

Sustainability Management, Technological Innovation and Corporate Social Responsibility for Social Media Small to Medium-Sized Enterprises (SMEs)

George Papageorgiou, Stelios Marneros and Andreas Efstathiades

Department of Management and Marketing, SYSTEMA Research Center, School of Business

Administration, European University Cyprus, Cyprus

S.Marneros@euc.ac.cy

g.papageorgiou@euc.ac.cy

a.efstathiades@euc.ac.cy

Abstract: The aim of this paper is to investigate the impact of the social and technological environment on business performance. Focus is placed on SMEs and their effort to achieve sustainable competitive advantage and thereby sustainable business performance. For this purpose, a survey study was carried out, where primary data was collected from a representative sample of SMEs operating in the Social Media industry of Greece. Questionnaires were distributed to managers and entrepreneurs of the Social Media Industry. These managers/entrepreneurs were selected using a simple random sampling methodology. The findings of the study revealed that social and technological developments have a major role in developing a sustainable competitive advantage. Strategy alignment was also found to be key in tackling the problems and in undertaking the opportunities that arise from the current social and technological environment, thereby reaching sustainable business performance. The findings of the study are especially useful to entrepreneurs and professionals in the industry in formulating effective strategies towards aligning their business with current advancements in emerging digital technologies. Such an alignment would bring numerous competitive advantages and in turn sustainable business performance.

Keywords: Sustainability, Social Responsibility, Entrepreneurship, Social Media, Technological Innovation, Digital Economy; Corporate Social Responsibility

1. Introduction

In the current highly competitive environment, sustainable performance is vital for success (Goel, Rana, and Rastogi, 2010). It is important to note that Sustainable performance has been a key goal for an increasing number of businesses in recent decades (Taylor, 2013). As a result, during the last decade there has been a growing interest for using strategic decision-making frameworks focussing on sustainability (Jiang et al., 2018).

An organization's sustainability performance is defined as a balance between financial and environmental objectives in delivering its core business activities. It encompasses the performance of a company in all dimensions and in all drivers of corporate sustainability (Sebhatu, S, 2009). Sustainable performance plays a key role in the sustainability management of Small and Medium Enterprises (SMEs) (Moore and Manring, 2009).

In the current tumultuous digital economy landscape, numerous companies and even entire industries are facing daunting obstacles that make sustainable performance almost an impossible goal. Such an industry that has received waves of disruption and restructuring is the Social Media industry. Note that the Social Media sector plays an important role for marketing and business performance and thereby increasing the Gross Domestic Product (GDP) (Williams and Schaefer, 2013). In the case of the Greece, this sector plays a highly influential role in the country's economic development, but at the same time the Greek Social Media sector faces various technological and social challenges. The main challenges are related to the adoption of new technologies and their successful implementation in order to safeguard a competitive advantage. In conjunction with technological changes, social developments impose new roles on businesses in the sector focussing on corporate social responsibility, which require the cultivation of a new set of values and beliefs.

The existence of distrust and the non-constructive beliefs of workers create resistance to change. This resistance could be attributed to the complexity of the new technology and employee fear of using the technology against their interests (Beck, Demirguc-Kunt and Levine, 2005). Such negative values and beliefs adversely affect new strategic initiatives and the development of competitive advantage, which ultimately reduces sustainable business performance. In addition, social responsibility is a necessary component in order to foster sustainable performance (Abdi Mussa et al., 2013). It has been shown that SMEs must be engaged in corporate social responsibility effort in order to handle the current social challenges and thus secure a sustainable competitive advantage.

The aim of this paper is to investigate the impact of social and technological environment on business performance in today's digital economy. Specifically, the role of technological advancements in conjunction with social changes to achieve competitive advantage and thus sustainable business performance is investigated. Explicitly the objectives of the study are as follows:

1. To examine the role of Information Technology in process of achieving a sustainable competitive advantage.
2. To identify the role of Values and Beliefs as moderators in the development of the right climate for achieving sustainable competitive advantage.
3. To identify the relationship between the development of corporate social responsibility practices and the achievement of sustainable competitive advantage to increase business performance.

