

Technological Capability, Innovative Human Capital and Organizational Sustainability: A Proposed Framework

Saadi, I. A. and Che Razak, R.

Abstract—Technological capability has emerged in the 21st century as crucially significant factor to achieve organization's various successes. Although numerous studies exist on technological capability the majority of existing literature did not address the effect of technological capability on organizational sustainability. In addition, current studies show that innovative human capital has not been studied as an influential variable in this relationship. The purpose of this paper is to contribute to the existing knowledge in the field of organizational sustainability by exploring the relative influence of technological capability including (research and development capability, human capital skill, and absorptive capacity) on organizational sustainability with the mediating role of innovative human capital, in manufacturing SMEs in Kurdistan region of Iraq. This paper offers a proposed conceptual framework based on a review of the literature. With the assistance of the proposed model, it is possible to view the links between variables while organizations will have the opportunity to learn how to enhance organizational sustainability through technological capability.

Index Terms—Organizational sustainability, technological capability, R&D capability, human capital skill, absorptive capacity, innovative human capital.

I. INTRODUCTION

Technological capabilities are the bases of a company's sustainable competitive edge, as the employees' capabilities comprise technological awareness, and production skills that are valuable and not easy to replicate by rivals [1]. There is no doubt, that technology has an ambiguous role in terms of environmental sustainability. This is because technology promotes enhanced eco-efficiency, which is defined as "the ratio between economic and environmental performance" [2], [3]. Moreover, technological progress made many things in business and provide more efficient, enabling value creation while significantly reducing resource consumption as well as allow the rise of a leisure class [4]-[6]. Thus, technology plays a significant role in organizational sustainability, as organizational sustainability aims to maintaining (or even increasing) the profitability and delivering value by lowering the environmental and social footprint of its activities and products [7]. However, technology alone is an insufficient factor unless there is superior technological capability which typically encourages greater creativity and the delivery of innovative products or services in new and attractive ways through employees innovation, which are of value to customers, and thus enabling a firm to achieve overall

product and service development [8]. Generally, technological innovation capability is perceived as a very significant source of competitive advantage [9], [10] owing to its causal ambiguity [11]. Thus, human dimensions play a significant role in building sustainability. As all innovation relies on a robust knowledge base and on the availability of human capital. Policies that are designed to improve or incentivize innovative capacity will positively impact innovations for organizational sustainability [12]. Accordingly, organizational sustainability should open the door to sustained competitive advantage by accumulating exceptional and firm-specific resources, in terms of skills and focus on advances in technology, which in contrast enhances a firm's ability to develop new products, services or for designing an operation process more rapidly and staying ahead as an innovative leader [13], [14].

This current study has been motivated by the need to address the issue of inadequate research so far done on technological capability by manufacturing SMEs especially in the Kurdistan region of Iraq in the management literature on sustainable development. This study is therefore an effort to balance literature by highlighting effects of technological capability factors: R&D capability, human capital skills, and absorptive capacity on the sustainability of manufacturing SMEs in Kurdistan region of Iraq, within the boundaries of Resource Based View.

A. The Problem Statement

Providing a clear and brief explanation of the problems that need to be solved in the study is the fundamental objective of any research. Generally, the problem statement of the present study could be considered as the lack of the actual technological capability and this adversely affects the manufacturing SMEs sustainability in the Kurdistan region. Furthermore, there is also the absence of studies that discuss organizations in general and the industrial sector in particular of the Kurdistan region and the factors that impact their sustainability [15]-[18]. According to Zeebaree and Siron [19], SMEs are facing many challenges in their struggle to survive as a business, whereby technological barriers are the main obstacle. After 2003 there was very significant improvement in the private sector of Kurdistan region of Iraq, but unfortunately the manufacturing sector continues to suffer the lack of local competitive advantage due to a generally weak sustainability strategy [20], [21]. This sector, especially the SMEs, is severely underdeveloped in respect of technology and appropriate knowledge to exploit the current industrial advances and production opportunities, leading to weak innovation, production process and strategy [18], [21]-[23]. This particular manufacturing sector is characterized by poor innovation capability which has weakened the ability of local products to compete with

