

Article

The Impact of Entrepreneurial Business Networks on Firms' Performance Through a Mediating Role of Dynamic Capabilities

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Abstract: This precise study is the first to perform a focalized investigation on the relationship between entrepreneurial business networks and sustainable performance of small firms. The entrepreneurial business network is a multifaceted business network of business firms, working together to achieve business objectives. Business relationships and firm aggregations are the main categories of entrepreneurial business networks, which help small and medium-sized enterprises to become more dynamic, innovative and competitive. The entrepreneurial business network is a networking, which provides a platform to build business relationships, identify, develop or act upon economic opportunities, share information and seek potential business partners for ventures. However, few studies have sought to understand the association of entrepreneurial business network (EBN) and firms' sustainable performance in the context of Pakistan. This investigation aims to examine the relationship between EBN and small firms' sustainable performance by applying the Smart PLS-SEM software V-3.2.8. This study explores how dynamic capabilities mediate the relationship between entrepreneurial business network and sustainable performance of small firms. The data received reports on small firms, manufacturing surgical instruments. The findings indicated that the entrepreneurial business network had a significant positive relationship with dynamic capabilities, which in turn presented a positive relation to a sustainable performance of small firms. By developing sustainable EBN, small firms can achieve sustainable performance by implementing dynamic capabilities in a competitive environment. The results affirmed that highly entrepreneurial firms showed a tendency to create a business network for achieving sustainable performance. The results also revealed that firms using business networks and dynamic capabilities efficiently; achieved their sustainable performance. The findings indicated that the study proposed a holistic and systematic model to achieve sustainable performance through firms' dynamic capabilities. The generalizability of these findings provides useful insight and direction for future studies in Pakistan.

Keywords: entrepreneurial business network; sustainable performance; small firm; dynamic capabilities; surgical products

1. Introduction

In the prevailing competitive and challenging international economic situation, a viable and dynamic small and medium enterprises (SMEs) sector is essential to the economic progress of the respective country [1]. Similarly, small and medium firms are considered as the engine of growth and play a significant part in creating economic development [2]. In an earlier study, Hashim et al. described that mostly countries rely on the performance of small and medium-sized firms for the growth and uplift of the economy [3]. However, business firms face uncertainty and challenges in the competitive business environment, and unfavorable circumstances in recent years have raised the challenges to improve the performance of small firms and SMEs [4]. Small firms and SMEs emphasize the main objective to secure the competitive advantages by attaining sustainable business growth [5]. Unfortunately, small businesses face a high rate of failure worldwide. Previous literature indicated that almost 40% of firms face failure during the first two years of their business startups in various countries worldwide [3]. In the same manner, researchers have strongly argued that small firms' failure rate is also higher in developing countries than in the first world nations [6]. The environment of doing business in the ecosystem industry of Pakistan is challenging and competitive, and the business environment is neither ideal nor favorable for small firms, and other SMEs [7]. Small firms and SMEs have to adopt the best utilization strategy of their available resources to ensure firms sustainable growth in challenging and competitive business environment as they face challenging and competitive business environment and uncertainty in the business industry in Pakistan [8]. These unfavorable circumstances encourage the small and medium-sized firms to overcome the unhealthy business environment in achieving their sustainable business growth [9].

The entrepreneurial business network is a multifaceted business network of business firms, working together to achieve firm business objectives [10,11]. These objectives typically are operational and strategic, and business networks adopt it based on their role in the competitive environment in the market [12]. There are two central categories of entrepreneurial business networks namely business associations and business firm aggregations, which help small and medium-sized enterprises to become more dynamic, innovative and competitive [13]. An entrepreneurial business network is the socioeconomic business activity and a platform by which business executives and entrepreneurs meet with each other to discuss available business network opportunities. The entrepreneurial business network (EBN) also provides a platform to build relationships, identify, develop or act upon opportunities of business, share information and seek potential business partners for ventures [14]. The entrepreneurial business network is a business social networking, which helps business people to connect and communicate with other entrepreneurs and managers to expand business interests by forming mutually beneficial business relationships [15]. An entrepreneurial business network is a way of leveraging your business network and personal networks and relations to help bring you a regular supply of new business opportunities [16]. The leading firms are nowadays gaining competitive business advantages through networked business models and tapping into talent from external sources to increase their growth [17]. Rather than implementing rigid "built-to-last" processes, business firms are now constructing additional fluid "built-to-adapt" business networks in which each member firm focuses on its differentiation, relies and trusts increasingly on its business partners, suppliers, retailers and consumers to provide the rest [18]. The entrepreneurial business network is one of the strategically essential resources, which permits small firms to grow in a dynamic and competitive business environment. Entrepreneurial business networks are contacts of small business owners and SMEs with other individuals or firms to obtain and share information and resources [19].

Small and medium-sized business firms set up the long-term entrepreneurial business network to strengthen and enhance their dynamic capabilities in a competitive business environment [16,20]. The survival of small firms and small and medium enterprises SMEs depend on their business performance, which is associated with its economic growth and vice versa [21]. The growth and sustainable performance of the small firms and SMEs do not rely on the outcome of a particular factor; however, it relies on the available resources and the combination of its dynamic capabilities, which fit

all these factors together [22]. Minai, Ibrahim and Law [23] also stated that entrepreneurial networks are an intangible resource, which increases the efficiency of the small firm and SMEs. Scholars believed that entrepreneurial-network (EBN) is helpful to the entrepreneurs and small and medium-sized firms and enterprises might receive potential business benefits from business networking, such as an exchange of relationships, the latest information and the value-added credibility [24]. However, it is a significant point to note that business networks are not static; instead, they are dynamic. The business network power determines the success of a small firm and its survival as a new venture or current business operation. Entrepreneurial networking contributes and leads to business growth [25]. Thus, to encounter a fiercer business competition, it is critical for small firms to manage business networks for their growth and profitability [26]. Therefore, it is one of the motives of this study to discover the impact, which might have on entrepreneurial networks and it could influence the sustainable performance of the small firms' [27]. Thus, small and medium-sized firms prefer to act as competitive by strengthening the entrepreneurial business network for their survival and growth in a specific era of an uncertain business environment [28]. However, the existing body of literature support and evidence based on the resource-based view, small and medium enterprises achieve growth and sustainable performance through their resources and dynamic capabilities [29].

Typically, small and medium-sized enterprises face a challenging and competitive business environment to maintain sustainable performance to pursue sustainable growth by utilizing their entrepreneurial business networks [30]. Generally, small and medium-sized firms practice resources-based view guidelines for establishing and managing their dynamic capabilities to achieve sustainable performance [31]. Small firms and enterprises dynamic capabilities are the higher order capabilities that reconfigure, integrate and coordinate the specific resources to face the turbulent, challenging and competitive business environment [32]. Thus, dynamic capabilities play a central role to combat the rapidly changing and competitive environment, which influences SMEs and small firms' sustainable performance [33]. However, previous studies just focused on the acquisition of network resources, business networks density and its size [34,35]. The existing body of scientific literature lacks the studies examining the relationship between entrepreneurial business networks (EBN) and sustainable performance of small firms with the mediating role of dynamic capabilities.

This proposed study aims to address the gap of earlier studies by considering the dimensions of entrepreneurial business networks (entrepreneurial supplier interactions, entrepreneurial customer connections and entrepreneurial competitors' interactions). This study offered the persistent effort to address the gaps and limitations identified from the previous studies in a connection of entrepreneurial business network, sustainable performance of small firms through dynamic capabilities of the firms. Furthermore, Pavlou and El Sawy, established the model of dynamic capabilities with four dimensions sensing/identifying, integrating, learning and coordinating [36]. However, Singh and Rao identified the dimensions of dynamic capabilities including combining capability, learning capacity, reconfiguration capability and alliance management capability [37], and expanded the model of the dynamic capabilities of Pavlou and El Sawy [36]. Two dimensions are not available in each model, and that is the reason for combining both models to fill the likely knowledge gap in the existing body of literature. Therefore, this study hypothesizes the logical reasoning on the relationship between entrepreneurial business networks and small firms' sustainable performance. The model of this study theorizes that entrepreneurial business network (EBN) enhances the sustainable performance of small firms and its dynamic capabilities mediate the relationship between EBN and small firms' sustainable performance. However, an in-depth review indicated that the existing body of literature lacks this gap and there are some prominent limitations. Past literature evidenced that most of the studies central emphasis was on a large sample size.

2. Theoretical Background and Hypotheses Development

2.1. Relationship between Entrepreneurial Business Network (EBN) and Sustainable Performance of Firms

Based on the prevailing body of the literature on the network, various scholars have described the term “entrepreneurial business networks” interchanging with “networks,” “business networks,” “networking” or “entrepreneurial networking.” [25]. Within the context of this study, we will use the entrepreneurial business network (EBN) as a standard term that is developed and performed by small firms and small and medium enterprises’ owners/managers. Thus, various factors are crucial and play a key role in developing the sustainable growth of small firms. Past studies have recognized the entrepreneurial network as the most critical area, which requires serious attention and consideration specifically at start-ups and growth phases of the small firms. The business networking power might determine the survival and the success of a small firm’s ventures; either it is a new or existing business. Numerous scholars believed that business networking provides privileges such as added credibility, trustability, usefulness and the latest information and awareness, and provides a platform for exchange and building relationships. Business networking also permits small firms and SMEs to gain access to different opportunities and resources, which are essential and contribute to the small and medium-sized firm’s sustainable growth [23]. Eventually, scholars have described entrepreneurial business network (EBN) as the significant and prominent support while setting up a new or running current business, and EBN networks provide backing to entrepreneurs at all stages such as gaining information, business development and the sustainable growth of small firms [38]. Typically, entrepreneurs develop business networks, and contacts for building their entrepreneurial network, example includes participation in business conferences, social events and business meetings. Thus, entrepreneurs’ recognize the network as a mixture of business friendships, development of new or existing commercial opportunities and kin ties. Based on literature evidence and the underlying assumptions associated with entrepreneurial business networks, the literature indicates that entrepreneurial business networks (EBN) and business contacts stimulate and enhance the opportunities of entrepreneurship [39,40]. Entrepreneurial business network (EBN) develops significant business ties for the small firms, and these networks are substantial sources of inaccessible and non-imitable for these small firms and small and medium enterprises. These entrepreneurial business networks formed through interactions with suppliers, small firms and SMEs competitors and customers provide benefits [41]. The entrepreneurial network might benefit from reducing the costs of the business transaction; it can obtain the strategic assets, core resources and facilitates a small firm’s dynamic capabilities and learning through innovative techniques. By the support of the above literature, this study assumes that the entrepreneurial business network offers a variety of business benefits to entrepreneurs, which brings added value to small firms to support and strengthen the competitiveness in the competitive business environment [26]. From the theoretical perspective, the central concept of the resource-based view is that small firms and SMEs make progress and compete in the competitive markets on building blocks of their resources and capabilities [29,42]. Entrepreneurial business networks are intangible resources, and small firms take advantages of these resources in increasing sustainable performance in a very competitive business environment [25]. Besides, theoretically, the resource-based view (RBV) describes the relationship between the entrepreneurial business network (EBN) and a small firm’s sustainable performance. Besides, reviews of the existing body of literature, numerous past studies affirmed the significant statistical relationships among business networks and small firms and SMEs sustainable performance [43–45]. In the previous investigations, Breat (2009), Bratkovič Kregar & Antončič (2016) and Palalić, Dana and Ramadani (2018) identified a significant positive relationship between business networks and sustainable performance of small firms [46–48]. Gronum, Verreynne and Kastle (2012) recognized that the entrepreneurial business network influences significantly the achievements of small business firms [49]. In the same way, Minai et al. [23] claimed that business firms necessarily need business networks for sustainable performance. Numerous researchers debated that EBN may provide positive and meaningful business relationships. However, numerous empirical past studies

examined the relationship between business networks and firms' performance and they reported mixed results. Several scholars tried to explore the relationship between business networks (EBN) and a small firm's survival or sustainable performance in the previous investigations; however, they could not find such relationships [50–54]. Aldrich (1994), Kregar (2014) and others stated that there is no significant positive relation that exists between business networks and the sustainable performance of SMEs or small firms [39,40,55,56]. Similarly, Golden and Dollinger (1993) and others also could not explore the findings to prove the relationship between business networks and sustainable performance of firms [57–59]. Therefore, there are mixed results and inconsistent findings on the relationship between business networks and small firms' performance. Rare studies are observing the ties that entrepreneurial business networks might influence the sustainable performance of small firms and SMEs. Therefore, this concept is questionable, equivocal and it requires more investigations to explore the potential influence of entrepreneurial business networks on a small firm's sustainable performance. Accordingly, the study has proposed the following hypothesis to test the relationship between the entrepreneurial business network and a small firm's sustainable performance.

