

# Digital Technology and Marketing Management Capability: Achieving Growth in SMEs

## Abstract

**Purpose** – The intention of this study is to evaluate the relationships between digital technology, tangible/intangible assets and marketing capabilities in order to gain more insight into the factors related to SMEs’ growth in the UK. Based on resource-advantage theory, this research addresses the question “*to what extent does digital technology influence marketing capability which leads to companies’ growth?*”

**Design/methodology/approach** – The data was gathered through 21 in-depth interviews with managers from different multinational organizations and 6 focus groups with employees.

**Findings** – The study identifies the two key components of digital technology as information quality and service convenience. In addition, the relationships between digital technology, tangible/intangible assets, and marketing capabilities perform the significant role of facilitator of a company’s growth.

**Research limitations/implications** – The focus on UK SMEs limits the generalisability of the results. Further study should be collected in other sectors and country settings in order to examine the associations identified in the current study.

**Originality/value** – This study identifies the main impacts of digital technology on intellectual/physical assets. While managers and employees have specified that marketing capability is significant for organizations, there are a few other areas of concern with regard to consequences related to a company’s growth, competence, and core competence, particularly in a SME’s setting.

**Keywords** – Digital Technology, Information Quality, Service Convenience, Design Innovation, Marketing Capabilities, Growth, Competencies, SMEs

## Introduction

Core competence has been a useful tool for organizational strategists since it first appeared in the 1960s. It was defined by Andrews (1971) as “what the company can do particularly well” (p. 46) and an earlier paper by Ansoff (1965) called it a ‘common thread’ (p.105). Ansoff (1965) described business competencies as “a relationship between present and future product markets which would enable outsiders to perceive where the firm is heading, and the inside management to give it guidance” (p.105). A significant study of core competence was carried out by Prahalad and Hamel (1990) who characterized it as the core system that “provides nourishment, sustenance, and stability” (p.82).

The experiential study of marketing capabilities is also being given increased attention in the academic literature (Blesa and Ripolles, 2008; Ribeiro et al., 2009; Tsai and Shih, 2004; Vorhies and Morgan, 2005; Weerawardena, 2003). Marketing capabilities employ a substantial and optimistic view of customers' satisfaction, which eventually indicates a superior organizational performance in terms of sales, profit and competence (Santos-Vijande et al., 2012).

The aim of this paper is greater understanding of digital technology and its influence on design innovation management capability which leads to a company's growth. Moreover, this study highlights how information quality and its antecedents (information about integrated promotion, product pricing and transactions) in co-operation with service convenience and its antecedents (integrated information access, order fulfilment, customer service) provide greater understanding of the influence of digital technology on design and innovation. Resource-advantage theory will be adopted to examine the relationship between information quality, service convenience, digital technology, tangible/intangible assets, marketing capability, and core competencies. This research evaluates the relationships between these constructs in order to gain more insight and clarification of the factors related to core competence.

This article contributes to the growing literature on digital technology and devices which provide insight into innovation. As claimed by Dewett (2003), technologies provide workers with access to original information by permitting them to link up with peer repositories and

1 with information experts. Digital technology contributes to innovation and management  
2 capability which leads to the growth of SMEs.

3 The literature of technology adoption delivers an understanding of how informed government  
4 policies could help small and medium size enterprises to achieve both growth and innovation  
5 (Blackburn et al., 2008). The SME's ability to learn and acquire knowledge prepares it for  
6 further steps of growth, which ultimately determines whether the SME is able to progress to  
7 the next stage of development (Blackburn et al., 2008). In particular, this learning aptitude  
8 links to knowledge of management capabilities and technology. According to Fruhling and  
9 Siau (2007) the human capital accessible within the organization is likely to be a fundamental  
10 factor in effective innovation. Consequently, management strengths should be focused on  
11 nurturing and exploiting these strategic resources (Wernerfelt, 1984).

12  
13 This paper is structured as follows. The current study outlines the theoretical background of  
14 information quality, service convenience, digital technology, tangible/ intangible assets,  
15 marketing capability and core competence and its relationship between the dynamics.  
16 Afterwards, the author clarifies research methods. Next, the method is outlined and the results  
17 from our analysis are presented. Finally, the research contributions and limitations are  
18 summarized along with suggestions for future research.

## 20 **Literature review**

### 21 *Digital technology*

22 Digital technology is progressively implemented by the firms in order to respond positively  
23 to customer needs and, at the same time, improve customer-side operations (Walsh 2007). It  
24 supports the interests of consumers and businesses and, at the same time, helps drive sales  
25 and increases efficiencies by reducing costs. Information quality can be transferred through  
26 digital technology (Watson et al., 2006). Organizations are strongly focused on the use of  
27 digital technology to enhance the quality of information provided to their customers (Foroudi  
28 et al., 2016). In general, technological innovation can be understood as the employment of a  
29 product with enhanced performance appearances so as to distribute new or enhanced services  
30 to the customer (Oh and Teo, 2010; Gorla et al., 2010). High quality information transmitted  
31 in an appropriate way has a huge impact on customer behavior and marketing (Oh and Teo,  
32 2010). Information quality consists of integrated promotion which includes consistency in  
33 branding to support customers; integrated product and pricing information that guarantees

1 reliability in product images and prices through retail channels; integrated information  
2 transaction which is the collection of a customer's on-line transactions held by retailers in  
3 order to provide personalized information and services (Oh and Teo, 2010).

