189	.195	.267	429	.248	.177	.218	177	.000
	nt Sig. (2-	.654	.643	.522	.289	.553	.675	.604	.675	1.000
	tailed) N	8	8	8	8	8	8	8	8	8

Values to Efficiency	Correlatio n Coefficie	313	.065	.118	374	.403	.380	.433	.029	.177
	nt Sig. (2- tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Values to Functionalit y	Correlatio n Coefficie nt	188	.194	.265	478	.194	.132	.144	219	088
	Sig. (2- tailed)	.657	.646	.526	.231	.645	.756	.733	.602	.835
	N	8	8	8	8	8	8	8	8	8
Values to Partnerships	Correlatio n Coefficie nt	252	.130	.193	376	.354	.302	.364	052	.134
	Sig. (2- tailed) N	.547	.759	.647	.358	.390	.467	.376	.903	.752
Values to	Correlatio	- 313	065	118	_ 374	403	380	433	029	177
Brands	n Coefficie nt	515	.005	.110	574	.+05	.560		.02)	.177
	sig. (2- tailed)	.451	.879	./81	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Values to Innovation	Correlatio n Coefficie nt	500	221	219	265	.546	.644	.660	.376	.354
	Sig. (2- tailed)	.207	.598	.603	.526	.161	.085	.075	.358	.390
	N	8	8	8	8	8	8	8	8	8
Values to Knowledge	Correlatio n Coefficie nt	378	.000	.045	587	.248	.288	.218	066	134
	Sig. (2- tailed)	.356	1.000	.917	.126	.553	.490	.604	.876	.752
	N	8	8	8	8	8	8	8	8	8
Values to IT	Correlatio n Coefficie nt	252	.130	.193	535	.196	.170	.145	184	134
	Sig. (2- tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
_	N	8	8	8	8	8	8	8	8	8
Values to Alignment	Correlatio n Coefficie nt	313	.065	.118	374	.403	.380	.433	.029	.177
	Sig. (2- tailed) N	.451	.879 8	.781	.362	.322	.353	.284	.945 8	.675 8
IT to	Correlatio	420	045	020	170	402	151	422	102	000
Revenue	n Coefficie nt	438	003	029	470	.403	.434	.433	.102	.000

	Sig. (2-	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8
IT to	Correlatio	313	.065	.118	374	.403	.380	.433	.029	.177
Efficiency	n Coefficie nt									
	Sig. (2- tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	Ν	8	8	8	8	8	8	8	8	8
IT to Functionalit v	Correlatio n Coefficie	433	149	136	207	.552	.608	.667	.338	.408
	nt Sig. (2- tailed)	.284	.725	.748	.623	.156	.110	.071	.413	.315
	N	8	8	8	8	8	8	8	8	8
IT to Partnerships	Correlatio n Coefficie nt	378	.000	.045	429	.407	.420	.436	.066	.134
	Sig. (2- tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	Ν	8	8	8	8	8	8	8	8	8
IT to Brands	Correlatio n	500	221	219	265	.546	.644	.660	.376	.354
	Coefficie nt									
	Sig. (2- tailed)	.207	.598	.603	.526	.161	.085	.075	.358	.390
	Ν	8	8	8	8	8	8	8	8	8
IT to Innovation	Correlatio n Coefficie nt	438	065	029	583	.299	.366	.289	.015	088
	Sig. (2- tailed)	.278	.879	.945	.130	.472	.373	.488	.973	.835
	Ν	8	8	8	8	8	8	8	8	8
IT to Knowledge	Correlatio n Coefficie	378	.000	.045	429	.407	.420	.436	.066	.134
	nt Sig. (2- tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N N	8	8	8	8	8	8	8	8	8
IT to Values	Correlatio	438	065	029	478	.403	.454	.433	.102	.088
	n Coefficie nt									
	Sig. (2- tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	Ν	8	8	8	8	8	8	8	8	8
IT to Alignment	Correlatio n Coefficie nt	438	065	029	478	.403	.454	.433	.102	.088
	Sig. (2- tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	Ν	8	8	8	8	8	8	8	8	8

Alignment to Revenue	Correlatio n Coefficie	234	.242	014	336	.504	.384	.541	055	.124
	Sig. (2- tailed)	.577	.564	.974	.416	.203	.348	.167	.897	.770
	N	8	8	8	8	8	8	8	8	8
Alignment to efficiency	Correlatio n Coefficie nt	252	.130	.193	535	.196	.170	.145	184	134
	Sig. (2- tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Alignment to Functionalit y	Correlatio n Coefficie nt	252	.130	.193	535	.196	.170	.145	184	134
	Sig. (2- tailed) N	.547	.759	.647	.172	.642	.688	.731	.662	.752
Alignment	Correlatio	188	.194	.265	478	.194	.132	.144	219	088
to Partnerships	n Coefficie nt									
	Sig. (2- tailed)	.657	.646	.526	.231	.645	.756	.733	.602	.835
	N	8	8	8	8	8	8	8	8	8
Alignment to Brands	Correlatio n Coefficie nt	111	057	.602	.020	.106	.124	321	.163	.236
	Sig. (2- tailed)	.793	.893	.114	.963	.802	.771	.439	.701	.574
	N	8	8	8	8	8	8	8	8	8
Alignment to Innovation	Correlatio n Coefficie nt	313	.065	.118	583	.194	.205	.144	146	177
	Sig. (2- tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Alignment to	Correlatio n	378	.000	.045	587	.248	.288	.218	066	134
Knowledge	Coefficie nt									
	Sig. (2- tailed)	.356	1.000	.917	.126	.553	.490	.604	.876	.752
	N	8	8	8	8	8	8	8	8	8
Alignment to Values	Correlatio n Coefficie nt	252	.130	.193	535	.196	.170	.145	184	134
	Sig. (2- tailed) N	.547	.759	.647 8	.172	.642	.688	.731	.662 8	.752
Alignment	Correlatio	- 438	- 065	_ 020	_ 478	402	454	433	102	088
to IT	n Coefficie nt		.005	.327		. 105	т. т		.102	.000

	Sig. (2-	.278	.879	.945	.231	.322	.259	.284	.809	.835
	tailed)									
	Ν	8	8	8	8	8	8	8	8	8
*. Correlation is sign	nificant at the 0.05 level	(2-tailed).								