Hypothesis 1. *The entrepreneurial business network has a significant positive relationship with a small firm's sustainable performance.*

2.2. Role of Dynamic Capabilities (DCs) of Firms—Mediator

The first-order capabilities of small firms and small and medium enterprises are its dynamic capabilities because these abilities and competencies purposefully change a small firm's product, scale, production process and marketing activities [60–62]. Scholars believed that when a firm has been properly equipped with dynamic capabilities, then the business entity might reconfigure, build and integrate its available internal resources besides external firm-specific available resource/capabilities in responding to the turbulent business environment [63,64]. Supposing the organizational capabilities or skills concerned with the efficient exploitation of available resources, and the dynamic capabilities describe as to the efficient execution and exploration of new prospects [65,66]. The organizational theory described dynamic capability as the competence of an organization or small firm to purposefully adopt the firm's resource base [67]. In 1997, David Teece, Gary Pisano and Amy Shuen defined this concept in their article, *Dynamic Capabilities and Strategic Management*, as small firms' and SMEs' capability to build, integrate, develop and reconfigure internal and external competencies to address the rapidly changing competitive business environments. The term refers to the plural form used, dynamic capabilities, emphasizing the competence, which helps small firms and the SMEs to react adequately, efficiently and timely to external changes that require a combination of multiple capabilities [67,68]. Thus, small firms and SMEs systematically develop, build and change its operational processes through dynamic capabilities, which are the learned and stable patterns of behavior, and in turn, the small firms can perform effectively [69,70]. Consistent with the above arguments based on previous literature; dynamic capabilities refer to a coordinative mechanism of small firms and SMEs, which provides a platform to enhance capacity to tackle the changes taking place in a competitive business environment.

The firm usually achieves this aim by reconfiguring, integrating and coordinating with available resources to build, uplift, improve and sustain superior performance [10,32]. Wang et al. (2014) explained that dynamic capabilities support small firms to achieve enhanced sustainable performance [31]. However, this proposed study incorporated the additional and inclusive classification, which suited the predictability based on the previous literature. This prospective study conceptualized dynamic capabilities, through sensing, learning, integrating, building, managing business alliances, configuring and coordinating with the available resources to handle the changes taking place in the competitive business environment. In contrast, the considering theoretical foundation, "Resource Base View (RBV)" highlighted that capabilities are fundamental to small firms and SMEs' performance [29]. Similarly, Teece (2007) identified that the dynamic capabilities view (DCV) explained how small firms

incorporate their dynamic capabilities and competencies to develop business opportunities, develop, build and sustain the advantages over the other small firms and small and medium enterprises by reacting to the changes in the competitive business industry [71]. However, the relationship between small firms' dynamic capabilities and sustainable performance show the linkage with the resource-based view (RBV) and dynamic capabilities view (DCV). The early conceptual discussion revealed a direct relationship between small firms' dynamic capabilities and their sustainable performance. Previous studies identified a direct relationship between dynamic capabilities and sustainable performance of the small firms [72–74].

The intelligent small firms and SMEs will keep the progress going to react and respond to the changing demands of the turbulent business environment for successful business operation. Eriksson (2014) stated that the apparent antecedents of dynamic capabilities related to inter-firm relationships, entrepreneurial business networks (EBN) are the feature as the influential antecedents of small firms' dynamic abilities [75]. Numerous researchers have argued and debated the significance of dynamic capabilities and described how business networks influence dynamic capabilities [75–77]. Hence, entrepreneurial business networks provide a variety of benefits to small firms and SMEs, which in turn, brings core capabilities to boost up the sustainable performance [26,78]. Based on the existing body of scientific literature, scholars have identified the dynamic capabilities of the firms as a potent mediator [21,79]. The previous literature indicated that small firms' dynamic capabilities could perform a mediating relationship between available resources and sustainable performance of the firms [80]. Lin and Wu, (2014) described that dynamic capabilities are a transformer of available resources of the firms and typically, small firm and SMEs convert these resources as their tools to achieve enhanced sustainable performance [74]. Despite anything to the contrary, this proposed study performed the focalized investigation on the relationship between entrepreneurial business networks (EBN) and small firms' sustainable performance through the mediation of dynamic capabilities. The study also examined how dynamic capabilities mediated the relationship between EBN and sustainable performance of the small firm. This gap yet needs attention for affirmation by applying empirical methods. Therefore, this proposed study developed a hypothesized framework to examine and address the research gap between entrepreneurial business networks and the small firm's sustainable performance. This study investigated the empirical relationships between the latent constructs of the research framework.

Hypotheses of the study:

Hypothesis 1. *The entrepreneurial business network has a significant positive relationship with a small firm's sustainable performance.*

Hypothesis 2. *The entrepreneurial business network has a significant positive relationship with the firm's dynamic capabilities.*

Hypothesis 3. *Dynamic capabilities (DCs) have a significant positive relationship with a small firm's sustainable performance.*

Hypothesis 4. *Dynamic capabilities (DCs) mediated the relationship between the entrepreneurial business network (EBN) and a small firm's sustainable performance.*

2.3. Model of a Proposed Research Study

This study is the first to perform an investigation on the relationship between entrepreneurial business networks (EBN) and the sustainable performance of small firms and SMEs with a mediating role of dynamic capabilities. It examined how dynamic capabilities of the small firm interceded the relationship between entrepreneurial business networks and sustainable performance of the firms. This proposed study incorporated three factors to present the designed model. In this

model, the entrepreneurial business network is the independent variable; performance of small firms' capable of being sustained is a dependent variable while dynamic capability is the mediating variable. Here, dynamic capabilities (DCs) represent the mediating relationship between entrepreneurial business networks and sustainable performance of the small firms.

Figure 1 given below is presenting a research model after an in-depth literature review as already mentioned above to explain the model exhibited below.

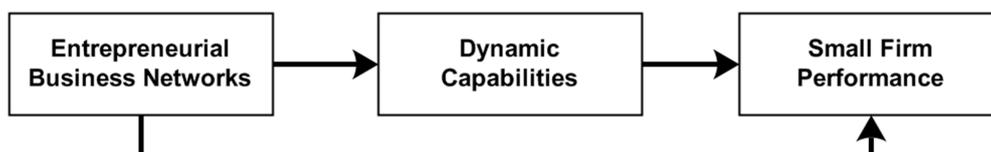


Figure 1. The proposed study model with its selected variables: Entrepreneurial network, small firms performance and dynamic capabilities.

3. Research Methods

3.1. Research Instruments

The model of this proposed study consisted of three factors to present its framework. In this model, the entrepreneurial business network is the independent variable; sustainable performance of small firms is a dependent variable while dynamic capability is the mediating variable. This study selected survey items from previous studies with suitable adjustments in some mandatory sections, (Appendix A shows a questionnaire). This model measured entrepreneurial business networks (EBNs) construct with the 12-item scale developed by Huang, Lai and Lo [26]. The second-order construct is an entrepreneurial network, and it consists of three complementary dimensions of first-order, e.g., interactions of entrepreneurial suppliers, entrepreneurial customers' interactions and business competitors' interactions [26]. Huang et al. (2012) confirmed the 'reliability' of entrepreneurial business network (EBN) measures and the Cronbach alpha value (reliability) was higher than 0.70, which indicated a reliable and sound measurement of entrepreneurial business network. This study adopted 32 items from Rao and Singh (2016) and Pavlou and El Sawy (2011) to measure the dynamic capabilities construct [36,37] as presented in Appendix A. This study measured dynamic capabilities as a second-order construct, and it has six parallel dimensions with first-order; sensing skill, learning the ability, integrating capacity, reconfiguration capability, alliance management capability and coordinating capability. Moreover, Rao and Singh (2016) and Pavlou and El Sawy (2011) described that the "reliability" of the dynamic capabilities measures value should be higher than 0.70 and it will indicate an appropriate level of reliability for construct [36,37]. We have selected items from Spillan and Parnell (2006) to measure the sustainable performance of small firms [80]. Spillan and Parnell (2006) reported that the measures of sustainable performance provided a satisfactory level of validity and reliability [80]. The measures of the Cronbach alpha coefficient revealed reliability 0.761, and it indicated a reliable, sustainable performance of small firms. This study adopted a Likert scale based on five-point, stating 1 for "strongly disagree" and 5 for "strongly agree" to measure selected variables.

3.2. Designing a Questionnaire

We designed and distributed the revised items of the selected variables of a self-structured survey among the respondents of the targeted population for collecting the desired data through a random sampling method. We well informed and trained respondents about the study purpose, and assured the respondents that all the data received is strictly confidential. The survey also obtained the respondents' general profile information, such as age, gender, education level, profession and residential areas. The study invited respondents from the Sialkot Chamber of Commerce and Industry (SCCI) and Surgical Instruments Manufacturer Association of Pakistan (SIMAP). The questionnaire utilized a five-point Likert-scale requiring individuals to rate their agreement levels from strongly disagree = 1

to strongly agree = 5 (strongly disagree = 1, disagree = 2, agree = 3, neither agree nor disagree = 4 and strongly agree = 5).

3.3. Size of the Targeted Population Sample

The sample size of the population comprised of the correct responses and focused strictly on the Sialkot Chamber of Commerce and Industry (SCCI) and Surgical Instruments Manufacturer Association of Pakistan (SIMAP). The respondents were required to be educated at least to a degree level. The researchers omitted uneducated people as they were hesitant to answer questions during the pilot test, and they were unaware of the survey's importance. We educated and trained the respondents about the survey's purpose, and the researchers gave the respondents 14 days to understand and fill out the survey.

3.4. Data Processing of the Questionnaire's Feedback

After receiving the input from the targeted respondents, the researchers checked and screened all the questionnaires. Based on the completed and accurate responses, the researchers collected 508 adequately filled out surveys and scrutinized them to confirm the data accuracy. This study processed the data received and analyzed it by applying the analytical tool Smart PLS 3.2.8. In the final step, the statistical analysis provided the interpreted results as a useful insight and valuable evidence for the evaluation of the underlying factors.

Figure 2 presents the three phases of the data collection procedure. In the first step, we selected the entrepreneurial business network (EBN) as an independent variable, which influences the sustainable performance of small firms'. The dynamic capabilities of small firms mediated the relationship between EBN and small firms' performance. In phase two, we planned a pilot study to examine and gain a clear understanding of the reliability of questionnaire items' and modified it accordingly. In the third and final phase, we conducted the survey and received data from the respondents.

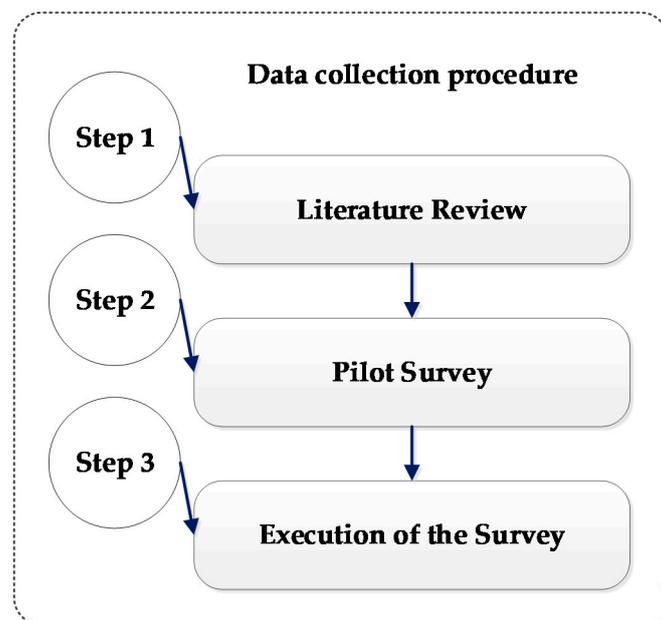


Figure 2. The procedure of data collection.

