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Effect of Organisational Strategy on Sustainable Competitive Advantage of Manufacturing SMEs: Mediating Role of Managerial Creativity

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Abstract: This paper aims to investigate the relations between Organizational Strategy (OS), Managerial Creativity (MCT), and Sustainable Competitive Advantage (SCA) among SMEs working in Turkey, an emerging economy. A probability sampling was performed on a sample frame of 1000 SMEs' senior executives, and 324 valid responses were achieved and utilized for the data analysis. A partial least square structural equation modelling technique was assumed for the data analysis. The results showed that both OS (managerial intuition (MIT), information technology adoption (ITE), internal communication (ICN)) and MCT are significantly related to SCA. Moreover, MCT insignificantly mediates the relationship between MIT and SCA. However, the MCT significantly mediates the relationship between ITE, ICN and SCA. The current work contributes to the literature as it supplies valuable empirical proof of the relationship between OS and SCA of manufacturing SMEs. Second, this research enhances the sustainability literature by insinuating new perspectives on the role of MCT within the frame of SCA. Third, the research underlines the embodiment of MIT, ITE and the role of ICN that can improve SMEs' creative strategy toward SCA. The study limitations and future research opportunities are provided at the end.

تأثير الإستراتيجية التنظيمية على الميزة التنافسية المستدامة للشركات الصناعية الصغيرة والمتوسطة: الدور الوسيط للإبداع الإداري

ابراهيم علي سعدي

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المستخلص

يهدف هذا البحث إلى دراسة العلاقات بين الإستراتيجية التنظيمية، والإبداع الإداري، والميزة التنافسية المستدامة بين الشركات الصغيرة والمتوسطة العاملة في تركيا، ذات الاقتصاد الناشئ. تم إجراء عينة احتمالية على إطار عينة مكونه من 1000 من كبار المسؤولين التنفيذيين في الشركات الصغيرة والمتوسطة، وتم تحقيق 324 إجابة صالحة لاستخدامها في تحليل البيانات. تم اعتماد (A partial least square structural equation modelling technique) لتحليل البيانات. أظهرت النتائج أن كلاً من الاستراتيجية التنظيمية (الحدس الإداري وتبني تكنولوجيا المعلومات والاتصالات الداخلية) والإبداع الإداري ترتبط بشكل كبير بالميزة التنافسية المستدامة. علاوة على ذلك، فإن الإبداع الإداري يتوسط بشكل غير مهم العلاقة بين الحدس الإداري والميزة التنافسية المستدامة. ومع ذلك، فإن الإبداع الإداري يتوسط بشكل مهم العلاقة بين تبني تكنولوجيا المعلومات والاتصالات الداخلية والميزة التنافسية المستدامة. يساهم العمل الحالي في الأدبيات لأنه يوفر دليلاً تجريبياً قيماً على العلاقة بين الاستراتيجية التنظيمية والميزة التنافسية المستدامة للشركات الصغيرة والمتوسطة في مجال التصنيع. ثانياً، يعزز هذا البحث أدبيات الاستدامة من خلال التلميح إلى وجهات نظر جديدة حول دور الإبداع الإداري ضمن إطار الميزة التنافسية المستدامة. ثالثاً، يؤكد هذا البحث على تجسيد الحدس الإداري وتبني تكنولوجيا المعلومات والاتصالات الداخلية الذي من الممكن تحسين الإستراتيجية الإبداعية للشركات الصغيرة والمتوسطة تجاه الميزة التنافسية المستدامة. يتم توفير قيود الدراسة وفرص البحث المستقبلية في نهاية البحث.

الكلمات المفتاحية: الميزة التنافسية المستدامة، الإستراتيجية التنظيمية، الحدس الإداري، تبني تكنولوجيا المعلومات، الاتصال الداخلي، الإبداع الإداري.

1. Introduction

One of the major issues in business management is to maintain sustainability in the long term. Develop the operational Competitive Advantage in a sustainable manner helps companies to achieve a high level of prosperity (Schaltegger & Hörisch 2017). Sustainable Competitive Advantage (SCA) transacts with suitable response models regarding economic, social, and environmental facets to actualise products, services, operations, and business performance. The recently advanced concept of SCA has altered and expanded the business perspective from managing solely economic policies to evenly performing social, ecological, and environmental responsibilities (Tasleem et al. 2019). The importance of SCA lies in its possibility to supply felicitous business. However, the Resource-

Based View (RBV) perspective has demonstrated that organisational strategy (OS) has a pivotal impact on SCA (Nayal et al. 2022). The focal presumption of RBV is that companies can establish sustainable competitive merit by evolving intangible resources that are worthy, infrequent, and heterogeneous (Jaisinghani 2016), (Sandhu 2013). These resources compromise the knowledge and skills availability (Amaya et al. 2022), (Sciascia et al. 2014). Factually, knowledge as an inherent power (Liao et al. 2017) and a possible resource to improve other intangible resources (i.e., OS) has been investigated comprehensively (Acciarini et al. 2020). However, the worth of decision skills becomes apparent in senior executives' performance and their influence on organisational accomplishment. Thus, scholars have revealed that the intangible character of OS coming out of tacit knowledge and innovative skills is distinguished from insight; it is a much more prolonged operation (Coleman & Casselman 2016), (Klein 2015; Manaf et al. 2020). Meanwhile, the significance of managerial creativity (MCT) is conspicuous in the Irish Government's Action Plans for Jobs (McGuirk et al. 2015). Creativity is pivotal to business prosperity (Hernández & Galvis 2021), (Kneipp et al. 2021). In a sense, strategic actions must be designed creatively to encourage a sustainability approach (Stocker et al. 2022). Factually, enterprises' strategies depend on MCT to execute SCA and efficacious responses to incessant environmental changes (Arsawan et al. 2020), (Prajogo 2016). Hence, the relation between OS, MCT, and SCA, particularly in the context of SMEs, stays vague and necessitates further inquiry.