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX C: Correlations on strategic thinking

Correlations on Strategic Thinking

							Innovatio	Regulator	Huma		
			Financial				n	y and	n		
			Perspecti	Product/Servi	Relationshi	Imag	Processe	Social	Capita	Informatio	Organisation
			ve	ce Attributes	ps	e	s	Processes	1	n Capital	al Capital
Spearman	Revenue to	Correlatio	.657	.473	.074	.129	.483	.302	.219	.575	.630
's rho	Efficiency	n									
		Coefficie									
		nt									
		Sig. (2-	.076	.237	.862	.760	.226	.467	.602	.136	.094
		tailed)									
		Ν	8	8	8	8	8	8	8	8	8
	Revenue to	Correlatio	.361	.000	190	308	.425	.000	.331	.405	
	Functionali	n									.723*
	ty	Coefficie									
		nt									
		Sig. (2-	.379	1.000	.651	.459	.294	1.000	.424	.320	.043
		tailed)									
		Ν	8	8	8	8	8	8	8	8	8
	Revenue to	Correlatio	.662	.272	.074	055	.648	.243	.177	.564	.549
	Partnership	n									
		Coefficie									
		nt									
		Sig. (2-	.074	.514	.861	.897	.082	.561	.675	.145	.158
		tailed)									
		Ν	8	8	8	8	8	8	8	8	8
	Revenue to	Correlatio	.359	.000	189	305	.344	.065	.281	.346	
	Brands	n									
		Coefficie									.717*
		nt									
		Sig. (2-	.383	1.000	.654	.462	.404	.879	.500	.400	.045
		tailed)									
		N	8	8	8	8	8	8	8	8	8
	Revenue to	Correlatio	.732*	.289	.362	.102	.688	.452	188	.425	.015
	innovation	n									
		Coefficie									
		nt									
		Sig. (2-	.039	.488	.378	.811	.060	.261	.657	.294	.972
		tailed)									
		Ν	8	8	8	8	8	8	8	8	8
	Revenue to	Correlatio	.700	.218	.310	.022	.709*	.390	142	.429	.068
	Knowledge	n									
		Coefficie									
		nt									
		Sig. (2-	.053	.604	.456	.959	.049	.339	.738	.289	.873
		tailed)									
		-			l		1	l	1	l	I I

	Ν	8	8	8	8	8	8	8	8	8
Revenue to Values	Correlatio n Coefficie	.657	.144	.252	058	.406	.581	281	.205	.120
	nt Sig. (2-	.076	.733	.547	.891	.318	.131	.500	.627	.778
	n	8	8	8	8	8	8	8	8	8
Revenue to	Correlatio	.679	.149	.260	060	.581	.467	194	.325	.123
IT	n Coefficie nt									
	Sig. (2- tailed)	.064	.725	.534	.888	.131	.244	.646	.432	.771
	N	8	8	8	8	8	8	8	8	8
Revenue to Alignment	Correlatio n Coefficie	.587	.000	.143	220	.520	.390	142	.262	.226
	nt Sig. (2- tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Revenue	Correlatio n Coefficie	.690	.065	.421	105	.113	.877**	283	036	.176
	nt Sig. (2- tailed)	.058	.878	.299	.804	.790	.004	.497	.933	.677
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Functionali	Correlatio n Coefficie	.827*	.537	.330	.257	.668	.480	029	.586	.271
ty	nt Sig. (2- tailed)	.011	.170	.425	.539	.070	.228	.946	.127	.516
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Partnership	Correlatio n Coefficie	.803*	.544	.282	.247	.589	.487	.000	.564	.352
5	nt Sig. (2- tailed)	.016	.163	.498	.556	.124	.221	1.000	.145	.392
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Branding	Correlatio n Coefficie	.727*	.541	.177	.218	.483	.423	.102	.553	.504
	nt Sig. (2- tailed)	.041	.167	.675	.605	.226	.296	.809	.155	.203
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to innovation	Correlatio n Coefficie	.625	.073	.198	139	.425	.520	236	.206	.173
	nt Sig. (2- tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	Ν	8	8	8	8	8	8	8	8	8
	Correlatio n	.797*	.473	.280	.184	.834*	.302	.102	.693	.322

Efficiency to	Coefficie nt									
Knowledge	Sig. (2- tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to Values	Correlatio n Coefficie nt	.679	.149	.260	060	.581	.467	194	.325	.123
	Sig. (2- tailed)	.064	.725	.534	.888	.131	.244	.646	.432	.771
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to IT	Correlatio n Coefficie nt	.625	.073	.198	139	.425	.520	236	.206	.173
	Sig. (2- tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	Ν	8	8	8	8	8	8	8	8	8
Efficiency to	Correlatio n	.662	.272	.074	055	.648	.243	.177	.564	.549
Alignment	nt Sig. (2-	.074	.514	.861	.897	.082	.561	.675	.145	.158
	tailed) N	8	8	8	8	8	8	8	8	8
Functionali	Correlatio	.832*	.608	.332	.320	.863**	.302	.132	.767*	.301
ty to Revenue	n Coefficie									
	nt Sig. (2- tailed)	.010	.110	.422	.440	.006	.467	.756	.026	.469
	N	8	8	8	8	8	8	8	8	8
Functionali ty to	Correlatio n	.832*	.608	.332	.320	.644	.484	.000	.612	.301
Efficiency	Coefficie nt									
	Sig. (2- tailed)	.010	.110	.422	.440	.085	.225	1.000	.107	.469
	Ν	8	8	8	8	8	8	8	8	8
Functionali ty to Partnership	Correlatio n Coefficie	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
s	nt Sig. (2- tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	N	8	8	8	8	8	8	8	8	8
Functionali ty to	Correlatio n	.625	.073	.198	139	.425	.520	236	.206	.173
Brands	Coefficie nt									
	Sig. (2- tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	Ν	8	8	8	8	8	8	8	8	8
Functionali ty to Innovation	Correlatio n Coefficie nt	.732*	.289	.362	.102	.688	.452	188	.425	.015
	Sig. (2- tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972