3.5. Sample and Procedures

This study emphasized on small firms and small and medium enterprises of the medical sector in Pakistan. In general, in Pakistan, small firms and SMEs are the businesses with no more than 35 employees [81,82]. This study incorporated a cross-sectional research design that involved collecting

survey data to meet the research objectives [83]. This prospective study adopted the approach of a quantitative survey by incorporating a self-administered questionnaire to measure the relationship between the selected variables to achieve the objective and this approach eventually deemed fit for the proposed model. The universe under this investigation is the selected small firms and SMEs manufacturing surgical instruments in Pakistan. We received the list of registered small firms and small and medium enterprises from the surgical instruments manufacturers association of Pakistan [84]. This study adopted a simple random sampling method. Authors distributed 512 questionnaires to the respondents of small firms and SMEs manufacturing surgical instruments in the selected areas to collect the required data. The age range of the majority respondents ranged between 41 to 50 years (114 questionnaires = 38.5%), and participants with a bachelor's degree were 32.8% of participants (97 = 32.8%). About the designations, most respondents were either owners or the managers (266 = 90%). Majority of the small firms and SMEs, age was over 16 years (193 = 65.20%), having 10 to 35 employees. The founder of the small businesses was in the majority (155 = 52.40%), and they had working experience of over nine years (239 = 80.70%). The majority of the small firms and small and medium enterprises owners (259 = 87.50%) owned shares over 75% in the small firms. In the same way, over 90% small firms and SMEs, (276 = 93%) had the membership of the Sialkot Chamber of Commerce and Industry (SCCI), and Surgical Instruments Manufacturer Association of Pakistan (SIMAP). The demographic analysis of respondents as shown in Table 1 below;

Table 1. Demographic analysis of respondents.

| Description | Respondents Profile | |
|------------------|------------------------|------------|
| | Number | Percentage |
| Age | | |
| 21–30 | 20 | 6.8% |
| 31–40 | 31 | 10.5% |
| 41–50 | 114 | 38.5% |
| 54–60 | 95 | 32% |
| 60 above | 36 | 12.2% |
| | Marital Status | |
| Single | 32 | 10.8% |
| Married | 254 | 85.8% |
| Separated | 10 | 3.4% |
| | Position/Status | |
| Owner | 266 | 89.9% |
| Manager | 25 | 8.4% |
| Other | 5 | 1.7% |
| | Education | |
| HSSC | 66 | 22.3% |
| Diploma | 57 | 19.3% |
| Degree | 97 | 32.6% |
| Postgraduate | 70 | 23.6% |
| Other | 6 | 2.0% |
| | Firm Age | |
| Less than 1 year | 11 | 3.7% |
| 1–5 years | 15 | 5.1% |
| 6–10 years | 26 | 8.8% |
| 11–15 years | 51 | 17.2% |
| 16 above | 193 | 65.2% |

4. Analysis and Results

4.1. Descriptive Statistics of Latent Constructs

Descriptive statistics shows mean (M), std. deviations (SD), skewness and kurtosis of all the selected variables in Table 2. We have examined and tested it by using SPSS V-25. The descriptive statistics revealed the mean score and the standard deviation of the entrepreneurial business network

($M = 3.8035$, $SD = 0.55094$). Likewise, the mean and standard deviation for dynamic capabilities was $M = 3.7655$, $SD = 0.53580$. While $M = 4.1360$, $SD = 0.57819$ was revealed for small firms' sustainable performance. However, the latent variables mean scores indicated that respondents selected the average option in this study as shown in Table 2 below;

Table 2. Mean, standard deviation (SD), skewness and kurtosis values.

| Construct Values | Means (M) | Std. Deviation (SD) | Skewness | Kurtosis |
|------------------|-----------|---------------------|----------|----------|
| EBN | 3.8035 | 0.55094 | −0.603 | 2.073 |
| DC | 3.7655 | 0.53580 | −0.107 | −0.225 |
| SFP | 4.1360 | 0.57819 | −0.543 | 0.527 |

Descriptive statistics shows mean (M), std. deviations (SD), skewness and kurtosis of all the selected variables in Table 2. We have examined and tested it by using SPSS V-25 as shown in Table 2. The descriptive statistics revealed the mean score and the standard deviation of the entrepreneurial business network ($M = 3.8035$, $SD = 0.55094$). Likewise, the mean and standard deviation for dynamic capabilities was $M = 3.7655$, $SD = 0.53580$. While $M = 4.1360$, $SD = 0.57819$ was revealed for small firms' sustainable performance. However, the latent variables mean scores indicated that respondents selected the average option in this study.

In contrast, it exhibited that data points were closer to “mean scores” and not all latent variables standard deviations were close to one. Through kurtosis and skewness, this study analyzed the normality of the data. Entrepreneurial business networks, dynamic capabilities (DCs) and small firm performance were normally distributed. According to Kline [85], the threshold values of skewness must be ranged within +3 and −3 to be acceptable. In respect to the cut-off point of the kurtosis values range, it was recommended to range between +7 and −7 [86]. The results indicated normality of the data. Tabachnick and Fidell described that skewness and kurtosis deviation from normality typically do not make any substantive differences in data analysis when the population size is over 200 [87,88]. Henceforth, the construct values of kurtosis, as well as the skewness, are within an acceptable range as demonstrated in Table 1.

4.2. PLS Analyses

Researchers characteristically incorporate the smart-PLS-SEM method for developing theory in investigative research [89]. The smart-PLS-SEM central applications are confirmatory factor analysis, path analysis, regression models, covariance structure models, second-order factor analysis and correlation models [90]. The structural equation modeling (SEM) approach facilitates the linear relationship analysis between the latent constructs and manifest variables. The partial least squares (PLS-SEM) method denotes to multivariate statistical approaches to evaluate a measurement model at the same time, for instance, the relationship between study constructs and its conforming indicators with a structural model to indicate the relationship between the constructs [91]. It also might produce available parameter estimates to measure the relationship between unobserved variables. Usually, the SEM technique permits many associations to test and compute at once in the single proposed models with several associations instead of examining each connection individually. This prospective study applied the partial least squares (PLS-SEM) technique to screen and analyze the received data, as it helps in evaluating the developed model empirically. The PLS-SEM is a path for the statistical modeling technique, and modeling the complex multivariate analysis to examine the relationships between latent variables [92,93]. Similarly, the PLS-SEM research approach is a robust, flexible and superior tool to build an adequate statistical model while the PLS-SEM features help in achieving the predicted objective [94–96]. Wan Afthanorhan (2013) [97] and Astrachan, Claudia Binz, Patel, Vijay K., Wanzenried and Gabrielle emphasized that reliable and valid confirmatory factor analysis well achieved by using the smart PLS-SEM path modeling [93]. Consistent with the above arguments, the smart PLS-SEM is a statistical tool, which numerous researchers use in

various research fields/directions of social sciences, including business research [94]. The PLS-SEM technique easily handles non-normal data because it has flexible assumptions concerned with variables distribution and its normality [95]. The smart PLS-SEM method precisely permits to test complex models having multi-level effects, for instance, mediating role and other complex models' variables relationships [96]. Based on the evidence of the existing body of scientific literature, and the above debate, this study applied the partial-least-squares (PLS-SEM) tool for testing and measuring the designed model. The partial-least-squares refers to a multivariate statistical method for evaluating the measurement model simultaneously such as the relationship between the study constructs and its conforming indicators with a structural model to indicate relationships between the constructs. This study incorporated the Smart PLS-SEM V-3.2.8 for data screening, analysis and followed the assumptions and to calculate loadings, path coefficients and weights, the study used the bootstrapping method to determine the significance levels [91].

4.3. Measurement Model's Evaluation

This study evaluated the quality and merit of measurement goodness to confirm the validity and "reliability" of the analysis process output by using the Smart PLS-SEM approach. Based on Hair et al. [91], this study assessed individual item 'reliability,' discriminant validity and concurrent validity before testing the proposed hypotheses of this model. This study applied the Smart PLS algorithm tool to ascertain each item's 'reliability' and the measurement assessment of the model as indicated in Figure 2. The indicator 'reliability' examined according to the outer loadings of each measurement, intended to measure a construct [91]. The composite 'reliability' is the most common indicator to explore the 'reliability' of internal consistency in the organizational research fields, and this study applied this technique [96]. This study recommended that composite 'reliability' is appropriate to incorporate the Smart PLS-SEM [91]. The convergent validity presents the validity of reflective construct that measures how a specific measurement truly measures the construct that study intended to assess, and this model offers a positive correlation with other alternative analyses of the same construct. Therefore, it shows the degree of relationships between the equal/same construct measures [91]. Hair et al. [88,91] recommended a comprehensive research method of average variance extracted (AVE) for verifying convergent validity for constructs level. The loading values are set at 0.4 according to Hair et al.'s recommendations, AVE value is set at 0.5 whereas the composite 'reliability' must present the value 0.70 [91]. Therefore, this study conceptualized entrepreneurial business network (EBN) and dynamic capabilities (DCs) as the constructs of second-order as shown in Figure 2. Accordingly, the study followed the recommended Smart PLS-SEM technique based on the existing body of previous literature, which approved the method of repeated indicators of the model as the second-order factors in the analysis. Table 2 below presents the results of the planned measurement model, which were exceeding that than the recommended value, which indicate that the convergence validity was sufficient. Figure 3 shows the results below.

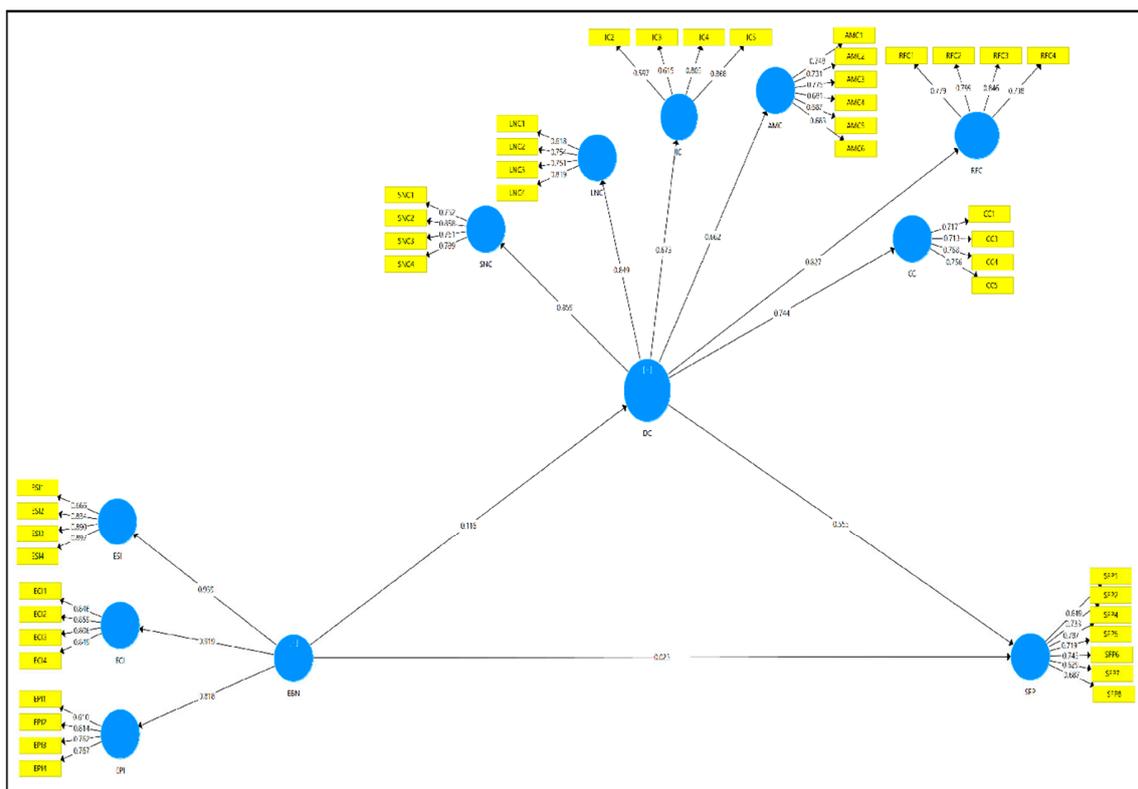


Figure 3. Measurement model (partial least squares (PLS-SEM) algorithm).

The indicator ‘reliability’ examined according to the outer loadings of each measurement intended to measure a construct [91]. The composite “reliability” (CR) is the most common indicator to check the “reliability” of the internal consistency in the organizational research discipline, and a previous studies have applied this method [97]. This study recommended that composite ‘reliability’ is appropriate to use the smart PLS-SEM approach [91]. The convergent validity presents the validity of reflective construct that measures how a specific measurement truly measures the construct, which was intended to assess/measure and it exhibited a positive correlation with other alternative analyses of the same construct. Henceforward, it has presented the degree of correlation among the identical construct measures [91]. Hair et al. [88,91] recommended a comprehensive research method of average variance extracted (AVE) for verifying convergent validity for constructs level. The loading values are set at 0.4 according to Hair et al.’s recommendations, AVE value is set at 0.5 whereas the composite ‘reliability’ must present the value 0.70 [91]. Therefore, this study conceptualized entrepreneurial business network (EBN) and dynamic capabilities (DCs) as the constructs of second-order as shown in Figure 2. Accordingly, the study followed the recommended Smart PLS-SEM technique based on the existing body of previous literature, which approved the method of repeated indicators of the model as the second-order factors in the analysis. Table 3 below presents the results of the projected measurement model, which were exceeding that than the recommended value, which indicate that the convergence validity was sufficient (see Figure 3) as indicated in Table 3 below.