4  
5 Service convenience refers to consumers' interest in conserving time and effort. Bin and Teo  
6 (2010) state that "processes of integrated information access, integrated order fulfilment, and  
7 integrated customer service" (p.42) play an essential part in achieving service convenience.  
8 Integrated information access in online stores allows the customer to obtain information  
9 related to the product, its availability and locations (Ray et al., 2005; Tallon, 2010).  
10 Integrated order fulfillment allows seamless order fulfillment to the customers, by providing  
11 product availability, easy and quick purchase, and prompt delivery (Porter, 1980). Integrated  
12 customer service provides excellent customer service and support also products purchased  
13 online can be exchanged or returned to the stores (Banker et al., 2006).

14  
15 Digital technologies play a significant part in almost every organization (Setia et al., 2013)  
16 and have enabled co-operation among firms, information storage and analysis and improved  
17 customer service performance (Ray et al., 2005). They have had an enormous impact on  
18 customer service performance (Ray et al., 2005) and have enhanced the ability to accomplish  
19 service convenience (Eisenhardt and Martin, 2000; Pavlou and El Sawy, 2006; Teece et al.,  
20 1997).

#### 21 22 *Tangible/intangible assets and marketing capability*

23 Marketing capability requires the use of digital technology (Teece, 2007), as digital  
24 technology determines the organizational capability to research customers, competitors, and  
25 the broader market environment (Day, 1994). Marketing capability can be implemented by  
26 utilising a variety of processes, including sustaining relationships with customers and  
27 suppliers as well as participating in professional associations and using best practices. These  
28 processes require a high level of use of the tangible/intangible assets of a firm. The assets of a  
29 firm itself are defined with a wide variety of meanings. Grant states that "assets are inputs  
30 into the production process - they are the basic unit of analysis", where a capability is  
31 identified as the capacity for a team of resources to perform some task or activity (Hafeez, et  
32 al., 2006). Marketing capability processes generate inputs for the requirements of  
33 reconfigured operational capabilities (Eisenhardt and Martin, 2000).

## Method and analysis

This paper employs qualitative data collection and analysis to uncover patterns, themes, and categories in order to make judgments about “what is really significant and meaningful in the data” (Patton, 2001, p.406). This study conducted 21 in-depth interviews with top managers in the UK from different SMEs and 6 focus groups with a total of 35 people (21 male and 14 female) (see Table 1). This data helped the author to generate a deeper understanding about the research (Palmer and Gallagher, 2007; Yin, 1984), discover new evidence, reveal new dimensions of the problem and to secure vivid, accurate inclusive accounts that are based on personal experience (Foroudi et al., 2016). A conducive and comfortable environment was provided for each interview (Malhotra and Birks, 2000). On average, an interview lasted one hour and half and all the interviews were recorded by two recorders and transcribed verbatim, which ensured the reliability of the data (Andriopoulos and Lewis, 2009).

The research aim was to understand to what extent digital technology influences marketing capability which leads to development of core competence and the SME’s growth. This study followed Foroudi et al.’s (2014, 2016) recommendation to conduct in-depth interviews using a semi-structured technique by developing a qualitative protocol and designing direct questions to discover essential motivation, beliefs, attitudes and feelings about the topic. The interviews were conducted face-to-face between October 2015 and September 2016.

<<<Table 1 Here>>>

To assess the qualitative results and improve the validity and reliability of the study, triangulation was used in two stages based on Creswell and Miller’s (2000) suggestions. We developed codes by addressing the problem areas, research questions, and key constructs (Palmer and Gallagher, 2007). Then, we used QSR NVivo software for data administration, data storage, and retrieval. NVivo is appropriate software to assist in the interpretation of the text and inter-relationships between codes. In addition, the data was examined to derive the nodes, which influence the inter-relationships of the thematic ideas, the nodes (themes) were reviewed for consistency, and an iterative process was followed throughout the data analysis. Subsequently, the transcripts of the interviews were analyzed. Significant statements which were directly associated with the research question were identified. By identifying a

significant word, the results obtained by means of the open questions were scanned and linked directly to the research question in order to develop a theory.

## **Results and discussion**

The literature review revealed that concepts of core competence and its dynamics are not clearly defined. In order to address the gap, a conceptual framework was developed that includes the key research constructs (Figure 1) based on the literature and qualitative study. Generating an employee's-level conceptual framework developed from resource advantage theory demonstrates that: (1) there are relationships between information quality, service convenience, digital technology, tangible/ intangible assets, marketing capability, and company growth; and that (2) there are connections between other theoretically acknowledged variables. One research question is addressed "to what extent does digital technology influence marketing capability which leads to a company's growth?"