2. Literature Review

This section presents a review of resources that small and medium-sized enterprises (SMEs) are leveraging to address their social and technological challenges. These resources include, corporate social responsibility (CSR), employee values and beliefs, IT managerial resources, IT implementation and strategic alignment all of which are contributing to an increase in the sustainable competitive advantage of SMEs.

2.1 Social responsibility

Despite the fact that there is no universal definition for social responsibility, numerous private organisations refer to it as a means of managing the environmental, social, and financial implications of their operations in a constantly evolving business environment (Newell and Muro 2006).

The social responsibility of companies has been studied by various researchers (Matten and Moon 2008, Brunsael 2009) and many of these studies overlook the relationship between the achievement of a competitive advantage and the sustainability of business performance. However, the social responsibility of organizations has been found to have an impact on sustainable competitive advantage (Ceglinski and Wisniewska 2017). It seems that achieving higher levels of social responsibility improves a company's competitive advantage and losing control of social responsibility reduces the competitive advantage.

In the current era of globalisation, businesses and organizations have been able to move away from the restrictions imposed by their home countries. According to Newell and Muro (2006) the prevalence of global organizations who operate beyond the restrictions of their home country has led to an increase in the desire for greater accountability and straightforward global operations. Due to globalisation and the challenge of limited resources, corporate social responsibility (CSR) has been at the top of the agenda among business networks and Government. Many advocates for CSR in the Western world claim that CSR is not merely corporate philanthropy but rather a fundamental logic for large, medium and small enterprises to achieve a comparative advantage and sustainably to perform among different companies. Various studies have shown that corporate social responsibility plays an important role in achieving sustainable competitive advantage (Hill and Jones 2014; Campbell 2007; Mohr et al., 2001). In line with the concept of social responsibility, it is equally important to have the proper values and beliefs to achieve sustainable competitive advantage.

2.2 Values and beliefs

Better values and beliefs have the potential to solve various IT issues. An organization's attitude towards adopting new technology presents a significant challenge (Balcerzak 2016). These values and beliefs are part of the culture of the organization. Tuan and Venkatesh (2010) explored how the culture of the organization is linked to technological adoption, in which attitude plays an important role and is closely linked to achieving a competitive edge.

2.3 IT managerial resources and IT implementation

Small and medium-sized enterprises (SMEs) are confronted with novel technological issues, such as IT managerial resources and the success of IT implementation. It is essential to have well-equipped IT management resources in order to successfully implement new technology, a task that is a challenge for most companies. This pre-requisite covers the relationship between business and IT managers when it comes to seller identification, contract negotiation, as well as the structure and utilization of IT projects.

According to Freeman and Sharp (1991), IT success is mostly a function of a good relationship between business managers and IT, which is the main driver of good seller relationships. According to Chan et al., (2006), IT partners must be trusted and advised in the fundamental leadership process. Prior to this, Boynton (1994) conducted a survey of administrative IT learning about the business' tasks and systems and found that knowledge of high-level administrative IT information strongly affects a higher use of IT resources.

IT managerial staff who are equipped with the necessary IT skills are more likely to be able to implement technology effectively, which can lead to an increase in the competitive advantage. Studies have demonstrated that IT management resources, such as IT skills, can have a positive impact on competitive advantage (Boynton 1994). Human resources are a fundamental component of IT managerial resources and are essential in achieving a competitive edge (Collins 2003). IT implementation is also of paramount importance, as the correct implementation of new technology has a greater impact than the mere introduction of it.