Table 3. The measurement model displays a convergent validity, alpha and ‘reliability’.

| Construct | Second-Order | Items | Loading | Cronbach’s Alpha | CR | AVE |
|-----------|--------------|-------|---------|------------------|-------|-------|
| ESI | | ESI1 | 0.666 | 0.840 | 0.895 | 0.683 |
| | | ESI2 | 0.834 | | | |
| | | ESI3 | 0.890 | | | |
| | | ESI4 | 0.897 | | | |
| ECI | | ECI1 | 0.846 | 0.861 | 0.905 | 0.706 |
| | | ECI2 | 0.859 | | | |
| | | ECI3 | 0.806 | | | |
| | | ECI4 | 0.849 | | | |
| EPI | | EPI1 | 0.610 | 0.721 | 0.829 | 0.550 |
| | | EPI2 | 0.814 | | | |
| | | EPI3 | 0.762 | | | |
| | | EPI4 | 0.767 | | | |
| SNC | EBN | ESI | 0.939 | 0.914 | 0.922 | 0.798 |
| | | ECI | 0.919 | | | |
| | | EPI | 0.818 | | | |
| | | SNC1 | 0.752 | | | |
| LNC | | SNC2 | 0.858 | 0.799 | 0.870 | 0.626 |
| | | SNC3 | 0.761 | | | |
| | | SNC4 | 0.789 | | | |
| | | LNC1 | 0.618 | | | |
| IC | | LNC2 | 0.754 | 0.721 | 0.827 | 0.546 |
| | | LNC3 | 0.751 | | | |
| | | LNC4 | 0.819 | | | |
| | | IC2 | 0.597 | | | |
| AMC | | IC3 | 0.615 | 0.700 | 0.817 | 0.534 |
| | | IC4 | 0.805 | | | |
| | | IC5 | 0.868 | | | |
| | | AMC1 | 0.748 | | | |
| | | AMC2 | 0.731 | | | |
| | | AMC3 | 0.775 | | | |
| RFC | | AMC4 | 0.681 | 0.812 | 0.865 | 0.516 |
| | | AMC5 | 0.687 | | | |
| | | AMC6 | 0.683 | | | |
| | | RFC1 | 0.779 | | | |
| CC | | RFC2 | 0.799 | 0.800 | 0.870 | 0.626 |
| | | RFC3 | 0.846 | | | |
| | | RFC4 | 0.738 | | | |
| | | CC1 | 0.717 | | | |
| SFP | DC | CC3 | 0.713 | 0.723 | 0.828 | 0.546 |
| | | CC4 | 0.768 | | | |
| | | CC5 | 0.756 | | | |
| | | SNC | 0.859 | | | |
| | | LNC | 0.849 | | | |
| | | IC | 0.673 | | | |
| | | AMC | 0.662 | | | |
| | | RFC | 0.827 | | | |
| SFP1 | 0.649 | | | | | |
| SFP | | CC | 0.744 | 0.835 | 0.876 | 0.503 |
| | | SFP2 | 0.733 | | | |
| | | SFP4 | 0.787 | | | |
| | | SFP5 | 0.719 | | | |
| | | SFP6 | 0.745 | | | |
| | | SFP7 | 0.629 | | | |
| | | SFP8 | 0.687 | | | |

Notes: AVE represents the average variance extracted (AVE), and CR displays composite ‘reliability’. The first step was to confirm the convergent validity and then study assessed discriminant validity by applying the technique of heterotrait-monotrait ratio of correlations (HTMT).

Discriminant validity can be defined as extents to a specific latent construct, which is different from another latent construct [92]. The heterotrait-monotrait ratio of correlations (HTMT) is an innovative technique to measure the discriminant validity by applying the smart PLS-SEM approach. Henseler, Ringle and Sarstedt [98] proposed this new criterion method to ascertain discriminant validity [99]. According to Henseler, Hubona and Ray [100], the heterotrait-monotrait ratio of correlations (HTMT) refers to an estimate of factor correlations, and the HTMT threshold value ought to be lesser than one significantly. Thus, this proposed study applied the HTMT criterion to measure discriminant validity [101]. Table 4 demonstrates that all the constructs had already verified and established discriminant validity as given below in Table 4:

Table 4. Discriminant validity assessment (HTMT criterion).

| Constructs | 1 | 2 | 3 |
|------------|--------|--------|---|
| DC | - | | |
| EBN | 0.1676 | - | |
| SFP | 0.6153 | 0.1223 | - |

4.4. Structural Model's Assessment

The assessment of this proposed structural model had various stages. In the first step, this study evaluated and analyzed the measurement model, and in the next phase tested and examined the designed model through the Smart PLS-SEM path modeling. Hair et al. described that significance of the path coefficients and coefficients of determination (R^2) are the critical criteria to measure the structural model by applying PLS-SEM [91]. This segment presents both the direct and the auxiliary hypotheses, which might be examined through the bootstrap analysis method. However, the bootstrapping process involves with a size of re-sampling consisting of 500 respondents, and this study used the "t-statistics" and path estimates to measure the hypothesized relationship of this population. It has also measured both direct and indirect path coefficients and the mediation relationship [94]. This study aimed to examine the direct link between entrepreneurial business networks (EBN), small firms' sustainable performance with the mediating role of small firms' dynamic capabilities. Here, Table 3 and Figure 4 present a comprehensive estimation of the structural model with statistical evidence to this proposed model. The coefficient of determination (R^2) is an essential criterion for the structural model. Various scholars have explained that the value of R-squared (R^2) presents a proportional variation of independent variables and the predicting variable(s) can describe it appropriately [91]. However, the (R^2) value of the endogenous variable (small firm performance) was 0.31, which indicates that the combinations of exogenous latent variables namely, entrepreneurial business network and dynamic capabilities jointly explain 31% of the variance in a small firms' sustainable performance. According to the recommendations of Cohen [101], R-square values (R^2) 0.26, 0.13 and 0.02 related to endogenous constructs might be interpreted as substantial, moderate or weak correspondingly. However, the R-square value (R^2) of (a small firm's sustainable performance) the endogenous latent variable was significant as shown in Figure 4 below.

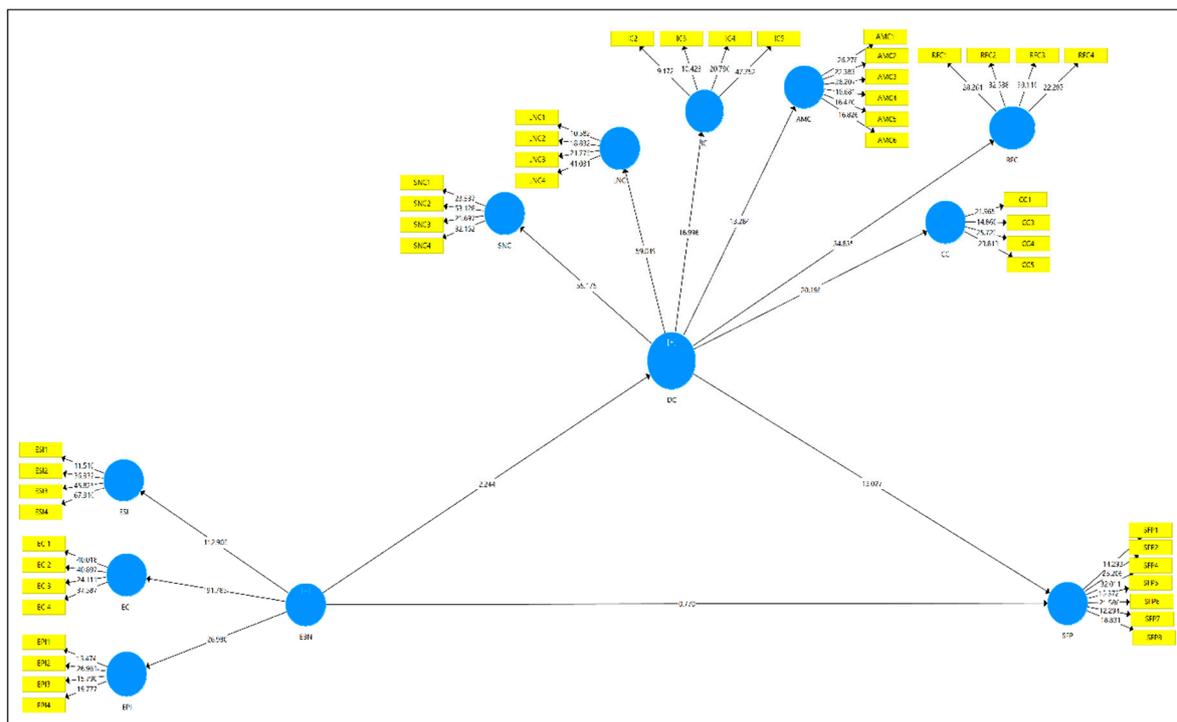


Figure 4. Structural model (PLS-SEM bootstrapping analysis).

Table 5 presents the results of this proposed study. The outcomes confirmed that Hypothesis 1 was not supported, which indicated that there was not a significant relationship between EBN and sustainable performance of the small firms. The results have not confirmed Hypothesis 1 as indicated in Table 5. Results affirmed that entrepreneurial business network had not shown a positive relationship with the sustainable performance of small firms. In Hypothesis 2, the study examined how dynamic capabilities of small firms mediated the relationship between the variables of the entrepreneurial business network and small firms’ sustainable performance. The findings of Table 5 endorsed the significant positive relationship and confirmed Hypothesis 2. It approved that the entrepreneurial business network presented a significant positive relationship with dynamic capabilities. The results supported Hypothesis 3 as indicated in Table 4. It also affirmed that dynamic capabilities revealed a positive relationship to small firm sustainable performance. Finally, the findings of this study confirmed Hypothesis 4 as indicated in Table 5. Hypothesis 4 showed that the dynamic capabilities of small firms mediated the relationship between the entrepreneurial business network and sustainable performance of the small firm. The result of Hypothesis 4 indicated that the mediating impact was significant. Table 5 below displays the results of hypotheses.

Table 5. Hypothesis testing.

| Hypothesis | Relationship | Std. Beta | Std. Error | t-Value | p-Values | Decision |
|------------|---------------------|-----------|------------|---------|----------|---------------|
| H1 | EBN -> SFP | 0.0232 | 0.0302 | 0.7698 | 0.2209 | Not-supported |
| H2 | EBN -> DC | 0.1161 | 0.0518 | 2.2442 | 0.0126 | Supported |
| H3 | DC -> SFP | 0.5546 | 0.0426 | 13.027 | 0.0000 | Supported |
| H4 | EBN -> DC -> SFP | 0.0644 | 0.0307 | 2.0995 | 0.0181 | Supported |

Note: Significant at the 5% level (p-value < 0.05).

5. Discussion

This study planned a purposeful effort to examine the relationship between the entrepreneurial business network and small firms' sustainable performance with the mediating role of dynamic capabilities [1,4,9,10,15,24]. There is an absolute requirement of future studies to investigate the social dimensions of entrepreneurship primarily highlighting the findings of entrepreneurial activities in response to social interaction and communication within small firms' mechanisms [38]. The background information has provided a platform to small firms and small and medium enterprises (SMEs) for conducting a study to examine how dynamic capabilities mediate the relationship between the entrepreneurial business network and small firms. This study bridges it to a better level of information development. We have designed this proposed study addressing and bridging the literature gap based on an intensive literature review. This study examined how a small firm's dynamic capabilities mediated the relationship between a small firm's business performance and entrepreneurial business network. The findings contributed to the existing scientific knowledge by viewing the link of entrepreneurial business network and dynamic capabilities with a small firm's performance. The results are beneficial for the owners and managers to address the problems and enhance firms' competitiveness for business growth [102]. The existing body of literature lacks the proper examination in the context of Pakistan, and the main reason was the unavailability of exact information on small firms [103]. Ul Haq et al. explained that limited research existed on small firms and they recommended further work on entrepreneurial research and small firms sustainable performance [104]. McDonald, Gan, Fraser, Oke and Anderson [105] reviewed the entrepreneurship research methods and they identified that there were fewer designs at the micro-level and this research aimed to explore the relationship between entrepreneurial business network (EBN) firms sustainable performance; however, it was surprisingly limited [106].