In Turkey, SMEs supply a premium research state. At the same time, the International Private Enterprises Centre proclaimed that the private industrial sectors in Turkey, specifically SMEs, must consider the ability of vocational human resources, enactment, adept planning, and convenient knowledge of the present industrial growth and production. In this regard, this ability is sorely tested when these SMEs operate to compete with firms in the European Union. These low contributions are probably a repercussion of inadequate potentialities in shaping efficient policies toward establishing a competitive enterprise. This condition directs this industrializing sector to face several strategic defiances that may impede the entrepreneurial demeanours and activities in generating new products and executing manufacturing operations. Moreover, these strategies must be framed

innovatively to cope with the quick global alterations (Donkor et al. 2018), Saadi & Razak 2019). Thus, the present study discusses that OS (Managerial intuition, IT adoption, and internal communication) directly influences SCA and has an indirect impact through the intermediary role of MCT.

Accordingly, as far as the researchers know, this study is one of the few studies performed in developing nations, particularly in the enterprises sector, to investigate the OS, MCT, and SCA relations. As a result, this study adds to the literature by developing a holistic model that affirms three facets. First, this study investigates and articulates to what extent the OS (Managerial intuition, IT adoption, and internal communication) impacts the SCA of manufacturing SMEs. The initial literature search has unfolded the richness of literature factors that have not yet been revised, considering influencing SCA. Nevertheless, most of the preceding studies were taken from the Western context, fundamentally in developed countries like Europe and Australia (Adams et al. 2018), (Cavaleri & Shabana 2018), (Delmas & Pekovic 2018), (Pluskal et al. 2021), without considering the significance of senior managers' capacity to produce spectacular strategies in enhancing the sustainability of enterprises. Therefore, an analysis of OS in the context of aggrandizing SCA may supply important notions for manufacturing SMEs. Second, this research augments the literature by applying new insights into the MCT role within the frame of SCA. Hence, MCT is at the vanguard of the sustainability literature by inaugurating new questions and objectives for future research. Third, this research bids worthy contribution by adopting intangible resources (i.e., skills and knowledge) to be the key player in creative decisions that end in creative products, processes, and strategies to address probable sustainability.

Though this research is divided into the following parts: introduction, literature review, elaborate hypotheses, and research framework have been presented in detail. The methodological grounds are presented to provision the analysis. Then, the research introduces the findings and their implications and ultimately debates the limitations and approaches for future studies.

2. Literature Review

2-1. Sustainable Competitive Advantage: Sustainable Development (SD) concept was first presented and expounded by the World Commission on Environment and Development (WCED) in 1987 as “development that meets the needs of the present generation, without compromising the ability

of future generations to meet their own needs.” In the literature, the debate on SCA has escalated remarkably in the past 20 years and transformed from the general facet of conserving the environment to enterprise strategies. Thus, developing from the authentic definition of SCA, the literature has introduced novel definitions of SCA. SCA indicates the capability of the organisation to meet present business requirements perfectly and strategically arrange and address future business requirements (Porter & Reinhardt, 2007: 34). SCA is an excellent variable in the strategic situations within which business works (Klettner et al. 2014: 65-145) and has recently become a prime precept in guiding 21st-century decision-making (Terouhid 2013: 99).

Salzmann et al. (2005: 27) expounded SCA alongside the brilliant and profitable business equivalent of environmental and social reasons generated by companies' major and substitutional activities. However, Kwarteng et al. (2016: 11) indicated that dimensions of (social, economic, and environmental) are essential for SCA manar of manufacturing enterprises. Savitz (2013: 43) propped this perspective, emphasizing the ternary pillars economic, social, and environmental in SCA that make a perpetual stakeholder's value by considering and handling ramifications that may result from the business evolution. Their importance is known in SCA, and organisations are starting to distinguish and consent to the requirement to merge social and environmental accountabilities into their activities as a portion of their strategies (Giaccio et al. 2018: 58), (Yazici 2020: 18).

Enterprises have begun playing crucial roles in evolving strategies towards society and the environment. Both previously and since the WCED's investigation of sustainability (Amini & Bienstock 2014:12-9), prosperous enterprises follow SCA (Tsai et al. 2013: 67). Nevertheless, the ternary pillars of the sustainability concept support an organisation and its prosperous milieu. Due attention must be assigned to all the ternary pillars of sustainability rather than a sole, temporary concentration on economic sustainability (Nouri et al. 2018: 29). Therefore, Khodaiji and Christopoulou (2020: 33-65); Tsai et al. (2013: 67) regarded ternary pillars of sustainability as a key to any person or organisation's thinking on economic evolution. Thus, the concept of SCA has insisted on incorporating social and environmental cases into the activities of companies and apprehensions for stakeholders' requirements by merging these cases into business strategies

(Kitsios et al. 2020: 521), (López et al. 2007: 285-300). After introducing literature review, the ternary pillars of SCA specify the analytic and standard scope to which is applied to the most exceedingly admissible definition of SCA (Laurell et al. 2018: 37-518), (Sachs 2012: 11), (UNWCED 1987) and the most reliant definition by various authors (Cella-De-Oliveira 2013), (Javed et al. 2020: 44), (Jayashree et al. 2021: 53-77) with experimental works in the region (CeLLA-De-OLIVeIRA 2012), (Dias 2013: 12), (Hernández-Perlines & Rung-Hoch 2017: 1212) and has been chosen for the current study. However, other scholars fail to cite the ternary pillars but instead group SCA into similar pillars (Azapagic 2003: 16-303), (Ramcilovic-Suominen & Pülzl 2018: 80-4170).

2-2. Organisational Strategy: Several studies have confirmed the OS as a significant determinant impacting SCA (Bodhanwala & Bodhanwala 2018: 94), (Stocker et al. 2022: 9-174). This study revises three critical components of OS: Managerial Intuition (MIT), Information Technology Adoption (ITE), and Internal Communication (ICN). From an executive management point of view, Tareq (2016: 5) examined them as OS and often are board members of the organisation in charge of the accountability of formulating strategies. In this regard, executive managers' liability encompasses taking OS, which affects an organization's long-term performance (Rehman et al. 2020: 22-37). Inflexible sustainable involvement is viewed as a strategic initiative, compromising environmental and social applications by business companies as a portion of their corporate social accountability (Brammer et al. 2007: 19), (Klettner et al. 2014: 65-145). So, advocacy from the executive management to sustain as a candid component of the strategies of enterprises was considered by assessing the probability of involving sustainability according to the strategies of enterprises. Therefore, actions of the manager's strategy have been determined as possible influencers impacting the organisation to indulge in sustaining (Calabrese et al. 2019: 68-155), (Coteur et al. 2016: 16-23), (Peterlin et al. 2015: 3). When economic situations alter over time, managers must modify their strategies to retain the organisation's sustainability.