	Ν	8	8	8	8	8	8	8	8	8
Functionali	Correlatio	.806*	.492	.164	.192	.797*	.300	082	.620	.120
ty to Knowledge	n Coefficie nt									
	Sig. (2- tailed)	.029	.262	.725	.680	.032	.514	.862	.137	.798
	Ν	7	7	7	7	7	7	7	7	7
Functionali	Correlatio	.732*	.289	.362	.102	.531	.581	281	.315	.015
ty to Values	n Coefficie nt									
	Sig. (2- tailed)	.039	.488	.378	.811	.175	.131	.500	.447	.972
	Ν	8	8	8	8	8	8	8	8	8
Functionali ty to IT	Correlatio n Coefficie nt	.587	.000	.143	220	.520	.390	142	.262	.226
	Sig. (2- tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	Ν	8	8	8	8	8	8	8	8	8
Functionali ty to Alignment	Correlatio n Coefficie nt	.657	.270	.074	054	.717*	.181	.219	.612	.546
	Sig. (2- tailed)	.076	.517	.862	.898	.045	.667	.602	.107	.162
	Ν	8	8	8	8	8	8	8	8	8
Partnership s to Revenue	Correlatio n Coefficie	.757*	.403	.227	.108	.552	.480	029	.483	.368
	nt Sig. (2- tailed)	.030	.323	.589	.799	.156	.228	.946	.225	.369
	N	8	8	8	8	8	8	8	8	8
Partnership	Correlatio	.797*	.608	.280	.306	.556	.484	.029	.582	.378
s to Efficiency	n Coefficie nt									
	Sig. (2- tailed)	.018	.110	.502	.461	.152	.225	.945	.130	.356
	N	8	8	8	8	8	8	8	8	8
Partnership s to Functionali	Correlatio n Coefficie	.832*	.541	.332	.259	.746*	.423	.015	.641	.273
ty	Sig. (2- tailed)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Partnership s to Brands	Correlatio n Coefficie	.583	.000	.142	218	.438	.452	188	.205	.224
	nt Sig. (2- tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	Ν	8	8	8	8	8	8	8	8	8
	Correlatio n	.738*	.291	.365	.103	.614	.520	236	.373	.015

Partnership	Coefficie									
s to Innovation	nt Sig. (2- tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Partnership	Correlatio	.732*	.289	.362	.102	.688	.452	188	.425	.015
s to Knowledge	n Coefficie nt									
	Sig. (2- tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	Ν	8	8	8	8	8	8	8	8	8
Partnership s to Values	Correlatio n Coefficie	.625	.073	.198	139	.425	.520	236	.206	.173
	nt Sig. (2-	.098	.864	.638	.742	.294	.186	.573	.624	.682
	tailed) N	8	8	8	8	8	8	8	8	8
Partnershin	Correlatio	587	000	143	- 220	520	390	- 142	262	226
s to IT	n Coefficie	.567	.000	.145	220	.520	.570	142	.202	.220
	Sig. (2- tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	Ν	8	8	8	8	8	8	8	8	8
Partnership s to Alignment	Correlatio n Coefficie	.583	.000	.142	218	.438	.452	188	.205	.224
	nt Sig. (2- tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
Brands to Revenue	Correlatio n Coefficie	.827*	.537	.330	.257	.814*	.360	.058	.688	.271
	nt Sig. (2- tailed)	.011	.170	.425	.539	.014	.381	.891	.059	.516
	Ν	8	8	8	8	8	8	8	8	8
Brands to Efficiency	Correlatio n Coefficie	.657	.270	.074	054	.571	.302	.132	.509	.546
	nt Sig. (2- tailad)	.076	.517	.862	.898	.140	.467	.756	.198	.162
	N	8	8	8	8	8	8	8	8	8
Brands to Functionali	Correlatio n	.657	.270	.074	054	.571	.302	.132	.509	.546
ty	Coefficie nt									
	Sig. (2- tailed)	.076	.517	.862	.898	.140	.467	.756	.198	.162
	N	8	8	8	8	8	8	8	8	8
Brands to Partnership s	Correlatio n Coefficie	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
	nt Sig. (2- tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437

	Ν	8	8	8	8	8	8	8	8	8
Brands to Innovation	Correlatio n Coefficie	.727*	.338	.177	.034	.790*	.242	.146	.641	.420
	nt Sig. (2- tailed)	.041	.413	.675	.936	.020	.564	.730	.086	.301
	N	8	8	8	8	8	8	8	8	8
Brands to Knowledge	Correlatio n Coefficie	.832*	.541	.332	.259	.746*	.423	.015	.641	.273
	nt Sig. (2- tailad)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Brands to Values	Correlatio n Coefficie nt	.662	.272	.074	055	.648	.243	.177	.564	.549
	Sig. (2- tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	Ν	8	8	8	8	8	8	8	8	8
Brands to IT	Correlatio n Coefficie nt	.657	.270	.074	054	.717*	.181	.219	.612	.546
	Sig. (2- tailed)	.076	.517	.862	.898	.045	.667	.602	.107	.162
	Ν	8	8	8	8	8	8	8	8	8
Brands to Alignment	Correlatio n Coefficie nt	.688	.268	.124	041	.727*	.240	.145	.586	.465
	Sig. (2- tailed)	.059	.520	.769	.924	.041	.567	.731	.127	.245
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Revenue	Correlatio n Coefficie nt	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
	Sig. (2- tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Efficiency	Correlatio n Coefficie nt	.779*	.414	.233	.111	.717*	.370	.060	.602	.379
	Sig. (2- tailed)	.023	.308	.578	.793	.045	.367	.888	.114	.355
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Functionali ty	Correlatio n Coefficie nt	.710	.000	.167	248	.659	.529	198	.300	.300
-	Sig. (2- tailed)	.074	1.000	.721	.592	.107	.222	.671	.513	.513
	Ν	7	7	7	7	7	7	7	7	7
	Correlatio n	.625	.073	.198	139	.661	.325	094	.373	.173