In the existing body of literature, dynamic capabilities is an essential and complex concept, which occupies a notable significance in competitive strategy entrepreneurial network literature. However, managerial choices play a vital role in the selection of resources. These procedures have posited that dynamic capabilities value realization depends on the conditions of the business environment and organizational knowledge. Indeed, the main reason for the ongoing interests in firms' dynamic capabilities is the potential influence on firms' performance. The results of the study are also consistent with Eisenhardt and Martin's (2000) view as they recognized that dynamic capabilities do not guarantee superior firm performance [10]. Dynamic capabilities are necessary but not sufficient to maintain sustained advantages to achieve sustainable performance. Firms with excellent abilities would be more likely to meet tough emerging challenges promptly. However, it depends on firms' ability to respond to meet tough emerging challenges on time though they have equivalent substantive dynamic capabilities. Indeed, different firms face different processes and potential advantages when firms have the abilities to adjust rapidly, reconfigure and change the processes as desired in a competitive business environment. Anand and Vassolo (2008) identified that dynamic capabilities enable the business firm to select better and reliable business partners and structure their network relationships efficiently. Firms' achieve new knowledge, which improves their sustainable performance [107]. Teece, Pisano and Shuen (1998) identified that firms' dynamic capabilities renew firms' capabilities, which in turn improve performance, especially in competitive and dynamic markets [10,32]. In an earlier study, Rindova and Kotha (2001) recognized that dynamic capabilities are essential for elevating firms' managerial capabilities to spot and exploit business opportunities in evolving and competitive environments [108]. In another study, Daniel and Wilson (2003) recommend that firms' dynamic capabilities improve the success of firms transformational efforts [109]. Lee et al. (2002) observed that new sources of competitive benefit lie in small firms' capability to conceptualize how small firms might cope with competitive environmental changes by recognizing and exploiting business opportunities. These views present the general literature tenor on the significance of firms' dynamic capabilities to developing and sustaining a competitive business advantage [110].

The results of this model specified that the business network is helpful to access and acquire valued resources from the entrepreneurial network resource and it contributes to small firms improved performance. The findings of this study showed that the relationship between the small firm's performance and entrepreneurial business network (EBN) was not significant. Rao and Singh (2016) and Pavlou and El Sawy (2011) described that the 'reliability' of dynamic capabilities measures value should be higher than 0.70 and it will indicate an appropriate level of 'reliability' for the construct. [36,37]. We selected items from Spillan and Parnell (2006) to measure the sustainable performance of small firms [80]. Spillan and Parnell (2006) reported that the measures of sustainable performance provided a satisfactory level of validity and reliability [80]. The measures of alpha coefficient shown reliability value 0.761 and it indicated a reliable, sustainable performance of small firms. In this study, we applied the smart PLS-SEM technique, and through a comprehensive analysis of the structural and measurement models, study results affirmed both models. We implemented an advanced method using PLS-SEM software V-3.2.8, which is a commonly used multivariate analysis approach to calculate and assess the variance-based structural equations models by performing a statistical analysis [94,111]. It can test the relationships of a selected model's latent and manifest variables simultaneously by using measurement and structural models. We designated this technique because of its assessment ability concerning the psychometric properties of each latent construct, determining which the most significant construct is and how it affects sustainable performance [91,94]. Table 5 presents the analysis of the structural model of this proposed study. This study argued in Hypothesis 1, "the entrepreneurial business network has a significant positive relationship with a small firm's sustainable performance". The findings from this study (see Table 5) indicated no support for Hypothesis 1 as follows: The entrepreneurial business network (EBN) → small firms performance relationship is not significant in the proposed model of this study as indicated by the results in Table 5 ($\beta = 0.0232$, $t = 0.7698$, $p = 0.2209$). Thus, findings revealed in this study did not confirm Hypothesis 1 as indicated in Table 5. Results affirmed that the entrepreneurial business network (EBN) was not positively related to the sustainable performance of small firms' and statically was not significant at the 5% level ($\beta = 0.0232$, $t = 0.7698$, $p = 0.2209$). Thus, results have not approved Hypothesis 1. This outcome of Hypothesis 1 was in line with the support of previous literature surprisingly because Kregar and Antoncic (2014) and Parker (2018) also viewed the same finding that there was not a significant relationship between the variables of entrepreneurial business network and a small firm's sustainable performance in their studies [40,47].

The plausible explanation of the non-significant relationship between variables of business networks (EBN) and sustainable performance of the small firms' might be due to business firms entrepreneurial dependency on entrepreneurs' capabilities. These capabilities are dynamic to combat with the turbulent competitive business environment. It seems that the effect of the entrepreneurial business networks has not shown a direct impact on the small firms' sustainable performance. However, it could be significant with the indirect effect through other capabilities. In the next stream, to test the mediation effect, the study found a meaningful relationship between the entrepreneurial business network and firms' dynamic capabilities. Numerous researchers have tried to find the relationship between business networks and a firm's survival or sustainable performance; however, their studies could not explore such relationships [50–54]. Aldrich (1994), Kregar (2014) and other scholars claimed that there was no significant positive relationship between entrepreneurial business networks and firms performance [39,40,55,56]. Likewise, Golden and Dollinger (1993) and others also could explore the empirical shreds of evidence to prove the relationship between business networks and sustainable performance of firms [57–59]. Rare studies observed the ties that entrepreneurial business networks might influence firms' performance. Thus, this concept is uncertain, equivocal and it requires further investigations to discover the potential impact of entrepreneurial business networks on the firm's performance. In the next phase, this study examined how dynamic capabilities mediated the relationship between entrepreneurial business networks (EBN) and small firms' performance.

The study then argued in Hypothesis 2 that dynamic capabilities mediated the relationship between entrepreneurial business networks (EBN) and firms' sustainable performance, which was a competing hypothesis as compared to Hypothesis 1. Entrepreneurial networks (EBN) → firms' performance relationship was non-significant ($\beta = 0.0232, t = 0.7698, p = 0.2209$), while firms' dynamic capabilities → small firms' performance exhibited a significant positive relationship ($\beta = 0.1161, t = 2.2442, p = 0.0126$). Thus, findings of this study confirmed Hypothesis 2, which stated "the entrepreneurial business network has a significant positive relationship with the firm's dynamic capabilities". This outcome endorsed that entrepreneurial business networks (EBN) showed a significant positive relationship ($t = 2.2442, p = 0.0126, <0.05$) with dynamic capabilities of small firms. The findings of the study confirmed and supported Hypothesis 2 as it has proved entrepreneurial business networks had a significant positive relationship with the firm's dynamic capabilities. The findings of Hypothesis 2 was also consistent with the previous study of Eriksson (2014), which described these results and highlighted the outcome that the entrepreneurial business network was antecedent of dynamic capabilities [75]. Therefore, it has confirmed this statement with empirical evidence. Scholars argued that firms adequately equipped with dynamic capabilities, business firms might reconfigure, build and integrate the available internal resources besides firm-specific external available resources in responding the turbulent and challenging environment [63,64], as dynamic capabilities are efficient execution and exploration of new prospects [65,66]. The organizational theory, described dynamic capability as the competence of firms to purposefully adopt the available resource base [67]. In 1997, David Teece, Gary Pisano and Amy Shuen defined this concept that firms' capabilities to build, integrate, develop and reconfigure its internal/external capabilities to address the rapidly changing competitive business environments. Dynamic capabilities help business firms to react adequately, efficiently and timely to external changes that require a combination of multiple capabilities [67,68].

This study argued in Hypothesis 3, which claimed "dynamic capabilities have a significant positive relationship with small firms' sustainable performance". Results ($\beta = 0.5546, t = 13.027, p = < 0.001$) endorsed Hypothesis 3 as indicated in the Table 5. It also proved that dynamic capabilities ($t = 13.027, p = 0.0000, <0.05$) presented a significant positive relationship with sustainable performance of small firms. The findings have confirmed this relationship by endorsing Hypothesis 3. The findings of this study are also consistent with the previous study of Lin and Wu [74], which provided similar results. Many researchers have argued and debated the significance of dynamic capabilities and explained how business networks get influences on dynamic capabilities [75–77]. The entrepreneurial business networks provide a variety of benefits to firms, which, in turn, bring core capabilities to boost up the sustainable performance [26,78]. Lin and Wu (2014) described that dynamic capabilities are a transformer of available resources of business firms and typically, firms convert these resources as their tools to achieve enhanced performance [74].

Finally, Hypothesis 4 stated "dynamic capabilities mediated the relationship between business networks and small firm's sustainable performance." The findings of this study confirmed Hypothesis 4 as indicated in Table 5 ($\beta = 0.0644, t = 2.095, p = 0.0181$). Thus, Hypothesis 4 exhibited that the dynamic capabilities of small firms mediated the relationship between the entrepreneurial business network (EBN) and sustainable performance of the small business firm. The result of Hypothesis 4 indicated that the mediating impact was significant at the level of 5% ($t = 2.0995, p = 0.0181, <0.05$). This finding of Hypothesis 4 was also in line and consistent with the support of the body of previous literature, interestingly. Based on the existing body of the literature, various scholars have identified firms' dynamic capabilities as a potent mediator [21,79]. The previous literature indicated that firms' dynamic capabilities could perform a mediating relationship between available resources and sustainable performance [112]. The plausible explanation of the significant relationship between firms' dynamic capabilities variable and entrepreneurial business networks and sustainable performance could be in response to business firms' entrepreneurial reliance on entrepreneurs' competences. Such capabilities are dynamic to combat with a challenging and competitive environment. It has evidence that firms' dynamic capabilities have presented a mediating impact on the relationship between

entrepreneurial business networks and the sustainable performance of small firms. In this stream, examining the mediation impact, this proposed study explored a significant positive relationship between the entrepreneurial business network and firms' sustainable performance [113].

6. Implications

This study has contributed to the existing body of the literature related to the research field of entrepreneurship business network and sustainable performance of small firms in numerous ways. Unlike most of the previous studies explaining the impact of business networks and their relationship with firms' performance, this study investigated the role of entrepreneurial networks on the sustainable performance of the firms [105,114]. This study introduced three variables namely the entrepreneurial business network, firm's sustainable performance and dynamic capabilities as the mediating variable. The acquisition of a network resource provided an alternative explanation for the deviating outcomes gained from past studies [115]. Business network improves interaction relationship with business competitors, relationship resources, such as network status, power of resources control, cohesion and trust come from communication and interaction between business industries and other members in the business network. Members of business networks can exchange knowledge, share resources and complement capabilities through business networks [21,116]. This outcome is also in line with the explanations of Tseng and Lee (2014), Mahmood (2015) and Lin and Wu (2014), as these studies described that dynamic capabilities (DCs) mediate the relationship significantly between small firms' valuable resources and sustainable performance of small firms [72,74,79,104].

The model of this study in Figure 1 indicates that the entrepreneurial business network did not prove a direct impact on small firms' sustainable performance, which provides feedback to entrepreneurial activities choices. However, it has indicated a more complex set of connections among available business opportunities, learning processes, relationships building, developing capabilities and organizational outcomes. The main feature of this research model is that small firms' dynamic capabilities mediated the relationship between the entrepreneurial business network and sustainable performance of a small firm. This model indicated that implication nature and quality of dynamic capabilities improved performance. The firms' knowledge stems from available organizational resources and the learning process the venture puts in order early on. When it comes to developing and exploiting available dynamic capabilities, established firms' and new firms' ventures might have various types of advantages. However, previous literature has not well cataloged these differences. Future studies can enrich our highlighted understanding of these problems. This understanding might assist us in forming multiple prescriptions for established and new firms. The most broadly held assumption is the malleability of new business ventures' practices making it easier for small firms' founders and entrepreneurs to develop new capabilities radically [117].

The accumulating small firms' valuable available resources (entrepreneurial business network) and developing small firms' dynamic capabilities, business companies might refine and enhance competitive advantages. As a result, small firms' improved their business performance significantly. The significant role of valuable resources and small firms' dynamic capabilities are interlinked and have revealed the relationship between small firms' sustainable performance. This model established it on the resource-based view (RBV) besides small firms' dynamic capabilities view (DCV). This prospective study has fulfilled the ultimate purpose of the theory to accomplish the superior and sustainable performance of small firms. In terms of its contribution to scientific knowledge and novelty, it has contributed to the body of scientific knowledge. It has evaluated both the direct and indirect impact of the entrepreneurial business network (EBN) on small firms' sustainable performance.

The present study offers many managerial implications to small firms and SMEs operating in Pakistan. The findings showed that entrepreneurial networks inclined to improve the abilities of the small firms to acquire valuable information, business opportunities and resources from surrounding business networks. It might differentiate them from other business networks who do not have this resourceful benefit. The persistent effort and specific role in refining and managing the business network

resources acquisition should be in place during the process of strategic planning. Small firms pursue their entrepreneurial initiatives to gain advantages in the competitive business environment. Managers, executive and firms' owners need to design effective ways to communicate and interact to make their business network more beneficial. They should be aware of an available advantage to develop more resource-based business collaborations. It is essential for small firms operating in a challenging and competitive business environment in emerging economies. They face turbulent situations and experience relatively a shortage of internal resources and competencies [118,119]. To enhance the competitive advantage, small firms doing businesses in the emerging economies should acquire and leverage resources across the organizational boundaries to develop the necessary circumstances for their effective exploitation of incoming business opportunities through the entrepreneurial network. The results of this study emphasized the importance of business networks in which small firms enact their available entrepreneurial network posture and develop valuable guidelines for managers, executive and owners on how they might cultivate specific business ties and the configurational combinations. In general, the findings of this study revealed that small firms' business ties help entrepreneurial businesses to the most efficiently exploit external resources and opportunities for knowledge and technologies.