2.4 Sustainable competitive advantage

According to Barney (1997), sustainable competitive advantage is determined by the resources of an organization, both internally and externally. These intangible strategic resources are often unique, valuable, and irreplaceable, they drive both the creation and maintenance of competitive advantage. By leveraging these unique resources, an organization becomes proficient enough to produce as well as deliver innovative and high-quality products and services to make a difference (Russo and Fouts 1997). In order to achieve the desired strategic advantage, firms can develop competencies by examining factors such as human capabilities, internal organizational strategy, regulations, and appropriate information sources (Russo and Fouts 1997). In the context of the study, IT Implementation, IT Management Resources, Social Responsibility, Values and Beliefs are the key competencies for a competitive edge, which is essential for sustainable business performance.

2.5 Strategic alignment

Strategic alignment is a process of aligning an organization's structure and resources to its strategy and business environment, in response to its current and emerging societal and technological challenges. It involves the matching of skills to achieve specific objectives related to the organization's strategic plan. This process encompasses strategy, personnel, remuneration, and structure, and is essential for attaining a sustainable competitive edge.

Aligning the business strategy with its strategic decisions is an obvious area of focus that remains at the forefront of a high-priority business (Johnson and Lederer 2010). The strategic alignment between IT and business strategy is seen as a critical issue, particularly when IT becomes an integral part of the business, and is utilized to leverage unique business capabilities, consolidate organizations, reconstruct businesses, and enable global competitiveness (Peppard and Ward 2004).

Businesses are facing an ever-increasing competition at both local and global levels. Therefore, understanding the nature of creating a competitive advantage becomes a fundamental requirement for any organization. Several researchers (Chan and Reich 2007) have shown that the organizations can be competitive only if there is synergy between business innovation and data innovation. Therefore, aligning strategies in this direction is the key to gaining a competitive advantage.

Small and medium-sized enterprises (SMEs) face a range of social and technological challenges, including those related to corporate social responsibility (CSR), values and beliefs, IT managerial resources, and IT implementation success. Properly aligning strategies can help to address these challenges, allowing for the allocation of skilled personnel to address IT management issues and the challenge of IT implementation success. Additionally, social issues can be addressed through the alignment of appropriate strategies, which can lead to an increase in the company's sustainable competitive advantage. Numerous studies have demonstrated a strong correlation between strategic alignment and achievement of a sustainable competitive advantage (Powel 1992; Kearns and Ledener 2003; Brown and Blackmon 2005).

2.6 Synopsis

It is concluded that technological innovation and sustainable business may converge and it is hard to draw a boundary line between them. Innovation is perceived as the commercialization of an invention or idea. There is now a focus and pressure upon technology and innovation to achieve sustainable economic and socio-economic development. It is reported that research and experimental development (R&D), when properly harnessed, may

lead to technological innovation in the form of new products and processes, which contribute to growth, competitiveness and creation of jobs, producing further social benefits. On the other hand, is noted that the private sector, left to its own devices, might invest in areas that may not always be fully aligned and socially desirable and thus the business is not able to be fully benefited (Delanghe and Muldur, 2014).

To avoid such market failures, an appropriate business model could guide the firm in the right direction. A business model would act as a "market engine", a connective device between different stakeholders such as companies, funders, research institutes, etc., which are factors that shape innovation networks. A business model describes the principles by which an organization creates, distributes and captures value (Sempels and Hoffman, 2013). A business model is the means by which the company's strategy is established (Sempels and Hoffman, 2013). An answer to dilemmas about the relationship between business models and technological innovation, can be found in a brief statement by Chesbrough (2017) "Innovate the business model, not only technology". This is further elaborated as follows: "a better business model it often outperforms a better technology" (Jaksic, 2018).

In order for a business to be successful, it has to have certain advantages over its competitors. The main objective of any strategy is achieving competitive advantage as well as performance (Ulewicz and Blaskova, 2018). For the achievement of this goal, specific elements are required, such as social responsibility, appropriate positive values and attitudes/beliefs, IT resource management, successful IT implementation and strategy alignment to gain a competitive edge advantage in a competitive environment.

According to Porter (1996), to gain sustainable competitive advantage, social responsibility, values and beliefs, IT managerial resources, IT implementation success and strategy alignment are needed.