Innovation to	Coefficie nt									
Partnership	Sig. (2- tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Branding	Correlatio n Coefficie nt	.625	.073	.198	139	.661	.325	094	.373	.173
	Sig. (2- tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	Ν	8	8	8	8	8	8	8	8	8
Innovation to	Correlatio n	.732*	.289	.362	.102	.688	.452	188	.425	.015
Knowledge	Coefficie nt									
	Sig. (2- tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	Ν	8	8	8	8	8	8	8	8	8
Innovation to Values	Correlatio n Coefficie	.583	.000	.142	218	.594	.323	094	.315	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	Ν	8	8	8	8	8	8	8	8	8
Innovation to IT	Correlatio n Coefficie	.506	087	.369	196	.576	.239	.147	.231	.128
	Sig. (2- tailed)	.247	.852	.416	.674	.176	.606	.752	.619	.785
	N	7	7	7	7	7	7	7	7	7
Innovation to	Correlatio n	.583	.000	.142	218	.594	.323	094	.315	.224
Alignment	Coefficie nt									
	Sig. (2- tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
Knowledge to Revenue	Correlatio n Coefficie nt	.832*	.541	.332	.259	.746*	.423	.015	.641	.273
	Sig. (2- tailed)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Knowledge to	Correlatio n	.662	.272	.074	055	.648	.243	.177	.564	.549
Efficiency	Coefficie nt									
	Sig. (2- tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	N	8	8	8	8	8	8	8	8	8
Knowledge to Functionali ty	n Coefficie nt	.779	.414	.233	.111	.717	.370	.060	.602	.379
	Sig. (2- tailed)	.023	.308	.578	.793	.045	.367	.888	.114	.355

	Ν	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	.474	.073	.397	.000	.236	.586	362	032	339
to Partnership	n Coefficie nt									
5	Sig. (2- tailed)	.235	.864	.330	1.00	.573	.127	.378	.941	.412
	N	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	.688	.268	.124	041	.727*	.240	.145	.586	.465
to Brands	n Coefficie nt									
	Sig. (2- tailed)	.059	.520	.769	.924	.041	.567	.731	.127	.245
	Ν	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
Innovation	n Coefficie nt									
	Sig. (2- tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	Ν	8	8	8	8	8	8	8	8	8
Knowledge to Values	Correlatio n Coefficie	.361	.000	190	308	.425	.000	.331	.405	.723*
	Sig. (2- tailed)	.379	1.000	.651	.459	.294	1.000	.424	.320	.043
	N	8	8	8	8	8	8	8	8	8
Knowledge to IT	Correlatio n Coefficie nt	.625	.073	.198	139	.661	.325	094	.373	.173
	Sig. (2- tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	Ν	8	8	8	8	8	8	8	8	8
Knowledge	Correlatio	.662	.272	.074	055	.648	.243	.177	.564	.549
to Alignment	n Coefficie nt									
	Sig. (2- tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	Ν	8	8	8	8	8	8	8	8	8
Values to Revenue	Correlatio n Coefficie	.700	.218	.310	.022	.472	.586	283	.262	.068
	Sig. (2- tailed)	.053	.604	.456	.959	.237	.127	.496	.531	.873
	N	8	8	8	8	8	8	8	8	8
Values to Efficiency	Correlatio n	.583	.000	.142	218	.438	.452	188	.205	.224
	Coefficie nt Sig. (2-	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	tailed) N	8	8	8	8	8	8	8	8	8
	Correlatio	.732*	289	362	.102	.531	.581	281	.315	015
	n	.,52	.207	.502		.551	.501	.201	.515	.015

Values to Functionali	Coefficie nt									
ty	Sig. (2- tailed)	.039	.488	.378	.811	.175	.131	.500	.447	.972
	Ν	8	8	8	8	8	8	8	8	8
Values to Partnership s	Correlatio n Coefficie nt	.625	.073	.198	139	.425	.520	236	.206	.173
	Sig. (2- tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	Ν	8	8	8	8	8	8	8	8	8
Values to Brands	Correlatio n Coefficie nt	.583	.000	.142	218	.438	.452	188	.205	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	Ν	8	8	8	8	8	8	8	8	8
Values to Innovation	Correlatio n Coefficie nt	.273	330	144	531	.375	.074	.054	.135	.410
	Sig. (2- tailed)	.513	.425	.734	.175	.360	.862	.900	.750	.313
	N	8	8	8	8	8	8	8	8	8
Values to Knowledge	Correlatio n Coefficie nt	.700	.218	.310	.022	.709*	.390	142	.429	.068
	Sig. (2- tailed)	.053	.604	.456	.959	.049	.339	.738	.289	.873
	Ν	8	8	8	8	8	8	8	8	8
Values to IT	Correlatio n Coefficie nt	.738*	.291	.365	.103	.614	.520	236	.373	.015
	Sig. (2- tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Values to Alignment	Correlatio n Coefficie nt	.583	.000	.142	218	.438	.452	188	.205	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	Ν	8	8	8	8	8	8	8	8	8
IT to Revenue	Correlatio n Coefficie	.583	.000	.142	218	.594	.323	094	.315	.224
	nt Sig. (2-	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
IT to Efficiency	Correlatio n Coefficie nt	.583	.000	.142	218	.438	.452	188	.205	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594