The practical insinuations of his envisioned study are beneficial for owners and business managers of small firms in Pakistan and the rest of the world. The findings provided a platform of insights to the focused research area and results might help in improving the performance and sustainability of small firms. The findings of this model are advantageous and helpful for small firm owners and managers of the medical sector of Pakistan. They can utilize entrepreneurial business networks properly, and these networks have a positive effect in developing dynamic capabilities of a small firm to enhance sustainable performance. By an overall scenario, the findings of this research study might help managers and small firms' owners to consider results applications in various emerging and to develop markets around the world. These present markets a majority of small firms and the entrepreneurial business network (EBN) might have a significant impact on small firms' sustainable performance through small firms' dynamic capabilities. Correctly, for small and medium-sized firms' sustainability, these findings might apply to policy-makers and decision-makers to revamp their business design.

7. Conclusions

In conclusion, this study and its structural model have addressed the gap in small business development through an in-depth literature review. We have tested this designed model, examined the effect of the entrepreneurial business network (EBN) on the sustainable performance of small firms. The developed model emphasized to investigate how dynamic capabilities of small firms, mediated the relationship between the entrepreneurial business network and 'sustainable performance' of small business firms. The introduction section of this proposed study discussed earlier that small business firms are not performing at satisfactory levels and results found it stagnant. Besides, the existing body of literature recognized that efficient, reliable and dynamic small firms contribute to sustainable economic development. It develops essential improvement by creating a competitive advantage for small firms in a challenging business environment. This research study used the Smart PLS-SEM method, and the results of the structural and measurement models confirmed both models. This study incorporated an advanced approach through the Smart PLS-SEM Version-3.2.8, mostly scholars' used to perform a multivariate investigation to calculate the variance-based structural equations models by performing a statistical analysis [94,111]. This technique is suitable to test relationships of a selected model's latent and manifest variables simultaneously by using measurement and structural models. We considered this approach because of its assessment capability concerning the psychometric properties of each latent construct, by determining which the most critical construct is and how it affects sustainable performance [88,91,94]. The results of this study provided exciting insights for business managers, decision-makers poly-makers and owners of small and medium-sized firms.

Results did not prove Hypothesis 1 ($\beta = 0.0232$, $t = 0.7698$, $p = 0.2209$), stating that the entrepreneurial business network (EBN) did not show a positive relationship with the sustainable performance of the small firms. Therefore, findings did not confirm Hypothesis 1, stating “the entrepreneurial business network (EBN) has a significant positive relationship with sustainable performance of small firms”. This outcome is in line with earlier studies [40,47]. Hypothesis 2 claimed “the entrepreneurial business network has a significant positive relationship with the firm’s dynamic capabilities”. The findings endorsed the significant positive relationship ($\beta = 0.1161$, $t = 2.2442$, $p = 0.0126$), and affirmed Hypothesis 2 of this study. It permitted that the entrepreneurial business network had a significant positive correlation with dynamic capabilities. The results proved it empirically, and findings are consistent with previous literature [75]. Hypothesis 3 stated “dynamic capabilities have a significant positive relationship with the small firm’s sustainable performance”. The results of this study ($\beta = 0.5546$, $t = 13.027$, $p = 0.000$) proved Hypothesis 3. It also proved that small firms’ dynamic capabilities ($t = 13.027$, $p = 0.0000$, <0.05) showed a significant positive relationship with the sustainable performance. This result is also consistent with the body of existing literature [74,120]. Finally, Hypothesis 4 claimed “dynamic capabilities mediated the relationship between the entrepreneurial business network and small firm’s sustainable performance”. The results of this study ($\beta = 0.0644$, $t = 2.095$, $p = 0.0181$) affirmed Hypothesis 4. Thus, Hypothesis 4 exhibited that the dynamic capabilities of small firms’ mediated the relationship between the entrepreneurial business network and sustainable performance of the small business firms. The results indicated that the mediating impact was significant and confirmed the statement. This finding is also in line with the findings of previous studies [72,74,79,104,120–122]. The accruing small firms’ valuable available resources such as the entrepreneurial business network and dynamic capabilities, small firms’ could improve competitive advantages. This model established the resource-based view (RBV) besides the small firms’ dynamic capabilities view (DCV). This study has addressed the final drive of the theory to achieve sustainable performance. The findings of this study contributed to the body of scientific knowledge. It has assessed both the direct and indirect influence of the entrepreneurial business network on the sustainable performance of the small firms’ operating in the Pakistani manufacturing industry of medical products.

8. Limitations and Future Research

The empirical findings of this study recruited respondents from the selected Pakistani surgical instruments manufacturing sector only. They are thus restricting its generalizability to the entire population of surgical instruments manufacturers in Pakistan. The study tools measured the influence of the entrepreneurial business network on the sustainable performance of small firms. It examined how dynamic capabilities mediated the relationship between these two mentioned variables. Considering the competitive business environment for small firm sustainable development and improved performance would be beneficial. Therefore, the results of this model are not generalizable to all small firms and other SMEs manufacturing surgical instruments in Pakistan. However, it is limited to surgical instruments manufacturers only even though empirical results are contributing to the current and previous literature. In respect of future research directions, this specific proposed research model is helpful and advantageous for various small firms in generalizing study findings to enhance their business performance. Contrary, by developing conclusions better and precisely, researchers might consider small and medium enterprises’ learning orientation as a mediating variable and the small firm’s age as a moderating variable. Another recommendation of this model describes that it is a cross-sectional research design for data collection and research execution. Future studies might adopt the longitudinal design to test this proposed model and research direction. Correspondingly, longitudinal research studies in this context can contribute to the academic literature concerning entrepreneurial business network and dynamic capabilities of small firms. In short, the model of this proposed study was tested in the Pakistani context. However, future research studies with new samples

from various cultures and countries might also be fascinating to replicate this proposed research model to increase the applicability of the findings.

Author Contributions: J.A. conceptualized the idea, completed Introduction, Literature, Discussion, Conclusion and edited the original manuscript, S.R. conceptualized, drafted methodology and analysis section, S.B. collected data and helped resource. M.S.M. supervised the project and M.N. has reviewed the edited manuscript and provided support.

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Appendix A

Table A1. Measurement items: Entrepreneurial business network (EBN).

| |
|----------------------------------------------------------------------------------------------------------|
| (1) Entrepreneurial Supplier interaction |
| 1. Our firm, builds partnership with suppliers and share creative ideas quite often. |
| 2. Our, firm often interacts with suppliers to stimulate innovative product ideas. |
| 3. Our-firm-often-interacts-with-suppliers-to-develop-new-innovative-products. |
| 4. Our-firm-often-interacts-and-cooperates-with-suppliers-to-test-new-innovative-products. |
| (2) Entrepreneurial Customer Interaction |
| 1. Our-firm-builds-partnership-with-customers-and-share-creative-ideas-quite-often. |
| 2. Our-firm-often-interacts-with-customers-to-stimulate-innovative-product-ideas. |
| 3. Our-firm-often-interacts-with-customers-to-develop-new-innovative-products |
| 4. Our-firm-often-interacts-and-cooperates-with-customers-to-test-new-innovative-products. |
| (3) Entrepreneurial Competitor Interaction |
| 1. Our-firm-builds-partnership-with-competitors-and-share-creative-ideas-quite-often. |
| 2. Our-firm-often-interacts-with-competitors-to-stimulate-innovative-product-ideas. |
| 3. Our-firm-often-interacts-with-competitors-to-develop-new-innovative-products. |
| 4. Our-firm-often-interacts-and-cooperates-with-competitors-to-test-new-innovative-products. |
| (4) Dynamic Capabilities |
| (4) Sensing Capability |
| 1. We-frequently-scan-the-environment-to-identify-new-business-opportunities. |
| 2. We-periodically-review-the-likely-effect-of-changes-in-our-business-environment-on-customers. |
| 3. We-often-review-our-product-development-efforts-to-ensure-they-are-in-line-with-what-customers-want. |
| 4. We-spend-a-great-deal-of-time-implementing-ideas-for-new-product-and-improving-our-existing product |
| (5) Learning Capability |
| 1. We-have-effective-routines-to-identify-to-value-and-to-import-new-information-and-knowledge. |
| 2. We-have-appropriate-routines-to-assimilate-new-information-and-knowledge. |
| 3. We-are-effective-in-transforming-existing-information-into-new-knowledge. |
| 4. We-are-effective-in-utilizing-knowledge-in-new-product. |
| 5. We-are-effective-in-developing-new-knowledge-that-has-the-potential-to-influence-product-development. |
| (6) Integrating Capability |
| 1. Our-Employees-individual-contributions-are-channeled-through-their-work-group. |
| 2. Members-of-our-firm-have-a-global-understanding-of-each-other's-tasks-and-responsibilities. |
| 3. We-are-fully-aware-of-who-in-the-firm-has-specialized-skills-and-knowledge-relevant-to job |
| 4. We-carefully-interrelate-actions-between-members-of-the-firm-to-face-changing-conditions. |
| 5. Members-of-our-firm-manage-to-successfully-interconnect-their-activities. |

Table A1. Cont.

| |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (7) Alliance Management Capability |
| <ol style="list-style-type: none"> 1. Actively monitor the business environment to identify partnering opportunities procedure. 2. Actively monitor the business environment to identify partnering opportunities 3. Regularly gather information about prospective partners from various forums (e.g., trade-shows, industry conventions, databases, publications, internet, etc.) 4. Alert to market developments that create potential alliance opportunities. 5. Activities across different alliances are well-coordinated 6. Systematic coordination of organizational strategies across different alliances 7. Specific processes to systematically transfer knowledge across alliance partners. 8. Periodic reviews of its alliances to understand what it is doing right and where it is going wrong. 9. Periodically collect and analyze field experiences from its alliances. |
| (8) Reconfiguration Capability |
| <ol style="list-style-type: none"> 1. Clear human resource re-allocation procedure. 2. Fast organizational response to market changes 3. Fast organizational response to competitor's actions. 4. Efficient and effective communication with the cooperative organization |
| (9) Coordinating Capability |
| <ol style="list-style-type: none"> 1. We ensure that the output of each employee's work is synchronized with that of the rest of group. 2. We ensure appropriate allocation of resources (e.g., information, time, reports). 3. Employees are assigned to tasks commensurate with their relevant knowledge and skills. 4. We ensure that employees' expertise is compatible with the work processes they are assigned to 5. Overall, our employees are well. |
| (10) Small Firm Performance |
| <ol style="list-style-type: none"> 1. Profit goals have been achieved 2. Sales goals have been achieved 3. Return on Investment (ROI) goals have been achieved 4. Our product (s) have a higher quality than those of our competitors. 5. We have a higher customer retention rate than our competitors. 6. We have a better reputation among major customer segments than our competitors. 7. We have a lower employee turnover rate than that of our competitors. 8. We have been more effective in new product development than our competitors. |

References

1. Zahra, S.A.; Sapienza, H.J.; Davidsson, P. Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda. *J. Manag. Stud.* **2006**, *43*, 917–955. [[CrossRef](#)]
2. Ahmad, Y.; Pirzada, D.S. Using Analytic Hierarchy Process for Exploring Prioritization of Functional Strategies in Auto Parts Manufacturing SMEs of Pakistan. *SAGE Open* **2014**, *4*, 2158244014553560. [[CrossRef](#)]
3. Hashim, N.A.B.; Raza, S.; Minai, M.S. Relationship between Entrepreneurial Competencies and Small Firm Performance: Are Dynamic Capabilities the Missing Link? *Acad. Strateg. Manag. J.* **2018**, *17*, 1–10.
4. Zhu, Q.; Cordeiro, J.; Sarkis, J. Institutional pressures, dynamic capabilities and environmental management systems: Investigating the ISO 9000—Environmental management system implementation linkage. *J. Environ. Manag.* **2013**, *114*, 232–242.
5. IK Seung, K. A study on the business ecosystem of German SMEs and its implications for Korean SMEs: Focusing on the hidden champion enterprises in Germany. *Korean J. Econ. Manag.* **2014**, *32*, 69–95.
6. Sherazi, S.K.; Iqbal, M.Z.; Asif, M.; Rehman, K.; Shah, S.H. Obstacles to small and medium enterprises in Pakistan. Principal component analysis approach. *Middle East J. Sci. Res.* **2013**, *13*, 1325–1334.
7. Beugré, C.D. *Building Entrepreneurial Ecosystems in Sub-Saharan Africa: A Quintuple Helix Model*; Palgrave Macmillan: London, UK, 2016.
8. Hyder, S.; Lussier, R.N. Why businesses succeed or fail: A study on small businesses in Pakistan. *J. Entrep. Emerg. Econ.* **2016**, *8*, 82–100. [[CrossRef](#)]
9. Messeni Petruzzelli, A.; Ardito, L.; Savino, T. Maturity of knowledge inputs and innovation value: The moderating effect of firm age and size. *J. Bus. Res.* **2018**, *86*, 190–201. [[CrossRef](#)]