The social responsibility of companies has been studied by various researchers (Carroll 1991; Campbell 2008; Mohr et al., 2001). However, these studies overlook the relationship between the achievement of a competitive advantage and the sustainability of business performance. The social responsibility of organizations has been found to have an impact on sustainable competitive advantage (Brunsael 2009; Ceglinski and Wisniewska 2017). Achieving higher levels of social responsibility improves a company's competitive advantage. Losing control of social responsibility reduces the competitive advantage.

Values and beliefs play an essential role in achieving long-term competitive advantage. These are the challenges that SMEs face. Values and beliefs of the people in the organization have a huge impact on many metrics of IT in companies. Values and beliefs can have a significant impact on one's career, including conduct and practices. These beliefs are shaped throughout one's career depending on the experience gained in the field of Information Technology. Therefore, IT issues are linked to values and beliefs and fosters competitive edge (Tanriverdi, & Venkatraman 2005).

Small and medium-sized enterprises (SMEs) are confronted with novel technological issues, such as IT managerial resources and the success of IT implementation. It is essential to have well-equipped IT management resources in order to successfully implement new technology, a task that is a challenge for most companies. This pre-requisite covers the relationship between business and IT managers when it comes to seller identification, contract negotiation and the executives, as well as the structure and utilization of IT projects.

Strategic alignment refers to the process of aligning your organization's structure and resources with your strategy and specific business environment, in line with social and emerging technological challenges. Strategic alignment is the process of matching your skills to achieve specific goals regarding your organization's strategic plan. It's a multi-faceted process that includes your strategy, your people, your rewards and your structure. It's a process that aligns your organization's structure with your business model, which has a significant impact on achieving your sustainable competitive advantage (Miron et al., 2011).

As mentioned above, an increase in sustainable competitive advantage leads directly to an improvement in sustainable business performance. Studies have shown that companies should prioritize competitive advantage in an environment with a satisfactory level of sustainable business performance. Several studies have shown a strong correlation between sustainable competitive advantage and sustainable business performance (Davis et al., 2000; Li et al., 2006; Zikmund et al., 2009.)

The interrelationships of such elements are investigated in the current study by means of the survey method and the use of the Partial Least Squares Structural Equation Modelling technique.

3. Methodology

The present study implements a quantitative research design to measure the structural relationship between the various proposed latent variables related to performance, technological development, sustainability and social responsibility. For this purpose, the Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed using the software package Smart PLS 3.0 where thirteen hypotheses were tested based on Resource Based View (RBV) theory (Hair et al., 2019). A cross-sectional research design was applied to the study in which the data were collected once. This process was followed by applying statistical analysis methods, while inferences were drawn about the SMEs in the Social Media industry. A brief cover letter detailing the study was also attached to the email. Further, assurance was given that the responses would remain confidential and would be used only for research purposes. The questionnaire was distributed via email to a representative sample of randomly selected Social Media SMEs and answered by the management staff.

A total of 100 questionnaires were distributed to the managers of Greek Social Media SMEs. Of these questionnaires 44 were returned and 8 were incomplete. Thus, 8 questionnaires were excluded from the study and 36 were used to analyse the data collected. The overall response rate was 36.4% which is considered adequate considering the low number of Social Media SME's operating in the country. According to (Hair et al., 2007) a response rate of 30% is good enough in the case of an email survey.

4. Results – Analysis via Partial Least Squares Structural Equation Modelling PLS-SEM

As indicated by Chin and Newsted (1999) PLS is suitable when (a) the theoretical model is new or not well framed (b) the model is generally complex with numerous variables as well as structural paths. It is also useful when the main goal of the research project is to predict relationships. PLS path modelling was used in the present study using Smart PLS 3.0 (Wold, 1985).