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The authors are with the Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, 16125 Kota Bharu, Malaysia (e-mail: ibraheemalli1985@gmail.com, razlicr@umk.edu.my).

foreign rivals. Such a situation forces this region to rely heavily on imported goods, as reported by the Kurdistan Region Government's (KRG) official estimates [17]. Hence, this region shows a decline in the number of the manufacturing SMEs [24], and it can be concluded that the manufacturing SMEs in the Kurdistan Region are struggling to maintain and sustain their business. Following on the above described scenario, this study believes that the mentioned problem of the present decline of manufacturing SMEs in the Kurdistan region of Iraq must be translated into organizational sustainability which can be enhanced by means of maximizing technological capability complemented by innovation.

B. Objectives of the Present Study

- 1) To examine the relationship between technological capability and organizational sustainability. This objective breaks down into three sub-objectives as follow:
 - To examine the relationship between R&D capability and organizational sustainability.
 - To examine the relationship between human capital skills and organizational sustainability.
 - To examine the relationship between absorptive capacity and organizational sustainability.
- 2) To examine the mediating role of innovative human capital on the relationship between technological capability and organizational sustainability.

II. LITERATURE REVIEW

A. Organizational Sustainability: SMEs

An SME may in many ways be a “scaled-down” version of a large firm and this has been challenged in the literature, and there is general consensus that SMEs are not just “little big businesses” [25]. In fact, they have their own unique features that influence how they manage their operations [25]-[27]. This is in line with the suggestion that due to their particular nature, current organizational sustainability models have to be reconsidered to take cognizance of the unique SME situation in which they operate. Moreover, De Clercq and Voronov [28] emphasize the role and implications of sustainability in business practices and how they play a significant role in the entrepreneurial/SME domain, in that entrepreneurs have to acquire legitimacy by striking a balance between sustainability and profitability. At the same time, the researchers also consider the continuous challenge faced by SMEs or any new or growing operation in balancing profit and sustainability on an on-going basis.

However, Terziovski [29] who takes a resource-based view suggests that SMEs' performances will improve as they mirror more closely the larger manufacturing organizations with regard to the size of their intangible resources. He also notes the crucial significance of SMEs aligning themselves with their strategies of the larger manufacturing firms in terms of technology capability. This is because technology has been considered for a long time now, a major factor for SMEs to survive, grow and develop [30]. The rationale is that a higher level of technology capability will enhance the chances of SMEs' and counterbalance their higher

vulnerability in a globalized business environment and in an economy that has moved rapidly towards bring knowledge-based [31]. As SMEs need to constantly seize new opportunities to remain competitive, they must have the capacity to engage in developing new products and to innovate as a core process of “value creation” [32]. Furthermore, manufacturing SMEs in particular must constantly enhance their manufacturing processes if they are to achieve long-term sustainability [33].

B. Kurdistan Region of Iraq: SMEs Sustainability

Organizational sustainability is a key issue for SMEs in the industrial sector to stay competitive in the face of stiff market rivalry and adapt the modern strategies that can be implemented successfully in line with environmental and social concerns. This study adopts the definition of SMEs employed by the Ministry of Industrial and Trading of Kurdistan region government (MTIKRG), which is: “an enterprise that depends mainly on a specific craft with full-time employees not exceeding 100” [34]. Previously, oil revenue served as sources of funds for Iraq, but the current situation forces the Iraqi government to introduce Private Sector Development Strategy (PSD), 2014–2030 which facilitates the development of SMEs [20]. This strategy is a good move to facilitate the development of the economy of Iraq and reduce the country's heavy dependency on the oil revenue. In particular, a growing interest in the manufacturing industrial SMEs has been emerging in the Kurdistan region of Iraq since 2007, particularly, to invigorate the industry and solve the problem of unemployment [35]. The Center for International Private Enterprise (CIPE) is hoping that Kurdistan Region will take the step to provide the private sector organizations their role in development so they may attain sustainable development in a democratic environment and be the Market leader in the Kurdistan region of Iraq. Towards this end, the calls by SMEs to find and nurture sources of competitive advantage are vital for them to be sustainable and succeed. SMEs have attracted much attention because entrepreneurship plays an important role in stabilizing communities, and SMEs have been known as an important factor in supporting economic growth. It has been widely acknowledged that SMEs are the backbone of economies and drivers of employment growth in developed and developing countries [36]. Furthermore, the private industrial sector, especially SMEs plays a significant role to achieving notable economic outcomes and high income levels, which are sustainable for the long-term by way of production and export activities [37], [38]. Additionally, SMEs can efficiently incorporate new technologies that lead to the development and integration of other sectors of the economy [39].