	Ν	8	8	8	8	8	8	8	8	8
IT to Functionali ty	Correlatio n Coefficie	.276	333	145	537	.289	.149	.000	.073	.414
	nt Sig. (2- tailad)	.508	.420	.731	.170	.488	.725	1.000	.864	.308
	N	8	8	8	8	8	8	8	8	8
IT to Partnership	Correlatio n Coefficie	.587	.000	.143	220	.520	.390	142	.262	.226
	nt Sig. (2- tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	8	8	8	8	8	8	8	8	8
IT to Brands	Correlatio n Coefficie nt	.273	330	144	531	.375	.074	.054	.135	.410
	Sig. (2- tailed)	.513	.425	.734	.175	.360	.862	.900	.750	.313
	Ν	8	8	8	8	8	8	8	8	8
IT to Innovation	Correlatio n Coefficie nt	.657	.144	.252	058	.719*	.323	094	.425	.120
	Sig. (2- tailed)	.076	.733	.547	.891	.045	.436	.825	.294	.778
	Ν	8	8	8	8	8	8	8	8	8
IT to Knowledge	Correlatio n Coefficie nt	.587	.000	.143	220	.520	.390	142	.262	.226
	Sig. (2- tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	Ν	8	8	8	8	8	8	8	8	8
IT to Values	Correlatio n Coefficie nt	.583	.000	.142	218	.594	.323	094	.315	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	Ν	8	8	8	8	8	8	8	8	8
IT to Alignment	Correlatio n Coefficie nt	.583	.000	.142	218	.594	.323	094	.315	.224
	Sig. (2- tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	Ν	8	8	8	8	8	8	8	8	8
Alignment to Revenue	Correlatio n Coefficie nt	.727*	.338	.177	.034	.571	.423	.015	.487	.420
	Sig. (2- tailed)	.041	.413	.675	.936	.140	.296	.973	.221	.301
	Ν	8	8	8	8	8	8	8	8	8
	Correlatio n	.738*	.291	.365	.103	.614	.520	236	.373	.015

Alignment	Coefficie									
to	nt									
efficiency	Sig. (2- tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Alignment	Correlatio	.738*	.291	.365	.103	.614	.520	236	.373	.015
Functionali	Coefficie									
ty	nt									
	Sig. (2-	.037	.484	.374	.809	.105	.186	.573	.363	.972
	tailed)									
	N	8	8	8	8	8	8	8	8	8
Alignment	Correlatio	.732*	.289	.362	.102	.531	.581	281	.315	.015
Partnershin	II Coefficie									
s	nt									
	Sig. (2-	.039	.488	.378	.811	.175	.131	.500	.447	.972
	tailed)									
	Ν	8	8	8	8	8	8	8	8	8
Alignment	Correlatio	319	706	476	678	583	.230	750*	735*	186
to Brands	n G CC :									
	Coefficie									
	m Sig (2	442	051	222	065	120	585	032	028	650
	tailed)	.442	.001	.255	.005	.12)	.565	.052	.050	.007
	N	8	8	8	8	8	8	8	8	8
	0.1.1	520*	200	2/2	102	600	150	100	105	015
Alignment	Correlatio	.732	.289	.362	.102	.688	.452	188	.425	.015
Innovation	n Coefficie									
	nt									
	Sig. (2- tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	N	8	8	8	8	8	8	8	8	8
	a								100	0.00
Alignment	Correlatio	.700	.218	.310	.022	.709	.390	142	.429	.068
to Knowledge	n Coefficie									
itilow ledge	nt									
	Sig. (2-	.053	.604	.456	.959	.049	.339	.738	.289	.873
	tailed)									
	Ν	8	8	8	8	8	8	8	8	8
Alignment	Correlatio	.738*	.291	.365	.103	.614	.520	236	.373	.015
to Values	n									
	Coefficie nt									
	Sig. (2-	.037	.484	.374	.809	.105	.186	.573	.363	.972
	tailed)									
	Ν	8	8	8	8	8	8	8	8	8
Alignment	Correlatio	.583	.000	.142	218	.594	.323	094	.315	.224
to IT	n Carfe									
	Coefficie									
	Sig. (2-	.130	1 000	738	.604	.121	.436	.825	.447	594
	tailed)		1.000	.,					/	.071
	N	8	8	8	8	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX D: Correlations on	knowledge	management
------------------------------------	-----------	------------

	conclutions	on renowied	ige management									
			Personal/tec hnical Understandi ng	Critical Experie nces	Comprehensi veness	Accessib ility	Comprehensi veness	Accessib ility	Secur ity	Custo mers	Competi tors	Inter net
Spearm	Revenue	Correla	410	602	708*	634	708*	634	.616	068	.635	.410
an's rho	to Efficienc y	tion Coeffic ient Sig (2-	314	115	050	091	050	091	104	874	091	314
		tailed)	8	8	8	8	8	8	8	8	8	8
	P	0 1	270	722*	571	71.2*	571	712*	00.4*	000	072**	279
	to Function ality	tion Coeffic ient	378	723	5/1	/13	5/1	/13	.904	.000	.873	.378
		Sig. (2- tailed)	.356	.043	.139	.047	.139	.047	.002	1.000	.005	.356
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to Partners hip	Correla tion Coeffic ient	589	606	713*	639	713*	639	.620	.136	.640	.589
		Sig. (2- tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to Brands	Correla tion Coeffic ient	375	717*	567	707*	567	707*	.896* *	.000	.866**	.375
		Sig. (2- tailed)	.360	.045	.143	.050	.143	.050	.003	1.000	.005	.360
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to innovati on	Correla tion Coeffic ient	750 [*]	194	567	265	567	265	.000	.433	.072	.750*
		Sig. (2- tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to Knowled ge	Correla tion Coeffic ient	756 [*]	248	571	312	571	312	.090	.436	.153	.756*
		Sig. (2- tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to Values	Correla tion Coeffic ient	750*	299	567	354	567	354	.179	.433	.231	.750*
		Sig. (2- tailed)	.032	.472	.143	.390	.143	.390	.671	.284	.582	.032
		Ν	8	8	8	8	8	8	8	8	8	8
	Revenue to IT	Correla tion	775*	309	586	365	586	365	.185	.447	.239	.775*

