

# Uncertain Supply Chain Management

homepage: [www.GrowingScience.com/uscm](http://www.GrowingScience.com/uscm)

## The impact of career capital on sustainable competitive advantage: The mediating role of human resource management capabilities

Ahmad Ali Salih<sup>a</sup>, Zahraa Jafar Mousa<sup>a</sup> and Ahmad Yacoub Nasereddin<sup>a\*</sup>

<sup>a</sup>Faculty of business, business department, Middle East University, Amman, Jordan

### ABSTRACT

#### Article history:

Received November 18, 2022

Received in revised format

December 20, 2022

Accepted February 28 2023

Available online

February 28 2023

#### Keywords:

Career capital

Sustainable competitive advantage

Human resource management capabilities

This study aims to clarify the effect of career capital on the sustainable competitive advantage when human resource management's capabilities work as a mediator variable in construction companies specializing in concrete in Amman. The total number of companies are (23), the companies that showed cooperation and filled out the questionnaire were (17) companies. The study population consisted of (1400) employees from various administrative levels. Applying the study to the whole study population is difficult due to its large size; thus, a simple random sampling method is used. (302) questionnaires were distributed, the retrieved questionnaires valid for analysis were (250) and constituted of (83%). The unstructured interviews were adopted to define the study problem in the construction companies specialized in concrete. The questionnaire is the tool for measuring the study variables by collecting data and then analyzing those using descriptive and inferential statistics. The most important study results are that in the construction companies specialized in concrete industries in Amman; the level of career capital was high, and the level of sustainable competitive advantage was medium. At the same time, the results showed that the level of human resource management capabilities was high. The results also indicate that human resource management's capabilities partially mediate the impact of career capital and the sustainable competitive advantage. Human resource management's capabilities contributed to increasing this impact; this means that human resources management's capabilities play an essential role in activating the relationship between career capital and sustainable competitive advantage.

© 2023 Growing Science Ltd. All rights reserved.

### 1. Introduction

Competition has become one of the most critical challenges facing business companies at the local and global levels; this is the main reason that drives companies to achieve their competitive advantage and sustain it. To achieve sustainable competitive advantage, companies must search for means, methodologies and methods to accomplish that. The study of Zikic (2015) found that it is possible to achieve sustainable competitive advantage through career capital, representing one of the modern approaches in strategic human resources management. Career capital focuses on investing in the experiences, knowledge and skills of expatriates and skilled migrants and integrating them with local experiences. Lee et al. (2018) pointed out the impact of career capital on human resource management capabilities; this perspective is expanded to consider "dynamic capabilities" and how to develop them by studying international experience and career capital roles. Biemann and Braakmann (2013) added that career capital can be used to develop new ways of working and respond to environmental changes, which positively affects new capabilities development. Khandekar and Sharma (2005) reported that companies that use human resource management capabilities are likely to gain a sustainable competitive advantage and have outstanding performance because the company's capabilities are embedded in its members' collective knowledge. From this standpoint, this study came to examine the relationship of the impact of career capital on sustainable competitive advantage by introducing

\* Corresponding author

E-mail address [anasereddin@meu.edu.jo](mailto:anasereddin@meu.edu.jo) (A. Y. Nasereddin)

human resources management capabilities as an intermediate variable and applying it on construction industries companies specializing in concrete industries in the city of Amman.

The study's problem is summarized in the existence of a theoretical and field knowledge gap concentrated in the limited interest in sustainable competitive advantage and the lack of sufficient understanding to deal with it, as well as the loss of its relationship with career capital and human resource management capabilities. The study problem is identified from two sources, the literature based on previous studies and research and field visits through open and unstructured interviews with a group of construction industries specialized in concrete industries in Amman. The study of Huang et al. (2015) indicated that there are two types of the company's competitive advantage, the temporary competitive advantage, and the sustainable competitive advantage and that the company's possession of a temporary competitive advantage is not sufficient because it will be easy to imitate and can be replaced by other alternatives. Mahdi and Almsafir (2012) indicated in their study that when global competition becomes fierce, companies become concerned about maintaining a competitive advantage or achieving sustainable competitive advantage. Accordingly, companies must protect themselves from this competition and absorb new sources of skills, technologies and capabilities because they are the core of the company's performance. Some companies believe that they will remain competitive, sustainable, learning, and continuous improvement. Future studies warn against this belief and call for further investigation to determine the limitations and challenges facing the competitive advantage to reach factors and dimensions that contribute to its sustainability (Pratono et al., 2019).

Unstructured interviews were conducted with a group of construction industries companies specializing in concrete industries in the city of Amman. It was found that there is a field gap concentrated in the limited interest in sustainable competitive advantage and the lack of adequate understanding of it. A company's focus on the temporary competitive advantage is nothing more but about losing its relationship with career capital and human resource management capabilities.