PLS is similar to the conventional regression procedure, but it offers an advantage for the simultaneous evaluation of the connection between variables (structural model) and the relationship between constructs (the measurement model) (Ringle, Wende and Will, 2010). Considering the above, this study used PLS-SEM to analyse the collected data. PLS-SEM is based on different steps suggested by Henseler, Ringle, and Sinkovics (2009).

Table 1: Direct Effects Among the Main Latent Variables

Relationship	β	St Dev	t-Statistics	p-Values	f ²
ITI→SA	0.827	0.052	15.704	0.000	0.950
ITI→SCA	0.186	0.090	2.055	0.039	0.024
ITMR→SA	0.155	0.037	4.136	0.000	0.023
ITMR→SCA	0.081	0.081	4.696	0.000	0.003
SA→SCA	0.637	0.098	6.41	0.000	0.269
SCA→SBP	0.717	0.043	16.154	0.000	0.851
SR→SA	0.184	0.046	3.930	0.000	0.038
SR→SCA	0.022	0.010	2.15	0.038	0.002
VB→SA	0.178	0.051	3.471	0.002	0.033
VB→SCA	0.060	0.024	2.54	0.011	0.001

Notes: (ITI) IT Implementation Success, (SR) denotes Social Responsibility, (VB) Values and Beliefs, (ITMR) IT Management Resources, (SA) Strategic Alignment, (SCA) Sustainable Competitive Advantage, (SBP) Sustainable Business Performance

The direct relationships between the main variables are shown in Table 1.

The relationship between social responsibility and sustainable competitive advantage was found significant and positive with a t value of 2.15 and a β value of 0.022. The relationship between values and beliefs with sustainable competitive advantage was also found to be significant and positive with a t-value of 2.54 and a β -value 0.060. In addition, IT management resources have a positive effect on sustainable competitive advantage with a t-value of 4.136 and a β -value of 0.155.

The results reveal that the relationship between the extend of IT implementation and the achievement of a sustainable competitive advantage is high. The t-value of 2.055 and a β value of 0.186 indicates a high relationship. SMEs should invest in technological advancements and especially in IT technology in an effort to achieve competitive priorities and safeguard market success.

The relationship between the existence of IT management resources and the achievement of strategic alignment is found to be high. The t-value of 4.136 and a β -value of 0.081 indicates this high relationship

In addition, the direct impact of social responsibility, of values and beliefs, IT resource management and its application IT have a significant positive effect on strategy alignment with a t-value of 3.930 and β value 0.184, t value 3.471 and β value 0.178, t value 4.136 and β value 0.155, t value 15.704 and β value 0.827, respectively.

Additionally, findings reveal that strategic alignment has a positive role in achieving sustainable competitive advantage with t value 6.41 and β value 0.637. Moreover, the same results are found in the case of viable competitive advantage and sustainable business performance with a t-value of 16.154 and β value 0.717. Therefore, the results have supported all direct hypotheses, showing a strong possible cause and effect relationship between Information Technology and performance, as well as social responsibility and sustainable performance.

Table 2 below indicates the indirect effect of performance variable on the achievement of a sustainable competitive advantage.

Table 2: Indirect Effects to Sustainable Competitive Advantage

Relationship	Sample (O)	Sample (M)	Standard Deviation	t-Statistics	p-Values
ITI→SA→SCA	0.527	0.514	0.088	5.953	0
ITMR→SA→SCA	0.11	0.10	0.002	3.387	0.002
SR→SA→SCA	0.117	0.118	0.04	2.30	0.013
VB→SA→SCA	0.113	0.115	0.115	1.641	0.072

Notes: (ITI) IT Implementation Success, (SR) denotes Social Responsibility, (VB) Values and Beliefs, (ITMR) IT Management Resources, (SA) Strategic Alignment, (SCA) Sustainable Competitive Advantage, (SBP) Sustainable Business Performance

The result reveal that there are significant indirect effects to the achievement of a sustainable competitive advantage via the mediating variable of Strategic Alignment (SA). Strategy alignment is an important mediating variable between social responsibility and sustainable competitive advantage with a t-value of 2.30 and a β -value of 0.117. The indirect effect was found to be also important in the case of IT management resources and successful IT implementation; t-value 3.387 and β -value 0.11, t-value 5.953 and β -value 0.527, respectively. On the other hand, the indirect effect between values and beliefs and sustainable competitive advantage was found to be insignificant at the 95% confidence level.