C. Triple Bottom Line (TBL)

Sustainability is a contemporary social theme which has also permeated organizations in the form of Organizational Sustainability (OS). According to J Elkington and Van Dijk [40], the Triple Bottom Line (TBL) is a model that demarcates the OS, and defines it into three pillars: economic, environmental, and social. In 1997, the Triple Bottom Line (TBL) emerged as a sustainability measurement model that addresses social, environmental, and economic effects of

business operations [41]. The TBL also supports the notion of evaluating the pillars in terms of performance measures in a balanced form, according to the three pillars of equal importance. OS strikes a balance in its commitment to the internal and external development of the environment, economy, and society, thus, enabling the organization to survive and at the same time achieve a return on investment [42]. According to Henderson, Rodriguez et and Tsai *et al.* [43]-[45], notion of sustainable development (SD) includes economic, social, and environmental parameters and is now considered as key to the thinking of any individual or organization focused on economic development.

Previous studies have identified the measurement of these three pillars as in the economic dimension incorporates variables that are concerned with cash flow and the financial bottom line, which typically includes income or expenditures, taxes, job and market creation, long-term profitability employment, competitive position, and business diversity factors [42], [46]-[48], while, the environmental performance dimension comprises variables that quantify natural resources and determine the possible impacts on their viability, and this usually involves air and water quality, power consumption, natural resources, solid and toxic waste, and the utilization of land as well as a holistic approach to an organization's operations, products and facilities in terms of efficiency, waste, and cutting down or eliminating practices that negatively impact the earth's resources at the expense of future generations [42], [47], [48]. The social performance dimension refers to social variables such as the organization's employees in terms of education, equality, and accessibility to social resources, health care and well-being, quality of life, safety, communication channels, racism, and intolerance, and social capital [42], [47], [48]. It is crucial to realize that social capital is commonly understood as characteristics of a social organization including networks, social belief, and cultural traditions that promote mutual coordination and cooperation [49].

The ethical debate concerning OS is driven by the organization's intrinsic objective to earn profit for the shareholders [50]. The value to the shareholder is the bottom line that drives a business [51]. Pioneered by John Elkington [52], in his influential work, *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*, the TBL concept is a framework that assesses sustainability of industrial firms. The triple pillars of SD determine the logical and normative framework to which is applied the most the widely recognised definition of SD [53], [54], while, this study defines sustainability under the denomination organizational sustainability as "an adoption of business strategies and activities that meet the needs of companies and its stakeholders today while protecting, sustaining and strengthening human and natural resources that will be necessary in the future" [42], [55]-[58]. The TBL model was created for the organizational sphere and has gained wide acceptance by different authors [42], [47], [59]-[61], with empirical works in the area [62]-[65], and has been selected for this present work. Other authors however fail to cite the TBL, but instead categories the OS in similar pillars [66]-[68].