Nevertheless, intuition can promote judgment for OS through either cognition or sentiment, and there have been suggestions for integrating the two (Liebowitz et al. 2019: 77), (Okoli & Watt 2018: 97). Khatri and Ng (2000: 57-86) proposed that there are three measures of intuitiveness:

judgment dependence (if business cannot be construed, decision-makers are required to execute judgment rather than rely on computation), dependence on experience, and the significance of gut feeling (having an instinctive emotion about any object without any reference). However, there are debates that intuition can grant quicker and more efficacious decisions. MIT has been connected with prop for strategic alteration, performance amelioration, and competitive advantage (Gallén 2006: 66). Consequently, in contrast with an analytical decision, MIT is a significant factor in differentiating between executive managers in competence and capability to make the right decisions that attain maximum SCA (Klein 2017: 65-145).

However, in the context of ITE, preceding studies have emphasised that it supplies a senior executive manager with the sophisticated capacity of considerable data set analysis, computing, and information processing in creating significant insights that encourage more resilient strategic decisions regarding the present world issues (Chen et al. 2017: 10-25), (Lui et al. 2016: 54-345), (Turulja & Bajgoric 2018: 76). Executive managers should be eligible to comprehend and utilise information technology (Wu et al. 2015: 497-518). Besides, the strategic management literature and information technology can give thoughts about illustrating potential information technology performance impacts on sustainability strategy (Chen et al. 2017: 10-25). Many researchers who examined an ITE assured that senior executive prop is necessary for SCA (Lui et al. 2016: 54-345). However, ITE is vital in managers' vision and willingness to take the plunge in redesigning the organisation concerning the sustainability approach (Manfreda & Štemberger 2018: 19), (Turulja & Bajgoric 2018: 76).

In addition to what was mentioned above, different studies have confirmed the critical impact of ICN on managerial and strategic decisions (Laajalahti 2018: 65), (Valitova & Besson 2021: 77). Interpersonal communication supplies the reciprocity of information and everyday experience, and they are the foundation for evolving and amalgamating tacit knowledge (Wu et al. 2015: 497-518). Becoming an eligible inner communicator for executive managers in the 21st century has become an effective process of managerial decision-making that leads to a more inclusive pillar of sustainability and prosperity (Le Fevre & Robinson 2015: 58-95), (Soriano et al. 2018: 31). Currently and gradually more so in the future, the potentiality of enterprises to create sustainability is assessed by

managers-employee relations as a source of managerial process and the extension of a more comprehensive organisational strategy (Le Fevre & Robinson 2015: 58-95), (Maheshwari et al. 2020: 42). Thus, in the context of organisational strategy, ICN is a crucial distance to prop the concept of SCA. Therefore, this study adopts MIT, ITE, and ICN to illustrate OS and its impact on SCA for the causes set out above.

2-3. Managerial Creativity: An innovation process consists of two main activities: creativity and innovation. Creativity involves the generation of novel and useful ideas while innovation entails the implementation of these ideas into new products and processes. Creativity has a pivotal role in the continuity of enterprises and is widely recognised as the commercial implication of recent knowledge and the application of thoughts (Cefis & Marsili 2006: 41-626). The creativity literature focuses on the influential role played by human capital and their essential contribution to the activities of the companies (Úbeda-García et al. 2018: 92), (Zapata-Cantu 2020: 66). Human capital plays a pivotal role in innovation (McGuirk et al. 2015: 76-965), with its focal element of economic evolution (Alaaraj et al. 2018: 87). Alongside the policymakers' increasing awareness of the role of human capital in creativity, academic research augmented, too (Grant 1997: 4). However, De Winne and Sels (2010: 83) elaborated on the creativity theory to consider the notion of MCT as a competitive advantage. Synchronously, the human capital criterion measure is expanded via evolving a far-fetched and unparalleled notion of MCT. Thus, evolution and prosperity have a positive connection with human capital, whilst creativity of them is the major factor (Jegade et al. 2016: 27-49).

The term sustainable development was formulated at the United Nations Conference on the Human Environment in 1972 (Hall et al. 2010: 48). The opportunities to create sustainability received significant attention with the Brundtland report in 1987 (Klewitz & Hansen 2014: 57-75). The most prosperous enterprises maintain a pure concentration on the employees' innovation and creativity through all business activities, supporting discovering methods and innovative behaviours and creating sustainable drive (Ikeda et al. 2016: 9-19). Applying the concept of sustainability to the human creativity domain is debatable innovations that look to maintain or even increase the overall capital stock like social, environmental, and economics of an enterprise (Stocker et al. 2022: 9-174). Nevertheless,

sustainability places a standard request on human creativity to become more environmentally and socially amiable and, synchronously, grants a novel source and competitive advantage (Simao & Franco 2018: 19). However, the prior literature search has affirmed that human capital provides a competitive edge with skill and knowledge (McGuirk et al., 2015: 76-965). The number of qualified and knowledgeable employees, particularly in senior positions, has accelerated in developed countries as the requirements for creativity strategies are augmented in a contemporary competitive environment (Doran & Ryan 2014: 9-107).

One of the core techniques of employees' creativity is knowledge due to its importance in innovating up-to-date thoughts and disseminating novel knowledge (Doran & Ryan 2014: 9-107). Former studies assert that one can find explicit and tacit knowledge (Caloghirou et al. 2017: 1-18). However, the sustainability literature has underlined the possibility of tacit knowledge in actualizing SCA. Tacit knowledge is hard to conceptualize, personal, and implied. It is the portion of a person's experiences that emerges from learning by doing; it is proved in actions or behaviours and is often exceedingly vague (Pérez-Luño et al. 2018: 1-13), (Schoenherr et al. 2014: 35-121). For Polanyi (1966), tacit knowledge is expounded as “knowing more than we can tell” or as “knowing how to do something without thinking about it.” Von Krogh et al. (2000: 66) anticipated that tacit knowledge is widely the major origin of an innovation of a company. Thus, ‘tacit knowledge’ is the focal attribute of employees' creativity and competition (Hartono & Sheng 2016: 47-335), (Malik 2021: 70). Hence, enterprises evolve knowledge and potentialities that cause them to be creative and leverage their sustainability (Chaurasia et al. 2020: 40).