The findings reported in this study indicate significant relationships between the main variables and are in agreement with the literature review.

5. Discussion

The PLS SEM data analysis allows us to conclude that social responsibility and technological factors are very important determinants of achieving a long-term competitive advantage and sustainable performance in the Social Media sector. Specifically, it was found that there is a strong positive relationship between social responsibility and long-term competitive advantage. A large number of studies have also come to the same conclusion (Porter, 2011; McWilliams and Siegel, 2011). In addition, beneficial associations between values and beliefs have been found to be necessary for a long-term competitive advantage. These findings are consistent with other studies such as Kearns and Lederer (2004). This leads to the conclusion that the right values and beliefs, along with the notion of social responsibility, contribute to the formation of a long-term competitive advantage. Therefore, small and medium-sized enterprises (SMEs) should give high priority to cultivating a culture of Corporate Social Responsibility (CSR) in order to achieve and sustain a competitive advantage over their competitors.

Regarding new technology adoption, it was found that management resources information technology and IT applications contribute to competitive advantage. Research conducted by other studies such as Byrd and Turner (2001), as well as Kearns and Lederer (2004), revealed also a positive relationship between information technology management resources and of long-term competitive advantage. Moreover, the success of IT deployment has a significant beneficial impact on an organization's capability to maintain a sustainable competitive advantage.

According to Dehning and Stratopoulos (2003), information technology (IT) facilitates technology implementation processes. This helps companies gain a long-term competitive advantage by supporting the development of a plan for technology adoption. As a result, in order to achieve a long-term competitive advantage, both the availability of information technology management personnel as well as the implementation of information technology initiatives is critical. Improved development of information technology and management capabilities help a firm to gain competitive advantage in the long run. As a result, small and medium-sized enterprises (SMEs) must ensure that they improve their information technology capabilities and that their information technology status is up to date.

Additionally, strategy alignment is critical in order to maximize the positive effects of social responsibility and technology elements for long-term competitiveness and profitability. A more realistic connection between the social and technological elements and a long-term competitive advantage is created as a result of aligning the strategy with the company's long-term goals. Technology has a major role in achieving a sustainable competitive advantage and sustainable business performance.

Consequently, it is necessary to synchronize the business tactics in order to obtain the most benefits from the social and technological elements in the long term. The link between strategy alignment and creating a sustainable competitive advantage, is also supported by other studies (Chan, Shaffer and Snape, 2004). The results of the present study suggest that these factors can lead to an increase in the overall business sustainability of a company's performance.

6. Conclusion

The present study is primarily concerned with the long-term sustainability of Social Media SMEs in Greece. The purpose of this study is to investigate the role of social responsibility and technological innovation in achieving a sustainable competitive advantage and as a result a sustainable level of corporate performance in the long term. In addition, the importance of strategy alignment has emerged as a mediating variable between social barriers, technical challenges and long-term competitive advantage.

The relevance of the socio-technical environment to the long-term performance of a firm cannot be overstated. In order to achieve a sustainable competitive advantage SMEs should align their strategy to current social and technological developments and cultivate social responsibility, as well as positive employee values and beliefs. These would support the development of resources for the success of technological innovation projects. The alignment of strategy to the social and technological environmental trends is highly important for a long-term competitive advantage.

Consequently, it is recommended that Social Media SMEs in Greece should not only focus on addressing social and technological challenges but also exploit the trends and any opportunities for development. Small and medium enterprises (SMEs) should give priority to building up their social responsibility, positive employee values and beliefs, and technological innovation resources. This will bring them both short term survival and long-term sustainable business performance.

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