The findings, from the study suggest that tangible/intangible assets and digital technology influenced marketing capabilities, and that marketing capabilities influenced the SMEs' growth and development of their core competencies. Every entrepreneur had a unique perception but the majority claimed that the SME was an increasingly important phenomenon. Innovations and knowledge may lead to the utilisation of new or improved products or processes. The managers of these SMEs have confirmed that to be successful in meeting adversity one should possess a good knowledge of all the business functions. The manager who masters these elements can be successful in future developments.

This paper evaluates the relationships between the constructs in order to gain more insight and clarification of the factors related to core competence in UK SMEs. Nevertheless, this study is one of the first to empirically confirm the assumption made by researchers (Mahoney and Pandian, 1992) that it is an understanding of digital technology, tangible/intangible assets and its influence on marketing capability which leads to core competence. This would result in insights that might make a substantial addition to present knowledge and support to future research in this field (Hafeez et al., 2016). To identify the core competencies of a firm, it is essential to examine the features of its components (Dierickx and Cool, 1989).

Moreover, this paper highlights how information quality and its antecedents (information

concerning integrated promotion and product pricing and transactions) in conjunction with service convenience and its antecedents (integrated information access, order fulfilment, customer service) provides greater understanding of digital technology which influences tangible/intangible assets, marketing capability and competence. Employing data from interviews in UK SMEs, this paper attempts to scrutinise the relationship between information quality, service convenience, tangible/intangible assets, digital technology, marketing capability, competence and core competencies.

“Business concept” was defined by interviewees as a perception of how to manage and carry out an economic activity; it involves assumptions and behavioural rules. A business concept innovation reconceives or breaks with widely accepted ideas and behaviors about how a business should be, changing the perception of how to run the business. To answer the question ‘how did you action your business concept into reality?’ the following comments illustrate the managers’ assessments:

*“...there it was ‘the wonky teapot on gum tree. I made some notes at home about what I will be discussing and then I straight away talk to owner of business, and I manage to complete deal but the business concept did not finish there”.*

*“...I was working in catering industry for 10 years. After gaining so much experience and being passionate about the products and customer service I have decide to open my own business. I put all my heart into it and always give 100%. My customers are my guests and I treat everyone as a special”.*

Innovation gives rise to a new or significantly improved mental model relating to a business, which leads to substantial modifications in a firm’s methods and general knowledge. This, in turn, makes it possible for catering companies, for example, to develop their own innovations where knowledge and technologies are applied in a new way. Moreover, business concepts help SMEs to achieve competitiveness. Likewise, service and product characteristics will differ among firms with different business concepts. The managers should try to invent a new business concept which will help them devise ways to grow their company.

Competitive advantage is fulfilling an unmet consumer need in a market segment (Hinterhuber, 2013). Burns (2011) believes that innovation and opportunity are key to gaining competitive advantage. A business needs to innovate with its products and services in order to gain competitive advantage in the market. Innovation can maintain and improve

1 competitive advantage and also extend the business's life. Managers must first identify their  
2 competencies that give them competitive advantage over other similar companies in the same  
3 market place. Moreover, managers stated that sources of advantage were "... *quality good*  
4 *product*"... and "... *high quality product and the best customer service*".

5 If a company does not develop new technologies or new scientific knowledge, then where  
6 can their innovations come from? The answer to this question requires recognising the  
7 existence of non-technological knowledge. In SMEs this knowledge is specific to the  
8 company. In other words, it is knowledge accumulated from the learning process of each  
9 business process. Every firm, in every industry, gains specific knowledge from its activities  
10 (Aldebert et al., 2011), which comes from the firm's market, organization, production and  
11 delivery process and so on. Such innovation changes dramatically as business and products  
12 are conceived, creating a pattern about how and what knowledge, or other firm resources,  
13 must be used (Gupta et al., 2016). For example, a catering SME could introduce a side-line of  
14 delivery options for local businesses and organizations. Furthermore, these catering SMEs  
15 could host a small special event in their premises such as art days or cultural music nights.  
16 Bringing cultural themes into their businesses could be good way to attract new customers  
17 given that they have small marketing budgets.