The main objective of the current study is to diagnose the impact of career capital on the sustainable competitive advantage in the presence of human resource management capabilities as a **mediator** variable, through:

1. Provide a theoretical framework on the main study variables (career capital, sustainable competitive advantage, and human resource management capabilities) based on relevant literature and previous studies.
2. Determine the three main study variables (career capital, sustainable competitive advantage, and human resource management capabilities).
3. Determine the direct impact of career capital on the sustainable competitive advantage and the capabilities of human resources management and then determine the direct impact of human resources management's capabilities on the sustainable competitive advantage.
4. Diagnosis of the indirect impact of career capital on the sustainable competitive advantage in the presence of human resource management capabilities as an intermediate variable.

The study is of significant theoretical and practical importance. It can be explained as follows:

Research and learn more about the three primary variables (career capital, sustainable competitive advantage, and human resource management capabilities) to bridge part of the knowledge gap for these essential topics. Clarifying more of the sub-study concepts and dimensions and providing results that can be used in future studies. Research on providing management practitioners with information on how to develop career capital and its impact on the sustainability of competitive advantage and the variables affecting it, providing a broader understanding of the sustainable competitive advantage of companies and how to obtain and maintain it, and work to enhance investment in human resource management capabilities in the construction industries companies.

## 1.2 Study hypotheses

*The first main hypothesis:*

**H<sub>01</sub>:** *There is no statistically significant effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage at the level of statistical significance ( $\alpha \leq 0.05$ ) in the construction companies specialized in concrete industries in Amman.*

*The second main hypothesis:*

**H<sub>02</sub>:** *There is no statistically significant effect of career capital on human resources management's capabilities at the level of statistical significance ( $\alpha \leq 0.05$ ) in the construction companies specialized in concrete industries in Amman.*

**The third main hypothesis:**

**H<sub>03</sub>:** *There is no statistically significant effect of human resources management's capabilities on the sustainable competitive advantage at the level of statistical significance ( $\alpha \leq 0.05$ ) in the construction companies specializing in concrete industries in Amman.*

The fourth main hypothesis:

**H<sub>04</sub>:** There is no statistically significant effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage in the presence of human resource management capabilities as an intermediate variable ( $\alpha \leq 0.05$ ) in the construction companies specializing in concrete industries in Amman.

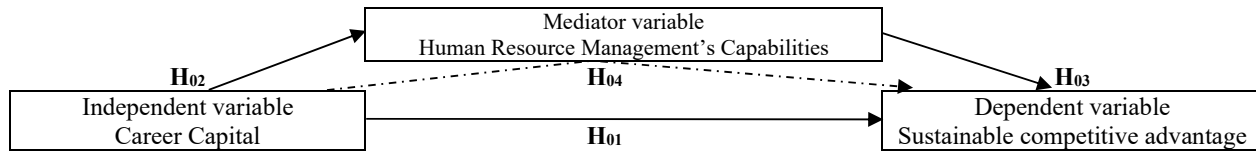


Fig. 1. The proposed study

## 2. Literature Review

### 2.1. Career Capital

This science, career capital, was called a career that has no limits, as both (DeFillippi & Arthur, 1994) showed through their study that career paths may include a series of job opportunities that go beyond the limits of individual employment as these were defined Career paths as limitless professions (professions that have no limits). Sutherland et al. (2015) defined it as the individual's negotiable capital between and within institutions that affects both human resource managers and knowledge workers. It is the challenge faced by both knowledge workers and human resources experts to build appropriate career capital. It is recognized for the benefit of both the employee and the organization to ensure highly talented employees' professional mobility. Career capital consists of three dimensions which are embodied in (know-who), (know-why) and (know-how), and Arthur et al. (1999) were the first to present a theoretical framework for the dimensions of career capital. The study by Zikic (2015) showed that career capital is a modern approach in strategic human resource management. It focuses on investing the experiences, knowledge and skills of skilled immigrants and combining them with local experiences. Future studies recommended concentrating on further research on the topic and how organizations can adopt and boost the career capital of skilled immigrants.

#### 2.1.1. Dimensions of career capital

##### 1-Knowing-who

These are interactive networks that can help managers solve complex problems. These networks enable managers and their companies to have strategic flexibility and organizational agility to access new resources, knowledge, and innovations (Garavan et al., 2016). It involves social relationships and contacts (Cappellen & Janssens, 2008). It is an opportunity to expand local and global social networks that have opened new avenues for pursuing professional development and advancement (Dickmann & Doherty, 2008).

##### 2-Knowing-how

The procedural knowledge includes how things are done, through which theories, models, and concepts in research and studies are transformed into an actual and applied reality that adds the best value in creating professional skills for workers, as this element of career capital is enhanced by the degree to which individuals can create and maintain a network to support their professional self-management (Kirk, 2016).