10. Eisenhardt, K.M.; Martin, J.A. Dynamic Capabilities: What are they? *Strateg. Manag. J.* **2000**, *21*, 1105–1121. [[CrossRef](#)]
11. Ozcan, P.; Eisenhardt, K.M. Origin of Alliance Portfolios: Entrepreneurs, Network Strategies, and Firm Performance. *Acad. Manag. J.* **2009**, *52*, 246–279. [[CrossRef](#)]
12. Ford, D.; Gadde, L.E.; Håkansson, H.; Lundgren, A.; Snehota, I.; Turnbull, P.; Wilson, D.; Industrial Marketing and Purchasing Group. *Managing Business Relationships*; Wiley: Hoboken, NJ, USA, 2014.
13. Chung, H.F.L.; Yang, Z.; Huang, P.-H. How does organizational learning matter in strategic business performance? The contingency role of guanxi networking. *J. Bus. Res.* **2015**, *68*, 1216–1224. [[CrossRef](#)]
14. Guercini, S.; Ranfagni, S. Conviviality behavior in entrepreneurial communities and business networks. *J. Bus. Res.* **2016**, *69*, 770–776. [[CrossRef](#)]
15. Soda, G.; Usai, A.; Zaheer, A. Network Memory: The Influence of Past and Current Networks on Performance. *Acad. Manag. J.* **2004**, *47*, 893–906.
16. Hedvall, K.; Jagstedt, S.; Dubois, A. Solutions in business networks: Implications of an inter-organizational perspective. *J. Bus. Res.* **2019**, in press. [[CrossRef](#)]
17. Dangelico, R.M.; Pontrandolfo, P. Being ‘Green and Competitive’: The Impact of Environmental Actions and Collaborations on Firm Performance. *Bus. Strategy Environ.* **2015**, *24*, 413–430. [[CrossRef](#)]
18. Word, J. *Business Network Transformation: Strategies to Reconfigure Your Business Relationships for Competitive Advantage*; Wiley: Hoboken, NJ, USA, 2009; p. 279.
19. Machirori, T.; Fatoki, O. The Impact of Firm and Entrepreneur’s Characteristics on Networking by SMEs in South Africa. *J. Econ.* **2013**, *4*, 113–120. [[CrossRef](#)]
20. Guo, H.; Xu, H.; Tang, C.; Liu-Thompkins, Y.; Guo, Z.; Dong, B. Comparing the impact of different marketing capabilities: Empirical evidence from B2B firms in China. *J. Bus. Res.* **2018**, *93*, 79–89. [[CrossRef](#)]
21. Rodrigo-Alarcón, J.; García-Villaverde, P.M.; Ruiz-Ortega, M.J.; Parra-Requena, G. From social capital to entrepreneurial orientation: The mediating role of dynamic capabilities. *Eur. Manag. J.* **2018**, *36*, 195–209. [[CrossRef](#)]
22. Raza, S.H.; Minai, M.S.; Hashim, N.A.B. The Conceptual Framework in Examining the Influence of Relationship Competency on Small Firm Performance with the Mediating Role of Dynamic Capabilities. *J. Bus. Manag. Acct.* **2017**, *17*, 85–92.
23. Minai, M.S.; Ibrahim, Y.; Kheng, L.K. Entrepreneurial network in Malaysia: Are there any differences across ethnic groups? *J. Bus. Policy Res.* **2012**, *7*, 178–192.
24. Xu, H.; Guo, H.; Zhang, J.; Dang, A. Facilitating dynamic marketing capabilities development for domestic and foreign firms in an emerging economy. *J. Bus. Res.* **2018**, *86*, 141–152. [[CrossRef](#)]
25. Law, K.K. Firm Performance and Entrepreneurial Network: The Moderating Effect of Resources Factor in a Multiracial Country. Ph.D. Thesis, Universiti Utara Malaysia, Kedah Darul Aman, Malaysia, 2012.
26. Huang, H.-C.; Lai, M.-C.; Lo, K.-W. Do founders’ own resources matter? The influence of business networks on start-up innovation and performance. *Technovation* **2012**, *32*, 316–327. [[CrossRef](#)]
27. Thilenius, P.; Pahlberg, C.; Havila, V. *Extending the Business Network Approach: New Territories, New Technologies, New Terms*; Palgrave Macmillan: London, UK, 2016.
28. Li, H.; de Zubielqui, G.C.; O’Connor, A. Entrepreneurial networking capacity of cluster firms: A social network perspective on how shared resources enhance firm performance. *Small Bus. Econ.* **2015**, *45*, 523–541. [[CrossRef](#)]
29. Barney, J. Firm Resources and Sustained Competitive Advantage. *J. Manag.* **1991**, *17*, 99–120. [[CrossRef](#)]
30. Gunawan, T.; Jacob, J.; Duysters, G. Network ties and entrepreneurial orientation: Innovative performance of SMEs in a developing country. *Int. Entrep. Manag. J.* **2016**, *12*, 575–599. [[CrossRef](#)]
31. Wang, C.L.; Senaratne, C.; Rafiq, M. Success Traps, Dynamic Capabilities and Firm Performance. *Br. J. Manag.* **2014**, *26*, 26–44. [[CrossRef](#)]
32. Teece, D.J.; Pisano, G.; Shuen, A. Dynamic capabilities and strategic management. *Strateg. Manag. J.* **1997**, *18*, 509–533. [[CrossRef](#)]
33. Barreto, I. Dynamic Capabilities: A Review of Past Research and an Agenda for the Future. *J. Manag.* **2009**, *36*, 256–280. [[CrossRef](#)]
34. Jiang, X.; Liu, H.; Fey, C.; Jiang, F. Entrepreneurial orientation, network resource acquisition, and firm performance: A network approach. *J. Bus. Res.* **2018**, *87*, 46–57. [[CrossRef](#)]

35. Hughes, M.; Cesinger, B.; Cheng, C.F.; Schuessler, F.; Kraus, S. A configurational analysis of network and knowledge variables explaining Born Globals' and late internationalizing SMEs' international performance. *Ind. Mark. Manag.* **2017**. [CrossRef]
36. Pavlou, P.A.; El Sawy, O.A. Understanding the Elusive Black Box of Dynamic Capabilities. *Decis. Sci.* **2011**, *42*, 239–273. [CrossRef]
37. Rao, M.K.; Singh, B. Effect of intellectual capital on dynamic capabilities. *J. Organ. Chang. Manag.* **2016**, *29*, 129–149.
38. Ferguson, R.; Schattke, K.; Paulin, M. The social context for value co-creation in an entrepreneurial network: Influence of interpersonal attraction, relational norms and partner trustworthiness. *Int. J. Entrep. Behav. Res.* **2016**, *22*, 199–214. [CrossRef]
39. Kregar, T.B.; Antoncic, B. Entrepreneurial Networks: The Multiplexity of Exchange Content. In *Economic and Social Development: Book of Proceedings, 8th International Scientific Conference on Economic and Social Development and 4th Eastern European ESD Conference: Building Resilient Economy*; 2014; Available online: https://www.researchgate.net/profile/Vlora_Berisha2/publication/273643073_EFFECT_OF_CREATIVE_ACCOUNTING_ON_THE_COMPANY/links/551d36730cf23e2801fe0767.pdf#page=397 (accessed on 20 May 2019).
40. Parker, S.C. *The Economics of Entrepreneurship*; Cambridge University Press: Cambridge, UK, 2018.
41. Ardito, L.; Dangelico, R.M. Firm Environmental Performance under Scrutiny: The Role of Strategic and Organizational Orientations. *Corp. Soc. Responsib. Environ. Manag.* **2018**, *25*, 426–440. [CrossRef]
42. Wernerfelt, B. A resource-based view of the firm. *Strateg. Manag. J.* **1984**, *5*, 171–180. [CrossRef]
43. Greve, A.; Salaff, J.W. Social Networks and Entrepreneurship. *Entrep. Theory Pract.* **2003**, *28*, 1–22. [CrossRef]
44. Chell, E.; Baines, S. Networking, entrepreneurship and microbusiness behaviour. *Entrep. Reg. Dev.* **2000**, *12*, 195–215. [CrossRef]
45. Down, S. *Enterprise, Entrepreneurship and Small Business*; SAGE Publications: Thousand Oaks, CA, USA, 2010.
46. Palalić, R.; Dana, L.P.; Ramadani, V. *Entrepreneurship in Former Yugoslavia: Diversity, Institutional Constraints and Prospects*; Springer International Publishing: New York, NY, USA, 2018; p. 152.
47. Bratkovič Kregar, T.; Antončić, B. The relationship between the entrepreneur's personal network multiplexity and firm growth. *Econ. Res.-Ekonomika Istraživanja* **2016**, *29*, 1126–1135. [CrossRef]
48. Breat, J. *ECEI2009- 4th European Conference on Entrepreneurship and Innovation: ECEI2009*; University of Antwerp: Antwerp, Belgium, 2009; Volume 19, p. 58.
49. Gronum, S.; Verreynne, M.-L.; Kstelle, T. The Role of Networks in Small and Medium-Sized Enterprise Innovation and Firm Performance. *J. Small Bus. Manag.* **2012**, *50*, 257–282. [CrossRef]
50. Hoang, H.; Antoncic, B. Network-based research in entrepreneurship: A critical review. *J. Bus. Ventur.* **2003**, *18*, 165–187. [CrossRef]
51. Reese, P.R.; Aldrich, H. Entrepreneurial networks and business performance: A panel study of small and medium-sized firms in research triangle. In *International Entrepreneurial*; Birley, S., MacMillan, I.C., Eds.; Routledge: London, UK, 1995; Available online: https://www.researchgate.net/profile/Howard_Aldrich/publication/245024426_Entrepreneurial_Networks_and_Business_Performance/links/00b7d533e134ca92f3000000/Entrepreneurial-Networks-and-Business-Performance.pdf (accessed on 20 May 2019).
52. Sidek, N.Z.M.; Ali, S.M.; Ismail, M. *Proceedings of the ASEAN Entrepreneurship Conference 2014*; Springer: Singapore, 2015.
53. Landstrom, H. *Pioneers in Entrepreneurship and Small Business Research*; Springer: Singapore, 2007.
54. Longenecker, J.G.; Moore, C.W.; Petty, J.W. *Small Business Management: An Entrepreneurial Emphasis*; Thomson South-Western: Mason, OH, USA, 2003.
55. Aldrich, H.E.; Reese, P.R. Does networking pay off? A panel study of entrepreneurs in the research triangle. In *Frontiers of Entrepreneurship Research*; Center for Entrepreneurial Studies: Babson Park, FL, USA, 1994.
56. Watson, J. Modeling the relationship between networking and firm performance. *J. Bus. Ventur.* **2007**, *22*, 852–874. [CrossRef]
57. Batjargal, B. The dynamics of entrepreneurs' networks in a transitioning economy: The case of Russia. *Entrep. Reg. Dev.* **2006**, *18*, 305–320. [CrossRef]
58. Mole, K.; Ram, M. *Perspectives in Entrepreneurship: A Critical Approach*; Palgrave Macmillan: London, UK, 2011.