In contrast, Mincer (1962: 50-79) indicated that knowledge of employees alone is inadequate for labour force training in formulating the evolution of employees. Recognizing training requirements in innovation and creativity is critical (Sarri et al. 2010: 88-270). McGuirk et al. (2015: 76-965) expounded the conventional concept of investing in capital as compromising expenditures on training, thereby generating human capital rather than physical capital or financial. The focal role of human capital training in supporting innovation is distinguished (Manresa et al. 2019: 17). Accordingly, this study distinguishes between specific and general training; general training is linked to knowledge and dexterities that are smoothly

conveyable, whereas particular training links to dexterities and knowledge that are less transmittable and have a narrower implementation range. It has been figured out that particular training can enhance particular knowledge and proficiencies without reducing productivity and augmenting innovation potentiality (Manresa et al. 2019: 17), (Thiele Schwarz et al. 2016: 35-45). For Becker (1993: 39), specific training can be recognized as training that has no impact on the trainee's productivity that would be demanded in other companies and leads to larger work creativity for the enterprises supplying the training.

Hence, this research aims at tacit knowledge and specific training to illustrate creative human capital because of their significance in recognizing the plane of innovation of executive managers in formulating the enterprise strategies that prop the concept of SCA. Becker (1993: 39) elucidated capital as money in the bank or stocks in an enterprise. However, he appended that training courses and incomparable knowledge are investments. There is no widely passable indicator of human capital in the literature despite training and tacit knowledge having been believed for a long time to be adequate proxies (Romer 1990: 71-102).

3. Hypotheses Development and Research Framework: An OS can be an incredibly diverse resource due to dissimilarities in managers' expectations, dexterities, and knowledge in executing organisational strategy (Cavaleri & Shabana 2018: 22), (Kunc & Morecroft 2010: 82-1164). Behavioural features of decision-making should be viewed as a pivotal origin of organisational implementation integral to unrivalled resources and viable to a vast scope of conditions, including the administration of effortlessly acquired and tradable resources (Han & Zhang, 2021: 10). Numerous reasons may illustrate why OS should be profitable for propping SCA. The most eminent one is embodied in the adoption of crucial strategies that sustain and protect business processes in the long term (Calabrese et al. 2019: 68-155). However, associated theoretical studies have affirmed the critical impact of intuition as a dimension of OS on SCA (Calabretta et al., 2017: 365-444). For the senior executives' lofty managerial place that demands future OS, they fetch in whatever they have noticed, sensed, savoured, and tested in industries and pursued by OS on the foundation of deep and intimate comprehension of the situation (Tareq 2016: 5). Therefore, the intangible character of MIT is recognizable from the point of view; it is a further

prolonged operation and can be compared to the deliberative pattern of decision-making. Contrastingly, this contributes to SCA (Mori 2010: 9), (Tareq 2016: 5).

One more significant aspect of OS is ITE. Information technology research largely depends on the RBV of enterprises to display the cause (Di Vaio & Varriale 2018: 783). Information technology can provide enterprise permanence (Lioukas et al. 2016: 83-161), (Panda & Rath 2021: 63). Within information technology investments, decision-making is essential on the larger strategic plane as it has a straightforward impact on how companies manage their work in the long term (Bhatt et al. 2010: 9-341), (Wu et al. 2015: 497-518). Strategic outputs of processes of enterprises are initially information and knowledge (Hartono & Sheng 2016: 47-335), (Malik 2021: 70). If managed well, they will enhance the intelligent assets of enterprises (Alwan et al. 2017: 58-349), (Reynolds et al. 2017: 16). Thus, prior strategic studies demonstrate that the maturation and take-off of information technology evolution reinforce the strategic decision formulations in the context of SCA (Alwan et al. 2017: 58-349), (Antoni et al. 2020: 81-159).

Nevertheless, researchers also assured that ICN is a practical dimension of OS. Establishing and communicating knowledge, as a potentiality, is viewed as a resource that can create cosmopolitan strategic competitive merit (Singh et al. 2021: 98-788). It shows that sustainable organisational growth emerges from evolving such resources (Mahdi et al. 2019: 34-320). As apparent from the perspective of RBV, the efficient and effectual influx of knowledge and information within the organisation guides sustainable policy and constantly directs to sustainable performance and productivity. Hence, employees' and senior executives' communication plays a significant role in encouraging organisational competence. It contributes by adding an opportunity to improve the leader's vision, which could support SCA (Barney 2000: 27-203), (Mazzei 2010: 34-221), (Veltri & Nardo 2013: 26-51). Thus, grounded on the debate above, this research suggested the subsequent hypotheses:

H1a. MIT is positively associated with SCA.

H1b. ITE is positively associated with SCA.

H1c. ICN is positively associated with SCA.

This study presupposes that OS is a predictor for MCT. Effectual OS may enhance competitive performance across the environment by guiding

the critical adoption of prosperous new products and enhancing competence-obtaining operation technologies even in established industries (Adams et al. 2019: 40-129). Robert Baum and Wally (2003: 29-1107) noticed a positive relationship between enterprise strategy and competence. However, the fundamental concept of employee-driven creativity stays on the presumption that employees have unnoticed capacities for creativity (Donate & de Pablo 2015: 70-360), and this potency can be made visible, utilized, and distinguished for the interest of both the enterprises and their employees. In a sense, senior executives have various powerful sources in terms of decision-making and influencing organisational conduct. Creative behaviour is no exclusion. Thus, OS may positively affect the employees' creativity by altering the routines of enterprises that guide an augment in creativity activities (Begum et al., 2021: 56). However, prior studies have discovered that innovation and creative behaviour are not always resolute but accidental manifestations that could result from strategic decisions (Li et al. 2021: 1023). The possibility for various sorts of creative behaviours is often formed by the total strategic vision of enterprises and their proactive nature. Thus, this study presented the next hypothesis:

H2a. MIT is positively associated with MCT.

H2b. ITE is positively associated with MCT.

H2c. ICN is positively associated with MCT.