Correlations on Knowledge Management

	Coeffic ient										
	Sig. (2- tailed)	.024	.457	.127	.374	.127	.374	.661	.267	.569	.024
	N	8	8	8	8	8	8	8	8	8	8
Revenue to Alignme	Correla tion Coeffic	756*	407	571	445	571	445	.361	.436	.393	.756*
	Sig. (2- tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Efficienc v to	Correla tion	849**	392	.157	.267	.157	.267	122	.719*	.105	.340
Revenue	Coeffic ient										
	Sig. (2- tailed)	.008	.336	.711	.523	.711	.523	.774	.044	.805	.410
	Ν	8	8	8	8	8	8	8	8	8	8
Efficienc y to Function ality	Correla tion Coeffic ient	639	354	703	425	703	425	.195	.201	.262	.639
·	Sig. (2- tailed)	.088	.389	.052	.294	.052	.294	.644	.633	.531	.088
	N	8	8	8	8	8	8	8	8	8	8
Efficienc y to Partners hips	Correla tion Coeffic ient	589	408	713*	472	713*	472	.282	.136	.340	.589
1	Sig. (2- tailed)	.124	.315	.047	.237	.047	.237	.499	.748	.410	.124
	Ν	8	8	8	8	8	8	8	8	8	8
Efficienc y to Branding	Correla tion Coeffic ient	468	504	708*	552	708*	552	.448	.000	.487	.468
	Sig. (2- tailed)	.242	.203	.050	.156	.050	.156	.266	1.000	.221	.242
	Ν	8	8	8	8	8	8	8	8	8	8
Efficienc y to innovati on	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Efficienc y to	Correla tion	644	406	708*	469	708*	469	.280	.203	.338	.644
ge	Coeffic ient Sig. (2- tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Efficienc y to Values	Correla tion Coeffic ient	775*	309	586	365	586	365	.185	.447	.239	.775*
	Sig. (2- tailed)	.024	.457	.127	.374	.127	.374	.661	.267	.569	.024

	Ν	8	8	8	8	8	8	8	8	8	8
Efficienc y to IT	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Efficienc y to Alignme nt	Correla tion Coeffic ient Sig (2-	589	606	713*	639	713*	639	.620	.136	.640	.589
	tailed)	.124	.112	.047	.000	.047	.000	.101	./48	.000	.124
Function ality to Revenue	Correla tion Coeffic	585	357	708*	428	708*	428	.196	.135	.264	.585
	Sig. (2- tailed)	.128	.386	.050	.291	.050	.291	.642	.750	.528	.128
	Ν	8	8	8	8	8	8	8	8	8	8
Function ality to Efficienc y	Correla tion Coeffic ient	585	357	708*	428	708*	428	.196	.135	.264	.585
	Sig. (2- tailed)	.128	.386	.050	.291	.050	.291	.642	.750	.528	.128
	N	8	8	8	8	8	8	8	8	8	8
Function ality to Partners hips	Correla tion Coeffic ient	644	406	708*	469	708*	469	.280	.203	.338	.644
	Sig. (2- tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Function ality to Brands	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Function ality to Innovati on	Correla tion Coeffic ient	750	194	567	265	567	265	.000	.433	.072	.750
	Sig. (2- tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Function ality to Knowled ge	Correla tion Coeffic ient	599	150	647	248	647	248	.120	.328	.216	.899* *
	Sig. (2- tailed)	.155	.749	.116	.592	.116	.592	.798	.472	.642	.006
	Ν	7	7	7	7	7	7	7	7	7	7
	Correla tion	750 [*]	194	567	265	567	265	.000	.433	.072	.750*

Function	Coeffic										
Values	sig. (2-	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	tailed) N	8	8	8	8	8	8	8	8	8	8
Function	Correla	- 756*	- 407	- 571	- 445	- 571	- 445	361	436	393	756*
ality to IT	tion Coeffic ient	750	-,+07		++5		++5	.501	.450	.575	.750
	Sig. (2- tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Function ality to	Correla	585	602	708*	634	708*	634	.616	.135	.635	.585
Alignme nt	Coeffic										
	Sig. (2- tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	Ν	8	8	8	8	8	8	8	8	8	8
Partners hips to Revenue	Correla tion Coeffic	639	452	703	507	703	507	.361	.201	.409	.639
	Sig. (2- tailed)	.088	.261	.052	.200	.052	.200	.379	.633	.314	.088
	N	8	8	8	8	8	8	8	8	8	8
Partners hips to Efficienc	Correla tion Coeffic	527	406	708*	469	708*	469	.280	.068	.338	.527
у	Sig. (2-	.180	.319	.050	.241	.050	.241	.502	.874	.413	.180
	N	8	8	8	8	8	8	8	8	8	8
Partners hips to Function ality	Correla tion Coeffic ient	644	357	708*	428	708*	428	.196	.203	.264	.644
	Sig. (2- tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	Ν	8	8	8	8	8	8	8	8	8	8
Partners hips to Brands	Correla tion Coeffic ient	750*	403	567	442	567	442	.359	.433	.390	.750*
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Partners hips to Innovati	Correla tion Coeffic	756*	196	571	267	571	267	.000	.436	.073	.756*
on	Sig. (2- tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	N	8	8	8	8	8	8	8	8	8	8
Partners hips to Knowled ge	Correla tion Coeffic ient	750 [*]	194	567	265	567	265	.000	.433	.072	.750*
	Sig. (2- tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032