18  
19 Digital marketing leveraging social media channels provides SMEs with a new innovative  
20 way to interact with customers, providing an alternative, cost effective, and attractive  
21 proposition. The competitive environment reflects how businesses compete and function  
22 within an environment. In a place where there is a demand for a particular product, it is likely  
23 there will be more sellers with similar products. Interviews included the question, 'do you  
24 think your products are competitive taking the current demand into consideration?' The  
25 following quotations reflect the answers:

26                   "*...Maybe some people will be attracted. But if it's different, and you*  
27                   *don't want that sort of customer really, in general, who get attracted*  
28                   *with the price. That is foolish doing that anyway for... "*

29  
30                   "*...My customers are mainly local people. They love the products and*  
31                   *the atmosphere in the place. Also we adapt our menu to customer's*  
32                   *needs ... allergies, special products intolerance and level of spices. In*  
33                   *my culture we tend to eat very spice, but of course not everyone can*  
34                   *take it the same level ...so we have to take this also into our*  
35                   *considerations ... "*



1 SMEs have direct and indirect competitors. They are surrounded by many competitors who  
2 sell similar products at lower prices. In turn, they offer different kinds of benefits to their  
3 customers. For example, a restaurant offers discounts to students while another does not  
4 charge corkage so their customers can bring their own alcohol without incurring an extra  
5 charge. Indirect competitors like local supermarkets offer a substitute by selling ready meals.  
6 However, the food is the best quality since it is not only tasty but also healthy and their meals  
7 are unique. In order to gain new customers and keep existing customers happy, one of the  
8 shops offers online take-out ordering through its website. Because of the locations the  
9 demand for their product is always very high. The owners should concentrate on an  
10 individual product to ensure they are being competitive all the time and improve growth.

11  
12 Growth and development can be summarised as business owners wanting to increase their  
13 market share by expanding the business. This can be in the form of increasing floor space,  
14 marketing initiatives, and employing further employees to build on current successes and  
15 exploit opportunities. To understand the entrepreneurs' growth and development to date,  
16 interviewees stated:

17 *".... I invested fifteen thousand pounds into my business...I break even*  
18 *at the end of my 6 months...I very happy".*

19  
20 *"... I have opened my place 24 years ago ...due to my hard work and*  
21 *my passion my business is making more money every year..."*  
22

23 Currently one of the business owners is an example of an entrepreneur bringing his idea  
24 forward and implementing it which resulted in employment opportunities for local residents.  
25 Although the business has been running for only 6-8 months it is estimated to be worth four  
26 times more than its purchase price. Taking into consideration such a short period of time and  
27 current value of the business it can be assumed that the value of this business by the end of its  
28 financial year will increase, even though they face so many challenges in managing the  
29 business.

30  
31 According to Daft and Marcic (2004) challenge management reflects difficulties and  
32 problems managers and owners can face in running and managing their business on a daily  
33 basis. SME owners face many challenges in globalized markets. However, the greatest  
34 problem is how to effectively manage the all encompassing functions of a business without  
35 causing conflicts within these functions. One question was, "what do you consider to be the

1 most challenging aspect about being a manager in business today?” which elicited responses  
2 such as:

3 *“... If I mean, if I lost interest, I believe that would be challenge losing*  
4 *my interest. So, I have to keep working very hard and then doing lots*  
5 *of money and success. So that might keep me focused. If I lost money,*  
6 *you've got to focus If you did not, you lost interest. You just think you*  
7 *are just wasting your time or just. That's dangerous. Otherwise,*  
8 *forced, and then, I don't believe they can take you down. Because I*  
9 *know... ”.*

10  
11 *“...hmm...without assumption it is staff...I have to keep control on*  
12 *them at all the times , They are very important part of my business but*  
13 *I have to ensure that they work as hard as I do ... so finding the right*  
14 *people it is very difficult ... ”.*

15  
16 Owners of small businesses confront many challenges in managing their business. These  
17 involve understanding financial responsibilities, creating products which suit customers, and  
18 recruiting employees with the appropriate skills set. However, the biggest challenge that they  
19 face is business regulations and taxes. Therefore, they need to understand the content of  
20 regulation for the industry, and how it impacts their businesses. They need to develop the  
21 skills necessary to deal with it. In our sample, two companies also experienced difficulty in  
22 finding appropriate staff who understood and supported their business objectives. For small  
23 businesses, it is personalities and skills which matter. To be successful in meeting adversity,  
24 the owners of SMEs should possess a conceptual knowledge of all business functions by  
25 designing strategies for future growth and development.

26  
27 Strategies for future growth and development involve developing a structural model, which  
28 contains all the required tools. This model prepares a business to grow and develop. Strategy  
29 contains elements such as product, timing, methods, economic and business case and  
30 differentiation. Strategic planning is the process of guidance for development. Strategy must  
31 be consistent, measurable and flexible. Strategic objectives are the key for future growth and  
32 development for SMEs. However, in order to achieve success the owners must be committed  
33 to the business, value employees, promote the business, have plans to expand and be skilled  
34 in all the aspects of the organization. This study was concerned with what the business owner  
35 can do which will make a difference to the future growth and development of the business.  
36 This can be explained by the comment of managers:

37 *“... Lisa is my employee. But I consider she is my colleague. And you*  
38 *should be forgetting whose boss. We must concentrate there, and as*