Several former researchers proposed that MCT occupies a straightforward place in supporting enterprises' sustainability and competitiveness (Abdul Kohar 2013: 9), (Belenzon & Schankerman 2015: 795-820), (Mahmoud et al. 2016: 48-623), (Stocker et al. 2022: 9-174). In their experimental research, Raymond and St-Pierre (2010) discussed that managers' creativity has been viewed as a central component in the SMEs' existence. The most significant effectual enterprises focus on innovation and creativity in all business facets, support creative conduct, and find methods to maintain innovation competence (Ikeda et al. 2016: 9-19). Contextually, researchers (Singla et al. 2018: 72-240) noted that manufacturing executes a critical business process in internationally industrialized countries. However, its environmental effect has become an issue of concern, demanding industrialists adopt sustainable competitive approaches. In a sense, it is about producing more with fewer resources. For instance, augmenting productivity while reducing resource exploitation (Afum et al. 2021: 40), (Begum et al.

2021: 56). These defiances force industrializing enterprises to choose and improve innovative and creative activities to encourage recent products and effectually utilize sustainable industrializing means and technologies, reflecting a sustainable competitive potential.

However, prior studies have discovered that the theoretical scope supplied by the RBV facilitates a prominent analysis of MCT and its connection with corporate evolution, performance, competitiveness, and sustainability (Di Vaio & Varriale 2018: 783), (Mol & Birkinshaw 2009: 80-1269), (Varadarajan 2017: 14-36), (Yang et al. 2009: 4-20). RBV is an excellent perspective to view MCT as, out of many, the most significant and sustainable origins of an enterprise's sustainable competitive merit due to its context-specific nature (Camisón & Villar-López 2014: 902-2891). Thus, based on the earlier theoretical studies and experimental outcomes, this research proposes the coming hypothesis:

H3. MCT is positively associated with SCA.

The central presumption of RBV is that only enterprises with certain potentialities and resources with distinct features attain sustainability (Sandhu 2013: 19-38). Creativity is the concealed resource critical to success (Bashir & Farooq 2019: 20), (Camisón & Villar-López 2014:902-2891). Such a method explains that employees are considered “creativity assets”. The human capital significance is apparent in the Irish Government’s Action Plans for Jobs (McGuirk et al. 2015: 76-965). MCT can produce a sustainable economic evolution (jobs, sales, and productivity).

The enterprise strategy is concerned with long-term evolution. Long-term development of enterprises contains a number of components, such as purposed sources of competitive advantage, how resources are to be obtained and managed, and decisions concerning scope (Bashir & Farooq 2019: 20). Therefore, dynamic strategic decisions must be structured creatively. This means systematic creative strategy formulation should encourage sustainable gain (Arsawan et al. 2020: 67). Innovative and creative enterprise strategies depend on and utilize senior executives as a source of sustainability approaches and effectual responses to constant environmental alterations (Ireland & Webb 2007: 49-59), (Prajogo 2016: 9-241). Thus, the above discussions emphasize that MCT would improve the efficiency of OS in aggrandizing SCA. Therefore, the subsequent hypothesis is proposed:

HM1. MCT mediates the association between MIT and SCA.

HM2. MCT mediates the relationship between ITE and SCA.

HM3. MCT mediates the association between the ICN and SCA.

Grounded on the evolved theoretical discussions previously, the theoretical scope (as depicted in Figure 1) articulates how OS impacts the SCA directly and indirectly through MCT.

4. Methodology

4-1. Data collection and sample: A self-managed survey collected information from senior executives of industrializing SMEs in Turkey. The questionnaire was managed for five months, from the beginning of January 2022 to the end of May 2022. Small and Medium Industry Development Organisation (SMID) in Turkey was the reference database adopted for this study sampling. Accordingly, out of 625000 SMEs, 1,000 SMEs were randomly selected. Ultimately, 324 surveys were utilizable for this study, representing 32.4 per cent of a total distributed questionnaire. The non-response bias evaluation was managed by the t-test mechanism, as advised by Armstrong and Overton (1977). Non-response bias testing was conducted by contrasting the former with the later replies of respondents concerning examined variables, and the outcomes reveal no significant variances between the two sets. Thus, it is possible to deduce that the respondents' replies from these two sets are bare of data bias.

However, the language of the survey was changed into the Turkish language based on Brislin (1970) way as long as those who take the survey are of the Turkish area, after transmitted to two bilingual specialists (English/Turkish) to affirm that these two copies texts were harmonious. After that, the ultimate Turkish copy was translated back to English by another bilingual specialist to terminate the dissimilarities.

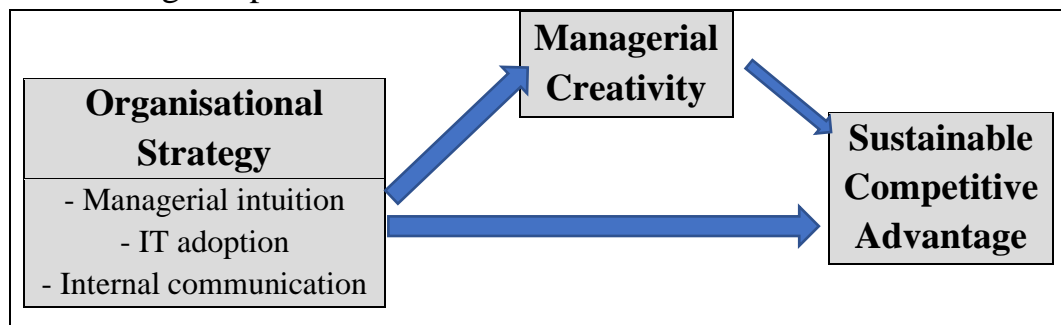


Figure (1): Conceptual Framework

4-2. Demographic Characteristics: Table 1 presents the respondent's characteristics. 97.1% of the respondents were business owners, and the

remaining were non-owners. Among the respondents' 86.9 represent small-size firms, and the remaining represent medium-sized firms. 46.5% of the respondent works in the construction industry, 25% in food, 15.1% in non-metal works, metal industry (6.1%), Machinery and equipment (1.9%), Textile (1.9%), paper (1.9%), and electric (1.6%). The results are provided in Table 1.