	Ν	8	8	8	8	8	8	8	8	8	8
Partners hips to	Correla tion	756*	354	571	401	571	401	.271	.436	.313	.756*
values	ient Sig. (2-	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	tailed) N	8	8	8	8	8	8	8	8	8	8
Partners	Correla	756*	407	571	445	571	445	.361	.436	.393	.756*
hips to IT	tion Coeffic ient										
	Sig. (2- tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
Partners hips to Alignme nt	Correla tion Coeffic ient	750*	403	567	442	567	442	.359	.433	.390	.750*
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	Ν	8	8	8	8	8	8	8	8	8	8
Brands to Revenue	Correla tion Coeffic ient	639	354	703	425	703	425	.195	.201	.262	.639
	Sig. (2- tailed)	.088	.389	.052	.294	.052	.294	.644	.633	.531	.088
	Ν	8	8	8	8	8	8	8	8	8	8
Brands to Efficienc	Correla tion Coeffic	585	602	708*	634	708*	634	.616	.135	.635	.585
у	Sig. (2- tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	N	8	8	8	8	8	8	8	8	8	8
Brands to Function ality	Correla tion Coeffic ient	585	602	708*	634	708*	634	.616	.135	.635	.585
	Sig. (2- tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	N	8	8	8	8	8	8	8	8	8	8
Brands to Partners hips	Correla tion Coeffic ient	644	406	708*	469	708*	469	.280	.203	.338	.644
	Sig. (2- tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to Innovati	Correla tion Coeffic	644	504	708*	552	708*	552	.448	.203	.487	.644
on	ient Sig. (2- tailed)	.085	.203	.050	.156	.050	.156	.266	.630	.221	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to	Correla tion	644	357	708*	428	708*	428	.196	.203	.264	.644

Knowled ge	Coeffic ient										
U	Sig. (2- tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to Values	Correla tion Coeffic	589	606	713*	639	713*	639	.620	.136	.640	.589
	Sig. (2- tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	N	8	8	8	8	8	8	8	8	8	8
Brands to IT	Correla tion Coeffic ient	585	602	708*	634	708*	634	.616	.135	.635	.585
	Sig. (2- tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	Ν	8	8	8	8	8	8	8	8	8	8
Brands to Alignme nt	Correla tion Coeffic ient	639	549	703	589	703	589	.528	.201	.557	.639
	Sig. (2- tailed)	.088	.159	.052	.124	.052	.124	.179	.633	.151	.088
	N	8	8	8	8	8	8	8	8	8	8
Innovati on to Revenue	Correla tion Coeffic ient	644	406	708*	469	708*	469	.280	.203	.338	.644
	Sig. (2- tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Innovati on to Efficienc y	Correla tion Coeffic ient	657	464	723*	521	723*	521	.371	.207	.421	.657
	Sig. (2- tailed)	.076	.246	.043	.185	.043	.185	.365	.623	.299	.076
	N	8	8	8	8	8	8	8	8	8	8
Innovati on to Function ality	Correla tion Coeffic ient	966	516	529	300	529	300	.258	.529	.316	.725
	Sig. (2- tailed)	.000	.235	.222	.513	.222	.513	.576	.222	.490	.065
	Ν	7	7	7	7	7	7	7	7	7	7
Innovati on to Partners hip	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Innovati on to Branding	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030

	Ν	8	8	8	8	8	8	8	8	8	8
Innovati	Correla	750 [*]	194	567	265	567	265	.000	.433	.072	.750*
on to	tion										
ge	ient										
8	Sig. (2-	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	tailed) N	8	8	8	8	8	8	8	8	8	8
		*	0		0	0	0			0	
Innovati on to	Correla	750*	403	567	442	567	442	.359	.433	.390	.750*
Values	Coeffic										
	ient										
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	Ν	8	8	8	8	8	8	8	8	8	8
Innovati	Correla	717	363	516	418	516	418	.362	.523	.407	.717
on to IT	tion										
	ient										
	Sig. (2-	.070	.424	.236	.351	.236	.351	.425	.228	.365	.070
	tailed)	7	7	7	7	7	7	7	7	7	7
	IN	/	/	/	/	/	/	/	/	/	/
Innovati	Correla	750*	403	567	442	567	442	.359	.433	.390	.750*
on to Alignme	tion Coeffic										
nt	ient										
	Sig. (2-	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	tailed)	8	8	8	8	8	8	8	8	8	8
	~ .			=00*		=00*		10.5			
ge to	tion	644	357	708	428	708	428	.196	.203	.264	.644
Revenue	Coeffic										
	ient								(20)		
	Sig. (2- tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	N	8	8	8	8	8	8	8	8	8	8
Knowled	Correla	589	606	713*	639	713*	639	.620	.136	.640	.589
ge to	tion										
Efficienc	Coeffic										
9	Sig. (2-	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	tailed)										
	N	8	8	8	8	8	8	8	8	8	8
Knowled	Correla	657	464	723*	521	723*	521	.371	.207	.421	.657
ge to Function	tion Coeffic										
ality	ient										
	Sig. (2-	.076	.246	.043	.185	.043	.185	.365	.623	.299	.076
	tailed)	o	o	0	0	0	•	0	0	0	0
	1N	8	0	8	8	8	8	0	0	8	0
Knowled	Correla	630	.188	.190	.505	.190	.505	474	.873**	211	.630
Partners	Coeffic										
hips	ient										
	Sig. (2- tailed)	.094	.655	.651	.202	.651	.202	.235	.005	.616	.094
	N	8	8	8	8	8	8	8	8	8	8
	Correla	639	549	703	589	703	589	.528	.201	.557	.639
	tion										