1 *long as the business is getting bigger and bigger. She needs to be into*  
2 *it and then, looking forward to do it for a long time. If she just stood*  
3 *there, I say, no, she's wasting her time. You know, she's getting some*  
4 *profit. But whenever she's ready, we can open another coffee shop for*  
5 *her. For example, we moving across the road which is three times*  
6 *bigger when this is settled down. Yeah, after Christmas, we will just*  
7 *operate it from there".*

8  
9 *"...It is nothing more than hard work... you have to stay focus and be*  
10 *passionate about what you do ...otherwise you will not be able to*  
11 *survive ... I am very happy with my current size of the business and I*  
12 *am not planning to expand it ...but I have only one wish ... I would*  
13 *like to keep this in my family and I am hoping that my daughter will be*  
14 *able to take over the business".*  
15

16 There are different strategies which can lead to the growth and development of a business.  
17 The owners have strategies to expand the business and ensure long term success. They  
18 understand and value their employees, as they believe they are key for future growth and  
19 development. After all, they possess great understanding of all business functions but they are  
20 not focused on expanding the business. The majority of interviewees were satisfied with the  
21 current size of the business. Their strategy was based on hard work in order to keep their  
22 customers happy so they will be repeat customers. They focus on their products and services  
23 to provide the highest standard at all times. The majority have a lot of experience in their  
24 industry which helps them to build effective strategy. Three owners are planning to move  
25 their businesses nearby to premises which are three times bigger than the present ones.  
26

## 27 *Antecedents of digital technology*

28 This study supports the assertion that information quality and service convenience are linked  
29 to digital technology. In relation to information quality, interviewees observe that information  
30 quality including integrated promotion information, integrated product and pricing  
31 information and integrated information transaction are linked to digital technology. In  
32 addition, the data analysis suggest that service convenience, including integrated information  
33 access, integrated order fulfillment, and integrated customer service are linked to digital  
34 technology. A director of one of the SME accountancy firms explained that:

35 *"...digital technology is a key enabler in the way our firm interacts*  
36 *with clients and provides with competitive advantage. Technology*  
37 *aspects have been embedded in the work environment in order to*  
38 *enhance the internal quality and methodology. For example, the firm*  
39 *uses an integrated global ERP system to manage and support a*  
40 *paperless working environment, with analytical capability which*

1           *provides visualization of big data, using the volume of financial*  
2           *information gathered during projects. All this integrates seamlessly,*  
3           *to enhance the overall quality of service provided to our clients”.*  
4

5 Small and medium-sized enterprises (SMEs) in the UK, can be defined in terms of  
6 employment, asset value and sales (Rostamkalaei and Freel, 2016). However, Jasra et al.’s  
7 (2011) definition of SMEs is made more specific by determining what they represent in terms  
8 of numbers of employees, and their capability.

#### 9 10 *Digital technology and marketing capability*

11 In relation to digital technology, they discovered that the use of digital technology was  
12 positively related to tangible/intangible assets and their results show that the frequent  
13 engagement of tangible/intangible assets is positively linked to customer-relationship  
14 capabilities. Furthermore, the relationship between tangible/intangible assets and corporate  
15 brand identity capabilities shows that frequent engagement of tangible/intangible assets is  
16 positively linked to corporate brand identity capabilities which support the hypotheses. In  
17 addition, frequent engagement of tangible/intangible assets is positively linked to customer-  
18 relationship capabilities as well as to social media/communication capabilities. The results  
19 indicate a strong relationship between marketing capabilities and competence from the  
20 employees' viewpoint of an organization's core competence. The data demonstrate that the  
21 employee’s view of information quality, service convenience, digital technology and  
22 tangible/ intangible assets and marketing capabilities facilitates the relationship between  
23 competence and organizational core competence. Accordingly, the relationship between the  
24 employee’s view of information quality and digital technology; service convenience and  
25 digital technology; digital technology and tangible/intangible assets; tangible/intangible  
26 assets and marketing capabilities were related.

27  
28 The outcomes suggest that all dynamics including information quality, service convenience,  
29 digital technology, tangible/intangible assets, marketing capabilities perform a significant  
30 role as facilitator between the competence and core competence. This illustrates the concept  
31 of employees-based core competence, defined as as organizational routines manifested in  
32 business activities and processes that bring assets together and enable them to be deployed  
33 advantageously (Hamel and Parahalad, 1990; Drejer, 2000).

34  
35 Irrespective of the nature of the business they are in, or the competition they face,

1 management should consistently observe the efficiency and appropriateness of the  
2 competence in respect to the organizational core competence. A global firms' core  
3 competence was conceptualized as consisting of both internal and competitive dimensions.  
4 The competences perceived by the employees are encouragingly linked to organizational core  
5 competences.