Table (1): Profile of the Respondent

Respondents	N	%	Industry	n	%
Owner	303	93.5	Construction	145	46.5
Non-owner	21	6.5	Food industry	90	27.7
Total	324	100.0	Non-Metal	47	15.1
			Metal Industry	19	6.1
Firm Size			Machinery & Equipment	6	1.9
Small	277	85.5	Textile	6	1.9
Medium	47	14.5	Paper Mills	6	1.9
Total	324	100	Electric	5	1.6
			Total	324	100

Source: (Prepared by the Researcher Based on the Analysis Results)

5. Statistical Analysis and Results: We evaluated the constructs' reliabilities using Cronbach's alpha (CA), DG rho, and composite reliability, following the instructions from Hair et al. (2017). The study outcome exposes that all CA scores were above 0.70, exceeding the threshold, demonstrating the reliability of the study constructs. All items had DG rho values greater than 0.70. Furthermore, all study constructs had CR values above 0.70, demonstrating the reliability of the constructs. The construct's average extracted variance (AVE) must be more than 0.50. The findings provide high convergent validity and show that all AVE is over 0.50 (Hair et al., 2017). The variance inflation factor (VIF) must be lower than 3.3 (Henseler et al., 2015). Since the VIF values were less than 3.3, multicollinearity was not a problem detected (Kock, 2015). The results are offered in Table 2.

Table (2): Descriptive Information of Variables

Variables	Mean	SD	Cronbach Alpha	Composite Reliability rho-a		AVE	VIF
MIT	5.279	1.017	0.904	0.904	0.940	0.838	1.966
ITE	5.029	0.994	0.904	0.906	0.929	0.723	1.835
ICN	5.266	1.085	0.885	0.891	0.929	0.813	1.727

Variables	Mean	SD	Cronbach Alpha	Composite Reliability rho-a		AVE	VIF
MCT	5.138	1.175	0.893	0.898	0.915	0.574	1.406
SCA	5.119	1.033	0.920	0.891	0.931	0.512	-

Source: (Prepared by the Researcher Based on the Analysis Results)

Note: MIT: Managerial intuition, ITE IT Adoption, ICN: Intenal Communication, MCT: Managerial Creativity, SCA: Sustainable Competitive Advantage.

The constructs' discriminant validity was measured using the Fornell-Larcker criterion, Hetro-trait and Mono-trait (HTMT), and cross-loading scores. According to Table 3, the findings imply that the study model exhibits discriminant validity. Acceptable HTMT ratio values for the study's constructs show good convergent validity (Henseler et al., 2015). According to reports, the item loading and cross-loading allowed the study constructs to have a suitable level of discriminant validity (See Table 3 and Table 4).

Table (3): Loading and Cross-loading

Item	MIT	ITE	ICN	MCT	SCA
MIT1	0.910	0.547	0.555	0.383	0.516
MIT2	0.917	0.576	0.596	0.416	0.544
MIT3	0.919	0.550	0.534	0.371	0.534
ITE1	0.552	0.800	0.480	0.0367	0.478
ITE2	0.518	0.874	0.467	0.415	0.447
ITE3	0.520	0.858	0.381	0.401	0.404
ITE4	0.489	0.860	0.477	0.434	0.492
ITE5	0.522	0.859	0.488	0.422	0.480
ICN1	0.558	0.477	0.902	0.422	0.515
ICN2	0.586	0.505	0.920	0.416	0.524
ICN3	0.516	0.476	0.883	0.431	0.451
MCT1	0.250	0.397	0.282	0.760	0.485
MCT2	0.277	0.268	0.288	0.618	0.429
MCT3	0.278	0.361	0.327	0.765	0.489
MCT4	0.322	0.341	0.322	0.702	0.461
MCT5	0.407	0.402	0.446	0.827	0.509
MCT6	0.321	0.350	0.319	0.775	0.445
MCT7	0.387	0.421	0.426	0.818	0.515
MCT8	0.324	0.349	0.289	0.775	0.399
SCA1	0.76	0.491	0.372	0.578	0.736

Item	MIT	ITE	ICN	MCT	SCA
SCA2	0.399	0.480	0.359	0.589	0.783
SCA3	0.424	0.416	0.355	0.519	0.658
SCA4	0.369	0.464	0.394	0.536	0.775
SCA5	0.418	0.405	0.340	0.433	0.675
SCA6	0.353	0.362	0.473	0.452	0.764
SCA7	0.504	0.350	0.437	0.374	0.741
SCA8	0.414	0.326	0.420	0.340	0.730
SCA9	0.445	0.293	0.402	0.249	0.640
SCA10	0.395	0.319	0.447	0.353	0.652
SCA11	0.471	0.311	0.375	0.264	0.626
SCA12	0.398	0.311	0.408	0.370	0.708
SCA13	0.433	0.311	0.415	0.347	0.730

Source: (Prepared by the Researcher Based on the Analysis Results)

Note: MIT: Managerial intuition, ITE Information Technology, ICN: Internal Communication, MCT: Managerial Creativity, SCA: Sustainable Competitive Advantage.

Table (4): Heterotrait-Monotrait Ratio (HTMT)

	MIT	ITE	ICN	MCT	SCA
Fornell-Larcker Criterion					
MIT	0.916				
ITE	0.611	0.850			
ICN	0.614	0.541	0.902		
MCT	0.427	0.480	0.451	0.758	
SCA	0.585	0.541	0.558	0.598	0.715
Heterotrait-Monotrait Ratio (HTMT)					
MIT	-				
ITE	0.676	-			
ICN	0.684	0.603	-		
MCT	0.472	0.531	0.501	-	
SCA	0.640	0.570	0.618	0.640	-

Source: (Prepared by the Researcher Based on the Analysis Results)

Note: MIT: Managerial intuition, ITE Information Technology, ICN: Internal Communication, MCT: Managerial Creativity, SCA: Sustainable Competitive Advantage.

Assessment of Structural Model: The three exogenous constructs (MIT, ITE, and ICN) explained 28.2% of the variation in Managerial creativity (MCT), reportedly by the adjusted r^2 value. The study model's predictive relevance for the Q^2 score for this section is 0.159, indicating a medium

predictive relevance (Chin, 2010). The adjusted r^2 value for the MCT as an exogenous construct on the SCA elucidates 51.4% of the change in the sustainable competitive advantage. The predictive relevance Q^2 score for this portion of the study model is 0.255, showing a medium predictive relevance for endogenous construct (Chin, 2010).