D. Technological Capability and Organizational Sustainability

In reviewing the literature for the present research, there was the opportunity to compile a summary of previous studies and gain a critical understanding of the variables, outcomes and approaches employed by earlier authors whereby numerous weaknesses were detected which limited the understanding of the impact of R&D capability, human capital skills and absorptive capacity in the context of technological capability on sustainability of firms. The three factors are expected to have a significant impact on organizational sustainability as they play an important role in RBV perspective, whereas in contrast RBV explicitly explains organizational sustainability [69]. Moreover, previous studies have acknowledged the significant effect of technological capability on economic growth, employee's productivity, environment, organizational strategy, sustainable competitive advantage, firm success, corporate social responsibility as well as organizational performance and sustainability [70], [71]. Technology resources today are valued as among a firm's most valuable resources that drive its technological prowess [72]-[74], and could comprise machinery, tools, miscellaneous equipment, knowledge, and skills that a firm possesses or has control of. Since this study adopts RBV as a main underpinning theory that affects organizational sustainability [75], skills and knowledge of technology are the main resources that lead to organizational sustainability. As Zahra & Kirchoff [70], adopted RBV's proposition and deliberated the significance of possessing and using exclusive and inimitable technological capitals as a way of attaining competitive advantage and growth. These exceptional and technological resources have been defined as "bundles of employees' skills and accumulated knowledge that enable firms to coordinate activities and make use of their assets" [72], [73]. Eventually, technological resources efficiently enable firms to be profitable while attaining sustainability [71].

E. Research and Development Capability

This study focuses on employee's knowledge gained from research and development capability in the context of technology toward the enhancement of environmental, economic, and social characteristics. With the increased competition among technology-based firms, the basis of competitiveness in these firms has shifted from tangible capitals and market supremacy to intangible knowledge and know-how [76], [77]. Furthermore, the creation of new knowledge is a firm-specific advantage that result in new income-generating prospects and empower firms to offer effective response to fast environmental changes [78], [79]. Thus, implementing R&D enhances the ownership of technology by the firms, which is translatable as the resources of a firm's knowledge and skills, considered as intangible resources which offers the capability to develop new projects to provide products and services, achieve market acceptance, competitive advantage, survival, and be financially successful [74], [80]. For survival and growth firms must be constantly aware of changing customer demands and preferences and have the ability to respond with the desired designs and range to meet customer expectations. Thus, firms determine novel technologies, apply innovation

to the integration of new and existing knowledge reconfigure its knowledge base for a novel product, service or for designing an operational process [14].

Previous studies observed that R&D capability and the outcomes empower employees to innovate and create novel technology as well as transform technology for the purpose of developing novel products, services and practices [81]. According to Robert & Jose [82], R&D is accepted as a form of investment in 'technical' capital that leads to the improvement of knowledge, which results in product and process innovation. The R&D capability of a firm has a relationship with technological development of a firm's knowledge base, especially when taking into consideration a firm's existing technology know-how to create a novel technology [83], [84]. Using various knowledge choices to integrate and recombine can result in different technological capabilities to produce various performance results, as well as to ensure a firm continues creating value in a rapid global transformation [85]. Hence, R&D capability is proposed as one of the main features that separate successful firms from failed ones [85], [86]. Several empirical studies have established the role played by R&D and technological capability as a positive predictor of a firm's sustainable competitive advantage and growth [72], [73], [74]. Moreover, studies like those of Ben-Zion, K. Clark, Griliches, Griliches, Guerard, Andrews, Hall, Lichtenberg and Siegel [87]-[92], reveal the same results that verify a positive correlation between R&D investment and firm growth. Thus, R&D and technological capability are considered important source and resources that induce growth that can result in creating sustainability (Chen *et al.*, 2009).

F. Human Capital Skills

The second factor of technological capability in the current study is human capital skills and their impact on organizational sustainability. The notion of internal resources as sources of corporate growth has been enjoying increasingly wider acceptance and justified HR's contention that human resources are of strategic importance to firm success [93]. In the RBV perspective, increasing recognition of internal resources as sources of organizational sustainability has accorded legitimacy to human capital's claim that people gave strategic importance in firm success [69], [94]. Patrick *et al* [95], stated that rare, invaluable, unique, and non-replaceable resources can be the basis of sustainability. Accordingly, technology is difficult to be protected by patent laws, technological capabilities are open to replication and copying by competitors and this will weaken a firm's appropriability regime, and reduce firm's competitive advantage. This issue can be avoided by embodied technological skills, because complex and tacit nature of technological skills are not easy to be copied as they are mainly embedded in the routines and practices of the firm [1].