6  
7 Constructed upon the examination of the gap acknowledged by academics and practitioners  
8 (Hafeez et al., 2002) this study has conducted a systematic investigation of the factors which  
9 influence organizational core competence. The results show that core competence in relation  
10 to the research model comprises six factors: information quality, service convenience, digital  
11 technology, tangible/intangible assets, marketing capabilities and competence. Information  
12 quality is abstracted in relation to its dynamics involving integrated promotion information,  
13 integrated product and pricing information and integrated information transaction which  
14 deliver stability in branding to support customers and distinguish the firm from its  
15 competitors (Oh and Teo, 2010). Service convenience including its components “processes of  
16 integrated information access, integrated order fulfilment, and integrated customer service”  
17 (Oh and Teo, 2010 p. 42) compose consumer perceptions of the services offered by the  
18 organization and its benefits.

19  
20 Digital technology adopted by the organization enhances the ability to respond positively to  
21 customer needs and, at the same time, improves customer-side operations (Walsh 2007).  
22 Digital technology focuses on the consumers and businesses and, at the same time, helps  
23 drive sales and increases efficiencies by reducing costs. Assets are resource endowments that  
24 a firm has accrued over time, and that can be deployed for forming a competitive advantage  
25 (Amit and Schoemaker, 1993; Day, 1994; Fahy and Smithee, 1999; Grant, 1991). Marketing  
26 capabilities successfully deployed build greater customer value and enhance the ability to  
27 deliver a competitive advantage (Fahy and Smithee, 1999; Kay, 1993; Williams, 1992).

28  
29 Digital technology enhances learning and it is one of the most critical elements of design  
30 innovation. Innovation design focuses on developing new products and market segments, it  
31 plays an important role in the marketing department where constant interaction and exchange  
32 of information with customers is fed back to the design department. In the product design  
33 department management capability strongly focuses on developing new products and market

segments, by monitoring market trends and seeking market opportunities (Foroudi et al., 2016).

According to scholars (Gupta and Wilemon, 1990; Foroudi et al., 2016), the effective relationships amongst design activities and marketing can generate product innovation. In addition, innovation is of crucial importance for fast growing SMEs (Coad and Rao, 2008). SMEs that carry out product innovations will achieve greater growth rates than those that do not (Gupta et al., 2016). Firms with better internal management capability will be able to innovate, relative to firms with lesser internal capability.

#### *Marketing capability, company's growth, and competencies*

This study also reveals certain characteristics of the core competence by showing how the organizational core competence is developed, measured and managed. Strategies to construct organizational core competence are reviewed in relation to both company tangible/intangible assets and marketing capabilities. The view of organizational core competence of employees-based outlooks is reviewed by demonstrating the effects of a digital technology on marketing capabilities and tangible/intangible assets with the aim of building organizational core competence.

The results show mediation and direct effect between the firm's tangible/ intangible assets and its marketing capabilities. An optimistic approach toward market-sensing, corporate brand identity, customer relationship and social media/ communication capabilities are evidence of earlier proficiencies and notes from the accountancy firm about organizational core competence facilitate the relationship between tangible/ intangible assets and marketing capabilities. The findings indicate that the four dynamics (market-sensing, corporate brand identity, customer relationship and social media / communication capabilities) can be driven by the tangible/ intangible assets. One consultancy, accountancy based firm that underscores the significance of marketing capabilities adapted by tangible/ intangible assets in developing the competence which leads to core competence stated that:

*"...with the rapid advancement in technology, the firm's focus on promoting its services has significantly changed. In addition, to using the tradition marketing methods such as personal brochures, articles, we now use a variety of online methods to promote thought leadership, new innovative ideas and concepts. For example, the social media in the form of tweets, blogging is used frequently to promote the recent trends in the market. The firm is using apps to*

1           *target specific customers, engaging and collating valuable*  
2           *information, which provides valuable information in developing our*  
3           *future marketing capabilities”.*  
4

5   In addition, one participant added:

6           *“The of customer relationship management (CRM) technology helps*  
7           *us gather and share all data relating to customer services, product,*  
8           *offerings and pricing. The global database is accessed by all*  
9           *professionals across the network firm, this provides detailed analysis*  
10           *and information on customer behaviors, key relationships and sale*  
11           *management process”.*  
12

13   This quotation demonstrates the effect on employees' outlooks of core competence and its  
14   dynamic marketing capabilities and company tangible/intangible assets which mark an  
15   enormous impact on organizational core competence. Furthermore, Hunt and Morgan (1995)  
16   emphasize that “a comparative advantage in assets can transform into a competitive  
17   advantage in the marketplace and superior financial performance...” (p.7). These statements  
18   indicate that throughout the development and leveraging of firm assets the firm determines a  
19   set of capabilities including marketing capabilities that allow the organization to accomplish  
20   greater levels of firm performance. An effective marketing capability positively influences  
21   firm performance consistently across functional environments (Hunt and Morgan, 1995). It is  
22   generally accepted that firms utilise their marketing capabilities through their assets to  
23   communicate on behalf of the firm and boost the firm’s performance and competence.  
24