The path between MIT and SCA ($\beta = 0.257$, $p = 0.000$) exposed that managerial intuition had a positive and significant relationship with sustainable competitive advantage, thus offering support to accept the H1a. The path value between ITE and SCA ($\beta = 0.103$, $p = 0.036$) revealed that ITE had a positive and significant relationship with SCA, thus supporting the acceptance of H1b. The path value between ICN and SCA ($\beta = 0.184$, $p = 0.001$) displayed that internal communication is significantly related to sustainable competitive advantage. The result offers evidence to accept H1c. The path between MIT and MCT ($\beta = 0.290$, $p = 0.050$) exposed that managerial intuition had a positive and significant relationship with managerial creativity, thus offering support to accept the H2a. The path value between ITE and MCT ($\beta = 0.290$, $p = 0.000$) revealed that ITE had a positive and significant relationship with MCT, thus supporting the acceptance of H2b. The path value between ICN and MCT ($\beta = 0.227$, $p = 0.001$) displayed that ICN is significantly related to MCT. The result offers evidence to accept H2c. The path coefficients between the MCT and SCA ($\beta = 0.356$, $p = 0.000$) suggested a positive and significant relationship between MCT and SCA, supporting the acceptance of H3. The outcomes are provided in Table 5.

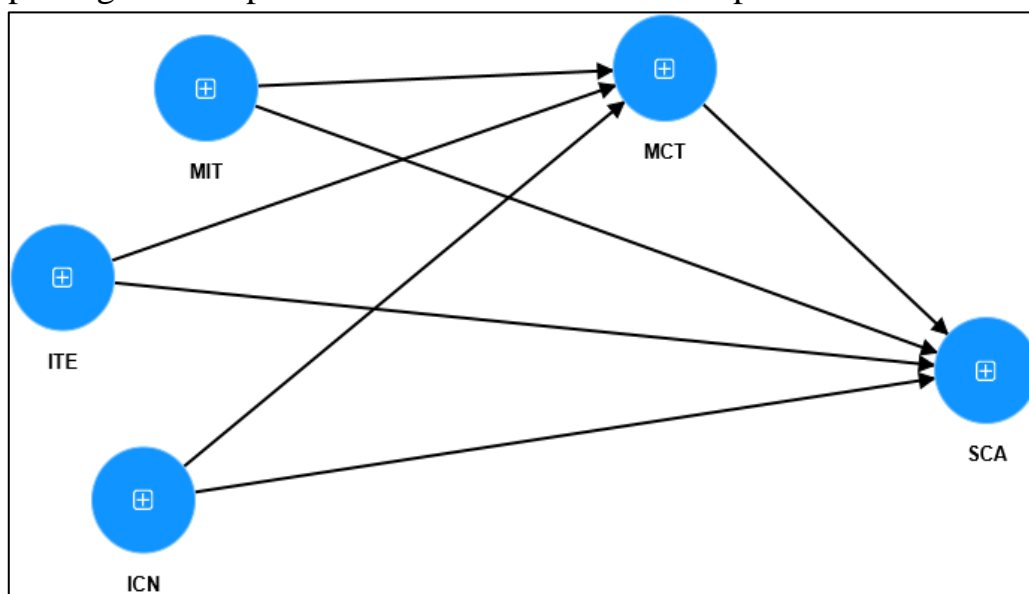


Figure (2): Structural Model

Table (6): Hypotheses Testing

Hypothesis	Path	B	Std.	CI Low	CI High	T	P Values	r ²	Q ²	f ²	Decision
H1a	MIT -> SCA	0.257	0.070	0.137	0.370	3.648	0.000			0.070	Supported
H1b	ITE -> SCA	0.103	0.057	0.008	0.196	1.795	0.036			0.012	Supported
H1c	ICN -> SCA	0.184	0.060	0.085	0.281	3.055	0.001			0.039	Supported
H2a	MIT -> MCT	0.110	0.068	0.001	0.223	1.612	0.050			0.009	Supported
H2b	ITE -> MCT	0.290	0.064	0.187	0.395	4.566	0.000			0.069	Supported
H2c	ICN -> MCT	0.227	0.072	0.109	0.346	3.162	0.001	0.289	0.159	0.042	Supported
H3	MCT -> SCA	0.356	0.066	0.251	0.466	5.430	0.000	0.520	0.255	0.188	Supported

Source: (Prepared by the Researcher Based on the Analysis Results)

Note: MIT: Managerial Intuition, ITE Information Technology, ICN: Internal Communication, MCT: Managerial Creativity, SCA: Sustainable Competitive Advantage.

The mediation effect of the MCT was verified with HM1 for the relationship between MIT and SCA. The result discloses that the MCT insignificantly mediates the relationship between MIT and SCA affords not to accept the HM1. For HM2, the relationship between IT and SCA is mediated by MCT. The result shows that the MCT significantly mediates the association between IT and SCA; it offers sustenance to accept the HM2. For HM3, the relationship between COM and SCA is mediated by MCT. The result shows that MCT mediates the relationship between COM and SCA; it offers evidence to admit the HM3. The results are provided in Table 6.

Table (6): Mediation Analysis

Hypothesis	Path	B	Std.	CI Low	CI High	T	P Values	Decision
HM1	MIT -> MCT -> SCA	0.039	0.026	-0.001	0.086	1.489	0.068	Not-Supported
HM2	ITE-> MCT -> SCA	0.103	0.031	0.115	0.058	3.378	0.000	Supported
HM3	ICN -> MCT -> SCA	0.081	0.029	0.066	0.037	2.806	0.003	Supported

Source: (Prepared by the Researcher Based on the Analysis Results)

Note: MIT: Managerial intuition, ITE Information Technology, ICN: Internal Communication, MCT: Managerial Creativity, SCA: Sustainable Competitive Advantage.