59. Golden, P.A.; Dollinger, M. Cooperative Alliances and Competitive Strategies in Small Manufacturing Firms. *Entrep. Theory Pract.* **1993**, *17*, 43–56. [[CrossRef](#)]
60. Zehir, C.; Can, E.; Karaboga, T. Linking Entrepreneurial Orientation to Firm Performance: The Role of Differentiation Strategy and Innovation Performance. *Procedia Soc. Behav. Sci.* **2015**, *210*, 358–367. [[CrossRef](#)]
61. Helfat, C.E.; Peteraf, M. Understanding Dynamic Capabilities: Progress along a Developmental Path. *Strateg. Organ.* **2009**, *7*, 91–102. [[CrossRef](#)]
62. Winter, S.G. Understanding dynamic capabilities. *Strateg. Manag. J.* **2003**, *24*, 991–995. [[CrossRef](#)]
63. Ambrosini, V.; Bowman, C.; Collier, N. Dynamic Capabilities: An Exploration of How Firms Renew their Resource Base. *Br. J. Manag.* **2009**, *20*, S9–S24. [[CrossRef](#)]
64. Furman, J.; Gawer, A.; Silverman, B.S.; Stern, S. *Entrepreneurship, Innovation, and Platforms*; Emerald Publishing Limited: Bingley, UK, 2017.
65. March, J.G. Exploration and Exploitation in Organizational Learning. *Organ. Sci.* **1991**, *2*, 71–87. [[CrossRef](#)]
66. Jörn, A. *Dynamic Capabilities at IBM*; Anchor Academic Publishing: Hamburg, Germany, 2016.
67. Akpobi, T.C. *Dynamic Capabilities and Strategic Management: Explicating the Multi-level Nature of Dynamic Capabilities: Insights from the Information Technology Security Consulting Industry*; University of Stirling: Stirling, UK, 2017.
68. Lenssen, G.G.; Smith, N.C. *Managing Sustainable Business: An Executive Education Case and Textbook*; Springer: Singapore, 2008.
69. Macher, J.T.; Mowery, D.C. Measuring Dynamic Capabilities: Practices and Performance in Semiconductor Manufacturing. *Br. J. Manag.* **2009**, *20*, S41–S62. [[CrossRef](#)]
70. Zollo, M.; Winter, S. Deliberate Learning and the Evolution of Dynamic Capabilities. *Organ. Sci.* **2002**, *13*, 339–351. [[CrossRef](#)]
71. Teece, D. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strateg. Manag. J.* **2007**, *28*, 1319–1350. [[CrossRef](#)]
72. Tseng, S.-M.; Lee, P.-S. The effect of knowledge management capability and dynamic capability on organizational performance. *J. Enterp. Inf. Manag.* **2014**, *27*, 158–179. [[CrossRef](#)]
73. Wu, L.-Y. Entrepreneurial resources, dynamic capabilities and start-up performance of Taiwan's high-tech firms. *J. Bus. Res.* **2007**, *60*, 549–555. [[CrossRef](#)]
74. Lin, Y.; Wu, L.-Y. Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *J. Bus. Res.* **2014**, *67*, 407–413. [[CrossRef](#)]
75. Eriksson, T. Processes, antecedents and outcomes of dynamic capabilities. *Scand. J. Manag.* **2014**, *30*, 65–82. [[CrossRef](#)]
76. Liao, J.; Kickul, J.R.; Ma, H. Organizational Dynamic Capability and Innovation: An Empirical Examination of Internet Firms. *J. Small Bus. Manag.* **2009**, *47*, 263–286. [[CrossRef](#)]
77. Liao, S.-H.; Wu, C.-C. System perspective of knowledge management, organizational learning, and organizational innovation. *Expert Syst. Appl.* **2010**, *37*, 1096–1103. [[CrossRef](#)]
78. Kato, M.; Okamuro, H.; Honjo, Y. Does Founders' Human Capital Matter for Innovation? Evidence from Japanese Start-ups. *J. Small Bus. Manag.* **2015**, *53*, 114–128. [[CrossRef](#)]
79. Aminu, M.I.; Mahmood, R. Mediating role of dynamic capabilities on the relationship between intellectual capital and performance: A hierarchical component model perspective in PLS-SEM path modeling. *Res. J. Bus. Manag.* **2015**, *9*, 443–456. [[CrossRef](#)]
80. Spillan, J.; Parnell, J. Marketing Resources and Firm Performance Among SMEs. *Eur. Manag. J.* **2006**, *24*, 236–245. [[CrossRef](#)]
81. Chaudhry, T.T. Relational Contracting in Pakistan's Surgical Instrument Cluster: An Empirical Study. *Pak. Dev. Rev.* **2010**, *49*, 213–237. [[CrossRef](#)]
82. Office, I.L. *General Conditions to Stimulate Job Creation in Small and Medium-Sized Enterprises*; International Labour Office: Geneva, Switzerland, 1997.
83. Sekaran, U.; Bougie, R. *Research Methods for Business: A Skill Building Approach*; John Wiley & Sons: Hoboken, NJ, USA, 2010.
84. Junaid, M.; Malik, R.N.; Pei, D.-S. Health hazards of child labor in the leather products and surgical instrument manufacturing industries of Sialkot, Pakistan. *Environ. Pollut.* **2017**, *226*, 198–211. [[CrossRef](#)]
85. Kline, R.B. *Principles and Practice of Structural Equation Modeling*, 4th ed.; Guilford Publications: New York, NY, USA, 2015.

86. Hu, L.T.; Bentler, P.M.; Kano, Y. Can Test Statistics in Covariance Structure Analysis Be Trusted? *Psychol. Bull.* **1992**, *112*, 351–362. [[CrossRef](#)] [[PubMed](#)]
87. Tabachnick, B.G.; Fidell, L.S. *Using Multivariate Statistics: Pearson New International Edition*; Pearson Education Limited: London, UK, 2013.
88. Bartholomew, D.J.; Knott, M.; Moustaki, I. *Latent Variable Models and Factor Analysis: A Unified Approach*; Wiley: Hoboken, NJ, USA, 2011.
89. Fursova, J. The ‘business of community development’ and the right to the city: Reflections on the neoliberalization processes in urban community development. *Community Dev. J.* **2016**, *53*, 119–135. [[CrossRef](#)]
90. Hall, P.C.M.; Müller, D.K.; Saarinen, P.J. *Nordic Tourism: Issues and Cases*; Channel View Publications: Bristol, UK, 2008.
91. Hair, J.F., Jr.; Hult, G.T.M.; Ringle, C.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; SAGE Publications: Thousand Oaks, CA, USA, 2013.
92. Vinzi, V.E.; Chin, W.W.; Henseler, J.; Wang, H. *Handbook of Partial Least Squares: Concepts, Methods and Applications*, 1st ed.; Springer: Berlin/Heidelberg, Germany, 2010; pp. 1–798.
93. Astrachan, C.B.; Patel, V.K.; Wanzenried, G. A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *J. Fam. Bus. Strategy* **2014**, *5*, 116–128. [[CrossRef](#)]
94. Hair, J.F., Jr.; Sarstedt, M.; Ringle, C.M.; Gudergan, S.P. *Advanced Issues in Partial Least Squares Structural Equation Modeling*; SAGE Publications: Thousand Oaks, CA, USA, 2017.
95. Ringle, C.M.; Sinkovics, R.R.; Henseler, J. The Use of Partial Least Squares Path Modeling in International Marketing. In *New Challenges to International Marketing*; Emerald Group Publishing Limited: West Yorkshire, UK, 2009; pp. 277–319.
96. Lowry, P.B.; Gaskin, J. Partial Least Squares (PLS) Structural Equation Modeling (SEM) for Building and Testing Behavioral Causal Theory: When to Choose It and How to Use It. *IEEE Trans. Profess. Commun.* **2014**, *57*, 123–146. [[CrossRef](#)]
97. Peterson, R.; Kim, Y. On the Relationship between Coefficient Alpha and Composite Reliability. *J. Appl. Psychol.* **2013**, *98*, 194. [[CrossRef](#)]
98. Henseler, J.; Ringle, C.M.; Sarstedt, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J. Acad. Mark. Sci.* **2015**, *43*, 115–135. [[CrossRef](#)]
99. Ringle, C.; Sarstedt, M.; Mitchell, R.; Gudergan, S.P. Partial Least Squares Structural Equation Modeling in Human Resource Management Research. *Int. J. Hum. Resour. Manag.* **2018**. [[CrossRef](#)]
100. Henseler, J.; Ray, P.A.; Hubona, G. Using PLS path modeling in new technology research: Updated guidelines. *Ind. Manag. Data Syst.* **2016**, *116*, 2–20. [[CrossRef](#)]
101. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*; Taylor & Francis: Oxfordshire, UK, 2013.
102. Le, S.; Kroll, M. CEO international experience: Effects on strategic change and firm performance. *J. Int. Bus. Stud.* **2017**, *48*, 573–595. [[CrossRef](#)]
103. Chinomona, R. Business Owner’s Expertise, Employee Skills Training And Business Performance: A Small Business Perspective. *J. Appl. Bus. Res.* **2013**, *29*, 1883. [[CrossRef](#)]
104. Anwar ul Haq, M.; Usman, M.; Hussain, N.; Anjum, Z.U.Z. Entrepreneurial activity in China and Pakistan: A GEM data evidence. *J. Entrep. Emerg. Econ.* **2014**, *6*, 179–193. [[CrossRef](#)]
105. Gan, B.C.; Gan, B.C.; Fraser, S.S.; Oke, A.; Anderson, A.R. A review of research methods in entrepreneurship 1985–2013. *Int. J. Entrep. Behav. Res.* **2015**, *21*, 291–315.
106. Tendai, C. Networks and Performance of Small and Medium Enterprises (SMEs) in Different Stages of the Life Cycle: A Case Study of a Small Business in the Netherlands. *J. Commun.* **2013**, *4*, 89–94. [[CrossRef](#)]
107. Anand, J.; Vassolo, R.S. An Examination of Dynamic Capabilities: Is Evolutionary Theory Underdetermined? *Manag. Res. J. Iberoam. Acad. Manag.* **2008**, *6*, 47–62.
108. Rindova, V.P.; Kotha, S. Continuous “Morphing”: Competing Through Dynamic Capabilities, Form, and Function. *Acad. Manag. J.* **2001**, *44*, 1263–1280.
109. Daniel, E.M.; Wilson, H.N. The role of dynamic capabilities in e-business transformation. *Eur. J. Inf. Syst.* **2003**, *12*, 282–296. [[CrossRef](#)]
110. Lee, J.; Lee, K.; Rho, S. An evolutionary perspective on strategic group emergence: A genetic algorithm-based model. *Strateg. Manag. J.* **2002**, *23*, 727–746. [[CrossRef](#)]

111. Durdyev, S.; Ismail, S.; Ihtiyar, A.; Bakar, N.F.S.A.; Darko, A. A partial least squares structural equation modeling (PLS-SEM) of barriers to sustainable construction in Malaysia. *J. Clean. Prod.* **2018**, *204*, 564–572. [[CrossRef](#)]
112. Wu, H.; Chen, J.; Jiao, H. Dynamic capabilities as a mediator linking international diversification and innovation performance of firms in an emerging economy. *J. Bus. Res.* **2016**, *69*, 2678–2686. [[CrossRef](#)]
113. Boso, N.; Adeleye, I.; Donbesuur, F.; Gyensare, M. Do entrepreneurs always benefit from business failure experience? *J. Bus. Res.* **2019**, *98*, 370–379. [[CrossRef](#)]
114. Anderson, B.S.; Kreiser, P.M.; Kuratko, D.F.; Hornsby, J.S.; Eshima, Y. Reconceptualizing entrepreneurial orientation. *Strateg. Manag. J.* **2015**, *36*, 1579–1596. [[CrossRef](#)]
115. Wales, W.J. Entrepreneurial orientation: A review and synthesis of promising research directions. *Int. Small Bus. J.* **2015**, *34*, 3–15. [[CrossRef](#)]
116. Dyer, J.H.; Nobeoka, K. Creating and managing a high-performance knowledge-sharing network: The Toyota case. *Strateg. Manag. J.* **2000**, *21*, 345–367. [[CrossRef](#)]
117. Autio, E.; Sapienza, H.J.; Almeida, J.G. Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth. *Acad. Manag. J.* **2000**, *43*, 909–924.
118. Wang, Z.; Kim, H.G. Can Social Media Marketing Improve Customer Relationship Capabilities and Firm Performance? Dynamic Capability Perspective. *J. Interact. Mark.* **2017**, *39*, 15–26. [[CrossRef](#)]
119. Lin, J.L.; Fang, S.C.; Fang, S.R.; Tsai, F.S. Network embeddedness and technology transfer performance in R&D consortia in Taiwan. *Technovation* **2009**, *29*, 763–774.
120. Abbas, J.; Aqeel, M.; Abbas, J.; Shaher, B.; Jaffar, A.; Sundas, J.; Zhang, W. The moderating role of social support for marital adjustment, depression, anxiety, and stress: Evidence from Pakistani working and nonworking women. *J. Affect. Disord.* **2019**, *244*, 231–238. [[CrossRef](#)] [[PubMed](#)]
121. Hussain, T.; Abbas, J.; Wei, Z.; Nurunnabi, M. The Effect of Sustainable Urban Planning and Slum Disamenity on The Value of Neighboring Residential Property: Application of The Hedonic Pricing Model in Rent Price Appraisal. *Sustainability* **2019**, *11*, 1144. [[CrossRef](#)]
122. Abbas, J.; Aman, J.; Nurunnabi, M.; Bano, S. The Impact of Social Media on Learning Behavior for Sustainable Education: Evidence of Students from Selected Universities in Pakistan. *Sustainability* **2019**, *11*, 1683. [[CrossRef](#)]



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