25   Design innovation can be defined as an implementation of new ideas or behavior within an  
26   organization (Helfat et al., 2007). Design innovation in association with management  
27   capabilities enables SMEs to grow. Management capabilities highlight the importance of the  
28   learning process that are an essential part of innovation (Pittaway and Rose, 2006). Specific  
29   managerial activities or skills optimize the design process. The growth of SMEs has attracted  
30   notable attention from organizations and entrepreneurship research. This attention is essential  
31   in entrepreneurship studies as well as managers and policy makers. Growth is vital to small  
32   and medium-sized enterprises (SMEs). When deciding their growth strategy, SMEs face big  
33   decisions on how to expand and improve their product markets through innovation.  
34

35   Interviewees defined corporate brand identity as ‘the set of meanings by which a company  
36   allows itself to be known and through which it allows people to describe, remember and  
37   relate to it’ which is consistent with the views by previous studies (Topalian, 1984; Olins,

1989; Markwick and Fill, 1997). Corporate brand identity encompasses several qualities of a company such as business strategy, corporate culture, behavior and corporate design, all of which cooperate with each other and result in differentiating one firm from another. Corporate brand identity allows assets to be more equitably valued and facilitates the company's access to capital markets (Beatty and Ritter, 1986).

In addition, customer-relationship capabilities were highlighted by participants as a significant element in order to attain superior performance. Bowersox et al. (1999) defined customer-relationship capability as “the competency of building lasting distinctiveness with customers of choice” (p.42) which includes “identifying the long-term requirements, expectations, and preferences of current and/or potential customers and markets, and focusing on creating customer value” (p.31). Four capabilities must occur in order to accomplish customer relationship capabilities: segmental focus, relevancy, responsiveness, and flexibility (Bowersox et al., 1999).

Marketing capabilities should influence competence. Equally, the greater number of respondents in this sample suggested that marketing capabilities deliver enormous effect on a company's competence which leads to organizational core competence. In line with Hunt and Morgan (1995), marketing capabilities are a resultant from the assets a firm possesses and are a dominant driver of firm performance and competence. Consequently, marketing capabilities assist as a facilitator between tangible/intangible assets and firm performance and assets will also influence directly firm performance or competence. Therefore, marketing capabilities fully facilitate the impact of assets on firm performance and competence. The entire sample agreed that information quality and service convenience influenced digital technology, that digital technology is positively linked to tangible/ intangible assets and that marketing capabilities in association with the firm's assets influenced competence. This result suggests that effectively utilised digital technology influences the marketing capabilities which, in turn, influence competence. Likewise, digital technology has an enormous impact on marketing capabilities which lead to core competence. This assessment is clarified by the following statement from a Director of a Consultancy and Accountancy Firm:

*“Every aspect of a marketing campaign within the firm is used to collate valuable information about our customer's issues, challenges etc. These campaign act as useful tools to inform the leadership of the gaps in the core competency within the firm and areas which require more investment. For example, over the last 10 years the firm has*



1           *significantly invested in developing the cyber capabilities, this is as a*  
2           *direct result of market trends, challenges/issues faced by our clients,*  
3           *the need for which was established through various marketing*  
4           *campaign, research etc.”*  
5  
6

## 7   **Conclusion**

8   The aim of this research is to address the gaps in previous studies regarding (1) the  
9   relationships between information quality, service convenience, digital technology, tangible/  
10   intangible assets, marketing capability, competence and core competences; and (2) the  
11   relationships between other theoretically acknowledged variables. The results demonstrated  
12   a strong relationship between the variables. Digital technology has an enormous impact on  
13   marketing capabilities which leads to the development of core competences in UK firms.  
14   Moreover, it suggests further avenues of theoretical and managerial research to boost the  
15   understanding and supervision of core competences in UK firms.

16  
17   The advantages of innovation in terms of growth have been recognised for SMEs.  
18   Information quality combined with service convenience is related to improved performance.  
19   Digital technology is an effective way to transform information in order to innovate. Greater  
20   management capabilities and technological developments offer opportunities to SMEs in  
21   order to achieve growth and innovation which can be delivered through greater resources and  
22   help SMEs to attract and retain more customers (Gupta et al., 2016).

23  
24   Innovation policies in a developed country, such as the UK, promote the adoption of  
25   technologies and good practices by small and medium-sized enterprises (SMEs). Although  
26   policy makers should try to increase innovation performance in SMEs by providing relevant  
27   training in the use of technology and better access to higher education, which enables  
28   entrepreneurs to gain knowledge of design innovation. Such informed policies could lead to  
29   the growth of SMEs given that this kind of firm represents a big part of the economy.

30   Based on the review of the related literature and qualitative analysis, the research framework  
31   is presented in Figure 1.

32  
33                   <<<Figure 1>>>  
34

## *Research implications*

The current commentary builds on the growing body of research on the subject of core competence. With deeper engagement in competence issues, firms exploit digital technology more frequently by utilising company assets and enhancing the ability to attain core competence. The authors suggest a combined conceptualization that combines digital technology and marketing capability at the center of the firm's strategy to generate competence and core competence.