Knowled	Coeffic										
Brands	Sig. (2- tailed)	.088	.159	.052	.124	.052	.124	.179	.633	.151	.088
	N	8	8	8	8	8	8	8	8	8	8
Knowled ge to Innovati on	Correla tion Coeffic ient	644	406	708*	469	708*	469	.280	.203	.338	.644
	Sig. (2- tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	Ν	8	8	8	8	8	8	8	8	8	8
Knowled ge to Values	Correla tion Coeffic ient	378	723*	571	713*	571	713*	.904* *	.000	.873**	.378
	Sig. (2- tailed)	.356	.043	.139	.047	.139	.047	.002	1.000	.005	.356
	Ν	8	8	8	8	8	8	8	8	8	8
Knowled ge to IT	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
K 11	N 1	500		712*	(20	712*	(20)	(20	120	6	500
ge to Alignme nt	tion Coeffic ient	389	006	/15	039	/15	639	.620	.130	.640	.389
	Sig. (2- tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
** 1	N	8	8	8	8	8	8	8	8	8	8
to Revenue	tion Coeffic ient	/56	248	5/1	312	5/1	312	.090	.436	.153	./56
	Sig. (2- tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
** 1	N	8	8	8	8	8	8	8	8	8	8
Values to Efficienc y	Correla tion Coeffic ient	/50	403	567	442	567	442	.359	.433	.390	.750
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Values to	Correla tion	750 [*]	194	567	265	567	265	.000	.433	.072	.750*
ality	ient Sig. (2-	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Values to Partners hips	Correla tion Coeffic ient	756*	354	571	401	571	401	.271	.436	.313	.756*
	Sig. (2- tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030

	Ν	8	8	8	8	8	8	8	8	8	8
Values	Correla	750*	403	567	442	567	442	.359	.433	.390	.750*
to Brands	tion Coeffic										
	ient										
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Values	Correla	571	546	432	539	432	539	.683	.330	.660	.571
to Innovati	tion Coeffic										
on	ient										
	Sig. (2- tailed)	.139	.161	.285	.168	.285	.168	.062	.425	.075	.139
	N	8	8	8	8	8	8	8	8	8	8
Values	Correla	756*	248	571	312	571	312	.090	.436	.153	.756*
to Knowled	tion Cooffic										
ge	ient										
	Sig. (2-	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	N	8	8	8	8	8	8	8	8	8	8
Values	Correla	756*	196	571	267	571	267	.000	.436	.073	.756*
to IT	tion										
	Coeffic ient										
	Sig. (2-	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	tailed) N	8	8	8	8	8	8	8	8	8	8
Values	Canala	750*	402	5(7	442	5(7	142	250	422	200	750*
to	tion	750	405	307	442	307	442	.339	.435	.390	.750
Alignme	Coeffic										
III	Sig. (2-	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	tailed)	0	o	Q	0	0	0	0	0	0	0
	IN	0	0	0	0	0	0	0	0	0	0
IT to Revenue	Correla tion	750*	403	567	442	567	442	.359	.433	.390	.750*
	Coeffic										
	ient Sig. (2-	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	tailed)										
	N	8	8	8	8	8	8	8	8	8	8
IT to Efficienc	Correla	750 [*]	403	567	442	567	442	.359	.433	.390	.750 [*]
у	Coeffic										
	ient Sig (2-	032	377	142	273	142	272	383	284	340	032
	tailed)	.052	.322	.143	.213	.143	.213	.303	.204	.940	.052
	Ν	8	8	8	8	8	8	8	8	8	8
IT to	Correla	577	552	436	544	436	544	.690	.333	.667	.577
Function ality	tion Coeffic										
	ient	10.1		200	100	200	1/2	0.50	100		124
	Sıg. (2- tailed)	.134	.156	.280	.163	.280	.163	.058	.420	.071	.134
	N	8	8	8	8	8	8	8	8	8	8
	Correla	756*	407	571	445	571	445	.361	.436	.393	.756*
	tion										

IT to	Coeffic										
hips	Sig. (2-	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
IT to Brands	Correla tion Coeffic ient	571	546	432	539	432	539	.683	.330	.660	.571
	Sig. (2- tailed)	.139	.161	.285	.168	.285	.168	.062	.425	.075	.139
	Ν	8	8	8	8	8	8	8	8	8	8
IT to Innovati on	Correla tion Coeffic ient	750*	299	567	354	567	354	.179	.433	.231	.750*
	Sig. (2- tailed)	.032	.472	.143	.390	.143	.390	.671	.284	.582	.032
	Ν	8	8	8	8	8	8	8	8	8	8
IT to Knowled ge	Correla tion Coeffic ient	756*	407	571	445	571	445	.361	.436	.393	.756*
	Sig. (2- tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
11 to Values	tion Coeffic ient	/50	403	567	442	567	442	.359	.433	.390	.750
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
IT to Alignme nt	Correla tion Coeffic ient	750°	403	567	442	567	442	.359	.433	.390	.750*
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
4.1:	N C I	0	0	0 700*	6	0 700*	6	0	0	0	0
nt to Revenue	tion Coeffic ient	644	304	708	552	/08	332	.448	.205	.487	.044
	Sig. (2- tailed)	.085	.203	.050	.156	.050	.156	.266	.630	.221	.085
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to efficienc y	Correla tion Coeffic ient	756	196	571	267	571	267	.000	.436	.073	.756*
	Sig. (2- tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to Function ality	Correla tion Coeffic ient	756*	196	571	267	571	267	.000	.436	.073	.756*
	Sig. (2- tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030

	N	8	8	8	8	8	8	8	8	8	8
Alignme nt to Partners hips	Correla tion Coeffic ient	750 [*]	194	567	265	567	265	.000	.433	.072	.750*
	Sig. (2- tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to Brands	Correla tion Coeffic ient	167	.053	.322	.210	.322	.210	146	.064	295	056
	Sig. (2- tailed)	.693	.901	.437	.619	.437	.619	.730	.880	.478	.896
	N	8	8	8	8	8	8	8	8	8	8
Alignme nt to Innovati on	Correla tion Coeffic ient	750*	194	567	265	567	265	.000	.433	.072	.750*
	Sig. (2- tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to Knowled ge	Correla tion Coeffic ient	756*	248	571	312	571	312	.090	.436	.153	.756*
	Sig. (2- tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to Values	Correla tion Coeffic ient	756*	196	571	267	571	267	.000	.436	.073	.756*
	Sig. (2- tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	Ν	8	8	8	8	8	8	8	8	8	8
Alignme nt to IT	Correla tion Coeffic ient	750*	403	567	442	567	442	.359	.433	.390	.750*
	Sig. (2- tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	Ν	8	8	8	8	8	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).