Barney [96], defines HR as "the totality of human experience, knowledge, judgment, abilities and skills, risk taking tendency, and wisdom of individuals that contribute to the success of a firm." Human capital skills are a crucial factor for the combination of economic competitiveness and sustainability. Technology alone cannot continue to solve global challenges that encourage shifting towards a greener

society without an effective role of human capital skills [97]. Firms which have proved that they are capable of practicing cross-functional management (socially complex skills) will have the ability to accumulate the resources required for product stewardship more rapidly compared to those with no such prior capability [98]. Moreover, few empirical studies have offered evidence that human capital skills are a crucial factor for economic competitiveness, sustainability of greener society, and innovation [97], [99]-[101]. As a result, most new firms established by technical-skilled individuals are technology-driven, which in itself is an advantage and would have the potential for rapid sustainable growth [100].

G. Absorptive Capacity

Absorptive capacity as the third factor of technological capability has received limited attention in the context of technological capability and its relationship with organizational sustainability. Firms have their respective specific technological capabilities, namely patents owned, number of technical personnel, or the amount of technical knowledge in store [102]. As the focus of this study is on the sustainability of the firms, absorptive capacity from RBV perspective frequently brings together the required knowledge to form the basis of a competitive advantage and success: to be valuable, rare and difficult to replicate and replace by rivals. Moreover, absorptive capacity is defined as "a firm's capability and qualifications, by which they acquire, assimilate, transform and exploit new valuable external knowledge and technological opportunities from outside and redefine a product portfolio based on technological opportunities created within a firm to promote sustainable opportunity" [103]-[106]. Firms are expected to focus on the accumulation of resources and competencies, which would enable them to achieve a more developed technological capability compared to their competitors.

Mathews [107], indicated three steps involved in acquiring resources: search, acquire, and absorb. He mainly discussed the external acquisition of technology and know-how, and noted that absorption was the most challenging part of the entire process, which required the firm to be capable of integrating the resource with the firm's existing resource base. In particular, it identified the potential beneficial knowledge, such as technical knowledge, which must then be transferred from the source and edited so that it is understandable to the firm for transformation into specific product designs that constitute product innovation [108]-[110]. As such, those firms whose employees' possessed higher technology absorptive capacity would be more successful in their external acquisitions, incurring less ex-ante costs in evaluating and selecting alternatives and will be in a better position to take advantage of the technology learned to a greater extent [111], [112]. Furthermore, technology absorptive capacity is dynamic and can affect the firm's potential for the creation and deployment of the knowledge required to develop other organizational capabilities, including organizational learning and organizational innovation, which provide the firm the fundamentals for the development of competitive advantage that produces performance excellence [96], [113]-[115]. On the other hand, some experiential studies have proven the significant effect

of absorptive capacity on organizational performance, environmental attitudes, green innovation, and innovation and performance [111], [116], [117]. Technology absorptive capacity offers firms the capability to adapt and change in highly dynamic environments [118].

H. Innovative Human Capital

Innovative human capital is a new term in the literature. A previous study by [119] has widened the normal measure of human capital through the development of a unique and extensive notion of Innovative Human Capital and emphasizes its impact on small firm innovation and therefore growth. Growth and success have a positive relationship with human capital, while innovation of human capital is the key to this success [120]. Innovation plays a significant role in firms' survival [121]. This study used innovative human capital as the mediating variable in the relationship between technological capability and organizational sustainability among SMEs in the Kurdistan Region of Iraq. The reason behind this choice was the weak innovation capability among employees as mentioned in the Problem Statement, and in previous studies, makes it clear that innovative human capital greatly influence the relationship between TC and OS [122]-[125]. Moreover, empirical studies by [8], [126]-[130] and theoretical studies by [131], [132] have proven the importance role of innovative employees in influencing the sustainability and performance of a firms. Further, Raymond and St-Pierre [133] argued in their empirical study that innovation has long been accepted as the major factor in the survival of SMEs. On the other hand, technological capability characteristically allows firms the opportunity for the creation and delivery of innovative products or services [8].