6. Discussion and Implications: Organisational strategy always helps the organization to perform sustainably. The current research aims to expose the

effect of OS with the help of managerial intuition, information technology, and internal communication among the SMEs in Turkey. The research discovered that all the factors of OS (MIT, ITE, and ICN) have a significant positive effect on the SCA, referring to the augment in the level of OS that will guide to an augment in the MCT of manufacturing SMEs in Turkey. OS among SMEs will affect the quality of senior executives' decisions and will guide to more precise decisions in terms of success and survival. Managerial intuition, information technology adoption, and internal communication among SMEs have contributed to the augment in the SCA of these enterprises. These results are compatible with the RBV, which proposed that enterprises can enhance their performance when they avail of their internal resources and capacities. The inferences of this study are in harmony with prior literature (Bodhanwala & Bodhanwala 2018), (Stocker et al. 2022), which proposed a positive connection between OS and SCA. Therefore, SMEs in Turkey that are meant to augment their SCA have to concentrate on the OS, specifically on the managerial intuition and the utilization of information technology systems such as Decision Support System (DSS) or Enterprise Resource Planning (ERP). Furthermore, managers of SMEs must be effectually included in interpersonal communication and support this communication among organisational members. Internal communication is a productive strategy to share ideas and debate decisions, enabling more innovative and creative decision-making, eventually ending in a better SCA strategy.

The first hypothesis of this study suggested a direct connection between OS (MIT, ITE, and ICN) and MCT. The presumption is affirmed, and OS positively affected the MCT. Senior executives have a powerful source of influence on organizational behaviours. Innovative and creative behaviour is no exception. Senior executives with high-quality OS support interpersonal communication and the utilization of sophisticated technology for analytical purposes. It is essential to the MCT as novel strategic thought and innovative business operations can be supported. Having a high level of OS will guide you to better MCT. From a literature perspective, inferences or prior literature referred to that OS can enhance a company's competitive advantage, and this can be achieved by presenting a novel product or service or even augmenting the preparedness of an organisation to face unsureness (Adams et al. 2019). OS also augments the employees' creativity, resulting

in better innovation potential for enterprises (Donate & de Pablo 2015). Therefore, for SMEs in Turkey to be more creative, they must effectively utilize the OS and its mechanisms. Having sophisticated technologies like Customer Relationship Management (CRM) will augment the innovative capacities of SMEs due to the information this software provides about the customers' wants and needs. Thus, it guides to additional creativity.

The third hypothesis of this research expects a positive connection between MCT and SCA. This prediction was affirmed true. Creativity is crucial for improving the SCA of companies in Turkey. Creative enterprises can emerge with a new product or service, addressing customers' anticipation. Creative enterprises also can lead the market in a developing market such as Turkey.

Further, the enterprises' creativity can decrease the operational cost of industrializing enterprises in Turkey because having a creative mentality will make the internal business operation more effectual and utilize technology to lessen the cost. Therefore, augmenting MCT among manufacturing SMEs in Turkey will guide to a better SCA. This illation conforms with the RBV, which states that the utilization of resources and capabilities of enterprises will have a significant increase in the competitive advantage and performance of these enterprises (Sandhu 2013). The literature also conforms with this finding. Researchers point out that MCT can play a necessary role in enhancing the sustainability of enterprises (Abdul Kohar 2013), (Belenzon & Schankerman 2015), (Mahmoud et al. 2016), (Stocker et al. 2022)

The following hypothesis is linked to the mediating role of MCT between OS (MIT, ITE, and ICN) and SCA. Inferences of the hypotheses examined revealed that MCT mediated the effect of OS on SCA. The mediation analysis results show that the MCT insignificantly mediates the relationship between MIT and SCA. It reflects that the managerial institution has not fully transformed into managerial creativity to activate sustainable competitive advantage for SMEs. SMEs in Turkey must reinforce the evolution of creativity because the MCT can illustrate part of the relation between OS and SCA. Creative strategy is crucial for accomplishing a competitive advantage. To be a sustainable enterprise and the first proposer in the market, there must be a productive strategy for ameliorating the competitive advantage and outliving in a highly competitive market. In this

study, MCT was measured utilizing tacit knowledge and specific training. In Turkey, SMEs must discover a method to elicit tacit knowledge among the organisational managers, particularly senior managers.

Moreover, efficacious training must be founded. Training needs analysis can be managed periodically to evaluate the requirement for training and design particular training courses to improve the capacities of SME managers. Thus, to take advantage of future opportunities, managers in Turkey are advised to enhance their innovation and creative capabilities to support their strategic decisions regarding long-term sustainability. These inferences conform with the RBV, and they also conform with the findings of prior literature (Akter et al. 2016), (Bashir & Farooq 2019).

This study has contributed to the literature on SCA, OS, and MCT. Studies related to the impact of these variables in developing countries are still restricted, and a contribution has been made by determining the role of OS on MCT and SCA and the mediatory role of MCT in this operation. Practically, the study can contribute to supporting the SCA of SMEs in Turkey and increase job opportunities and the economic evolution of the region. Hence, managers of SMEs can benefit from the results of this study in the sense that having an evolving OS will improve the MCT and the SCA of their enterprises.

7. Conclusions: This study was managed in Turkey. The findings were elicited from managers of manufacturing SMEs. The findings disclosed that OS significantly affects the MCT and SCA of manufacturing SMEs in Turkey. Further, the findings also revealed that MCT positively affected the SCA and mediated the effect of OS on SCA. Although the essential inferences of this study, some restrictions need to be addressed. The study is limited to the manufacturing SMEs in Turkey. Generalizing the inferences on other countries is probable with data collection from the countries. The findings are restricted to the variables involved in this study and the operationalization of these variables. For future work, it is recommended to replicate the study in various contexts and locations. A study in the service sector might assist in illustrating the practices of SCA, MCT, and OS in this sector.

Furthermore, a study in similar regions, such as the Middle East region, can also assist in comprehending the generalizability of the findings to other countries. Moreover, using other variables to predict the SCA is also

significant in elucidating the variation in these variables. Inter-organisational trust and uncertainty are crucial factors that might contribute to illustrating the variation of SCA. Thus, future work is recommended to compromise these variables. The considerable size of this study sample is relatively large and appropriate to the purpose of utilizing smart PLS. However, future work is recommended to augment the sample size to improve the generalizability of the inferences. This study contributes to the present body of knowledge by prospecting and testing a theory encompassing three distinct but interrelated components. It offers beneficial information that can be utilized to conclude the relationship between OS and SCA in manufacturing SMEs. Theoretical progress in the domain of sustainability may benefit from this. This study contributes to the evolving body of literature on sustainable evolution by providing fresh perspectives on MCT's function within the context of SCA. The study elucidates the significance of managerial expertise and creativity in applying effective strategic choices to accomplish SCA.

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