The greatest contribution of the present research is to increase comprehension by investigating employees' valuations of the impact of digital technology and marketing capabilities on firms' financial competence. Numerous academics indicate that digital technology, tangible/ intangible assets and marketing capabilities are associated with core competence; however they have not investigated this correlation. Nevertheless, the present study offers a corroborated framework which shows the relationships among the dynamics of a core competence. It discusses the gaps in current knowledge and answers earlier demands for research from the viewpoint of marketers (Foroudi et al., 2014). The creation of a unique model for core competence is a fundamental requirement of the current investigation. The major task is, in this view, the conduct of (multi-disciplinary) studies into interactions, which can be transformed into outcomes with practical applicability (Palmer and Bejou, 2006). This study aims to clarify, with a more holistic method, the relationships between information quality, service convenience, digital technology, tangible/intangible assets, marketing capabilities, competence and core competence in the judgement of employees within the financial sector.

The results of this study deliver assistance for strategic 'decision-makers' who demand to comprehend the broad connections between a core competence and features of its components (i.e., information quality, service convenience, digital technology, tangible/intangible assets, marketing capabilities, competence) from the employee's perspective, and its effect on an organizational competence.

Additional potential contributions can be discerned since this investigation related to the managers' and decision-makers' approaches (Sedera and Gable, 2010). As stated by Candra (2016) firms require a lifecycle-wide knowledge for devising strategy. The innovative uses made of firms' tangible/intangible assets have naturally sought to increase the exploration of

digital technology and exploitation of marketing capabilities (Levinthal and March, 1993). The present study establishes the significance of all the dynamics of competence with each component delivering a distinct and significant contribution to organizational core competence. It is hoped that this research will aid managers to successfully and efficiently develop their organizational related competence, thus improving levels of competitive advantage and firm success (Sedera and Gable, 2010).

We propose that, to attain a competitive advantage, firms must possess a full understanding of what establishes a core competence, which is influenced by three central features, specifically: digital technology, tangible/intangible assets and marketing capabilities. These findings acknowledge the relative weighting of the dynamic hypotheses that influence core competence. Consequently, the present study has substantial implications for managers and strategic decision-makers when forming or adjusting core competence.

#### *Limitations and future research directions*

The present analysis amounts to a preliminary analysis of the concept of core competence, addressed to the problems of creating competitive advantage and firms' success. Nonetheless, these outcomes must be interpreted in the light of this study's limitations associated with the method of sampling/analysis used, as well as its measurement (Foroudi et al., 2014). The present study was undertaken in a particular background and location while in another location and another industry segment, the outcomes could have been different. Though, the authors have based their findings on qualitative research and earlier studies of different samples, the individual characteristics of core competence that we have identified might prove to be different. Hence, it is suggested that a further study is conducted to confirm these findings in different sectors so as to assess the generalizability of the result.

Additional limitations of the present study includes the number and type of employees and using a larger sample would improve the reliability of the results (Churchill, 1999). Future studies must repeat this investigation with more sectors and a larger number of employees. Furthermore, in relation to the exploration strategy, the qualitative investigation was aimed at managers as well as academics, though managers' and academic' outlooks are not identical.

This study examined the relationships between information quality, service convenience, digital technology, tangible/intangible assets, marketing capabilities, competence and core

1 competence, as observed by employees. Possibly a future analysis might generate dissimilar  
2 outcomes from the similar research scales and hypotheses. Though this research engaged  
3 mixed methods, a wider investigation could expand our knowledge of the implications of the  
4 competence.

5

1

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- 6



**Table 1: In-depth interviews with managers**

Interview date	Interview position	Interview approx. length
12.10.2015	Top Executive	54 min
15.10.2015		38 min
22.01.2016		96 min
30.08.2016		26 min
01.09.2016		64 min
08.08.2016		32 min
15.03.2016		48 min
12.10.2015	Communication and Design Manager	121 min
08.08.2016		54 min
22.08.2016		75 min
15.03.2016	Managing Director	45 min
14.12.2015		35 min
15.10.2015	Design Strategy Manager	75 min
15.10.2015	Marketing Manager	26 min
02.07.2016		47 min
26.05.2016	Risk Assurance Director	55 min
27.05.2016	Senior Business Advisor	40 min
31.05.2016	Senior Manager	30 min
08.08.2016		64 min
22.08.2016		24 min
30.08.2016		65 min
Topics discussed:		
-The understanding of core competence		
-The factors that influence core competence		
-Their experience of what they understand the tangible/ intangible assets and its influence on core competence		
-Discussion of digital technology and whether it influences on competence		
-Discussion of marketing capability and the main perceived impacts on core competence		

Source: The Researcher

Figure 1: Framework of digital technology, tangible/intangible assets, marketing capability, and competencies