The current study focused on tacit knowledge and training to explain innovative human capital, due to their importance in identifying the level of human capital innovation. As for tacit knowledge, it is implicit, difficult to conceptualize and subjective, and is part of an individual's experiences; it is evidenced in behavior or actions, and is frequently very ambiguous [134], [135]. In this vein, Von Krogh *et al* [136], suggested that tacit knowledge is in general the primary source of a firm's innovation. As such, tacit knowledge is the core of innovation and competitiveness [137], [138]. The rationale underlying this statement is that new ideas emerge from creativity and that, especially at the beginning the creative process, creativity is related to individuals' ideas derived from tacit knowledge [139], [140]. Hence, firms are required to develop knowledge and capacities that make them innovative, which in consequence, leverage their performance up [141]. Mincer [142], notes out that employees' knowledge alone is insufficient unless the role of training take place in the labor force. In designing employees' training and development programs, in today's economy, where knowledge is a central part of the economic system, the identification of training and development needs in creativity and innovation is crucial [143], [144]. Becker [145], elucidates the traditional concept of investing in capital as being inclusive of training expenditures thereby producing human capital rather than financial or physical capital.

III. THEORETICAL PERSPECTIVE AND CONCEPTUAL FRAMEWORK

The current issue attempts to determine the effect of technological capability factors on the organizational sustainability of Manufacturing SMEs. The current study leans on the RBV theory that can be used to explain the reliance on internal resources of the firm. The main focus of the RBV perspective is to establish the ability of organizations to develop and attain competitive advantage, where knowledge and skills are the major sources that lead to building up competitive advantage [146]. Accordingly, Stuart [98] extended the Resource-based View Theory to accommodate the challenges due to sustainability. RBV permits an examination of the role of firm's specific factors in driving corporate, social, and environmental responsiveness. In particular, social and environmental capabilities resulting from these resources are difficult to replicate by competitors. The resource-based view therefore evolved on the grounds that businesses will be now even more constrained by sustainability risks and opportunities [98]. On the basis of the RBV's proposition, Zahra & Kirchoff [70] discussed the significance of possessing and using unique and inimitable technological resources to achieve competitive advantage and growth. Additionally, RBV is a particularly good lens for looking at innovation as one of the most crucial and sustainable sources of competitive advantage for firms due to its context-specific nature [147]. Thus, technological skills and knowledge together with innovation capability is the most significant sources of competitive advantage, and thereby sustainability [9], [10] owing to its causal ambiguity [11].

A. Proposed Conceptual Framework

The figure of conceptual framework illustrates the relationship between technological capability and organizational sustainability with the mediating role of innovative human capital.

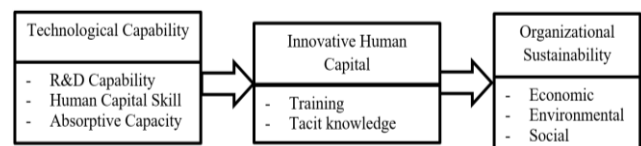


Fig. 1. Conceptual framework of present study.

B. Variables and Measurement

1) Organizational sustainability

Organizational sustainability can be measured in the current study by using a multi-dimensional measuring method. In this study a seven-point Likert scale is used. This variable could be measured using fourteen items as follows: sales profitability, competitive advantage, productive capacity, cost saving, product quality, energy consumption, non-renewable resources usage, environmental impact, solid waste, equal opportunity policy, relationships with the community, work safety, collaboration policy, and health care [148], [149].

2) Research and development capability

R&D capability has been conceptualized in this study as a generator that enhances technological knowledge of the firm.

This variable can be measured using four items: (i) The company has a continuous investment in research and development activities; (ii) The company systematically researches technological development trends; (iii) The company has good mechanisms for transferring technology from research to product development; (iv) The company has valuable research skills for its total employees [150].

3) Human capital skill

Human Capital Skill has been conceptualized in this study as a resource that drives technological capability towards excellence. This variable can be measured using four items: (i) The company has accumulated strong technological skills; (ii) The company is skillful in applying new technology to problem-solving; (iii) The company frequently provides on-job training to improve the technological skills of employees; (iv) The company is perfectly capable to upgrade technology standards [151].

4) Absorptive capacity

Absorptive Capacity has been conceptualized as a dynamic that affect the firm's potential for the creation and deployment of the technological knowledge required. This variable can be measured using five items: (i) The company searches consistently for relevant technological information concerning the industry; (ii) The company expects that the employees deal with technological information beyond the industry; (iii) The company has a quick technological information flow among employees; (iv) The company has the necessary skills to apply new acquired technological knowledge; (v) The company has considerable competencies for technological development [111].

5) Innovative human capital

Innovative human capital has been conceptualized as a human capital and its essential part of innovation effectiveness. This variable could be measured using eight items as follows: training programs encourage the generation of new ideas, training programs that generate creative collaboration, training builds self-efficacy for creativity, defines training needs based on the skills required for innovation, employees' knowledge gained from past experiences, employees frequently share their past experience, employees' knowledge used in the company is highly complex, and employees know-how is the source of innovation [135], [152], [153].

C. Research Hypothesis

The hypotheses of the current study are the follows:

Hypothesis 1: Technological capability has a significant positive effect on organizational sustainability. This hypothesis breaks down into three sub-hypotheses as follow:

Hypothesis 1a: R&D capability has a significant positive effect on organizational sustainability.

Hypothesis 1b: Human capital skills has a significant positive effect on organizational sustainability.

Hypothesis 1c: Absorptive capacity has a significant positive effect on organizational sustainability.

Hypothesis 2: Innovative human capital mediates the relationship between technological capability and organizational sustainability.

IV. CONCLUSION AND CONTRIBUTION

The aim of this study is to conceptualize the technological capability that purposely will impact organizational sustainability in manufacturing SMEs, with the mediating role of innovative human capital. The adoption of sustainability is challenging as a company frequently integrates social and environmental concerns into business operations voluntarily [154], and understanding the relative influence of technological capability factors could ultimately help ensure sustainability. For the Kurdistan Region of Iraq there is still much to be achieved by firms in order to adopt technological advancements toward better sustainability. However, a quality research can be interpreted as a process by which important research questions are converted into answers that contribute to the existing theory. Studies have to provide an extension of an existing theory or refine it. Organizational sustainability is a concept blessed with abundant literature but regrettably not well explored. RBV theory is a dominant paradigm to explain the conceptual framework of this study, as it suggests that internal intangible resources such as technological skills and knowledge as well as innovation capability are the predictors of organizational sustainability. Thus, the study bridges the gap in the literature by proposing a new model for the very first time and thereby contributing in the existing body of knowledge.

Furthermore, the insights of this study are expected to contribute theoretically by refining the scope of the theory by taking into consideration the effect of technological capability on organizational sustainability with the mediating role of innovative human capital. At the same time, in terms of practical implications the study would help Kurdish policy makers to improve or restructure existing policies and formulate new policies to improve SMEs' sustainability and at an organizational level, the SMEs can utilize the findings of the study for organizational sustainability-related decision making. Moreover, various managerial implications can be obtained from the proposed conceptual framework, as is the case of organizations seeking to enhance their sustainability strategy should be mindful of the central role that technological capability plays. Lastly, the study is expected to enrich the existing sustainable development literature in context of the Kurdistan region of Iraq. In any research, all existing constructs from the literature cannot be included in a model. As for this study, only certain selected constructs have been used with regard to the issue of the study. Thus, future researchers are encouraged to add more constructs in this model to disclose more angles of determinants affecting organizational sustainability. Furthermore, the conceptual model of this study could also be adapted or adopted for empirical studies in relevant research areas, particularly in the Kurdistan Region context which could offer further insights into organizational sustainability which is of immense significance both theoretically and practically in the 21st century.

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Ibraheem A Saadi is a PhD candidate at Universiti Malaysia Kelantan. He achieved his master degree (Science management) from Universiti Utara Malaysia. His current research interests are in the area of sustainable development, innovation, technological capability and organizational performance.

Ibraheem A Saadi was with Cihan University

as a lecturer in Department of Business Administration.



Razli Che Razak is a professor of Universiti Malaysia Kelantan. He achieved his Ph.D (Operations Management) from Universiti Sains Malaysia. His current research interests are in the area of quality management, service quality, online purchasing behavior and organizational performance.