##### 3- Knowing-why:

It is called causal knowledge, as it requires a deeper understanding of the systems related to the work of the organization and the environmental relations across the fields of knowledge, as the interrelationships between things, problems and situations are deepened, and this knowledge requires refining the skills of employees and building a framework that can That the organization relies on him in making decisions and solving complex and uncertain problems, which are the incentives that drive individuals to adopt a proactive personality to overcome complications under conditions of uncertainty and to make right decisions when facing unknown circumstances for progress (Teece et al., 2016).

### 2.2 Sustainable competitive advantage (SCA)

The focus on sustainable competitive advantage began in the 1980s when Day (1984) explored strategies that might help "maintain a competitive advantage", it means the ability of the company to implement the set of steps necessary to achieve lower costs than the competition efficiently and uniquely, and to create differentiated value for buyers (Porter & Kramer, 1985), while Barney (1991) defined it as a unique feature that is difficult to imitate or obtain by competitors.

The purpose of Lee et al. (2016) was to find out the impact of corporate social responsibility capabilities and public relations on customer orientation and price premium. Which is the key to sustainable competitive advantage and concluded that corporate social responsibility works to improve customer orientation and increase the price premium.

### 2.2.1 Dimensions of sustainable competitive advantage

This study relied on the dimensions indicated by Lee et al. (2016). These dimensions are the key to the sustainable competitive advantage and are as follows:

**1. Customer Orientation:** These processes include understanding customers and adapting to their changing needs, measuring satisfaction, matching their needs with sales and marketing activities and striving to achieve their highest value (Rodriguez et al., 2015). Customer orientation refers to the degree to which the company obtains information from customers and develops a strategy that meets their needs. It gives high priority to the current and future needs of customers and extends its capabilities to predict their requests and respond to them, which contributes positively to its performance (Ziggers & Henseler, 2016).

**2. Price Premium:** The degree of intent to accept a product or service at an additional price (Palmatier et al., 2007). It depends on specific determinants that the company must have that distinguishes it from other companies: quality, uniqueness, and social responsibility, social image and thus significantly affect the price premium (Palmatier et al., 2007).

### 2.3. Human resource management capabilities (HRMC)

Nowadays, managers recognize the value of knowledge as an intangible asset that stimulates creativity and innovation. Organizational competencies are often embedded in human resources, as the company grants capable human resources through human resource management practices that aim to recruit, develop and motivate prominent candidates. And empowering them, as studies indicate that human resource management capabilities represent one of the ways to obtain scarce knowledge through its practices (Özbağ, Esen, & Esen, 2013). It is a framework that combines knowledge, information and management competencies to develop new ways of working and developing knowledge and learning activities to deal with various tasks, solve problems and make decisions, which helps companies achieve and maintain competitive advantages.

The study of Khandekar and Sharma (2005) aimed to know the role of human resource management capabilities in organizational performance and sustainable competitive advantage in global Indian organizations through experimental research on a random sample of 300 human resource managers from nine global Indian and foreign organizations. It concluded that investment in management capabilities Human resources give the company a sustainable competitive advantage.

Zikic (2015) aimed to provide an understanding of how to develop dynamic capabilities in multiple units by examining the roles of international experience and career capital, through a survey of a sample of 413 managers and concluded that the broad global expertise of managers could help develop the necessary knowledge in new environments. Improved work skills and expertise are linked to developing the knowledge aspect of career capital to overcome complexities and environmental uncertainty.

#### 2.3.1. Dimensions of human resource management capabilities

The dimensions that (Fabi, Lacoursière, Raymond, & St-Pierre, 2010; Uwizeyemungu, Raymond, Poba-Nzaou, & St-Pierre, 2018) indicated were approved in the current study being modern dimensions, precise in measurement, and subject to validity and reliability:

- 1- **Information Capability:** is the ability to provide accurate, timely and reliable data to all stakeholders that enable companies to form and adapt other organizational capabilities that may affect the performance of the company (Mithas, Ramasubbu, & Sambamurthy, 2011).
- 2- **Integration Capability:** practices aimed for attracting and retaining highly qualified employees (Uwizeyemungu et al., 2018), and it means employing workers whose skills are commensurate with the needs of the organization, defining their role clearly, allowing them to achieve their goals and support to increase their skills, and to provide stimulating compensation that appreciates the performance of the talented employee and that leads to improving the impact of the advanced manufacturing techniques on the company's productivity (Fabi et al., 2010).
- 3- **Participation Capability:** It is the role of human resources in participating in organizational decision making, which leads not only to increasing productivity and performance but also to improving the sustainability of companies (Farooq, Farooq, & Reynaud, 2019), as the concept of participation is no longer limited to the involvement of employees in some decisions and the presentation of opinions and idea as It was extended to involve employees in determining the future of the company by obtaining information that positively affects the profits and plans of the company.

### 3. Study methodology

The current study has a causal characteristic with a qualitative feature through interviews and quantitatively through questionnaires. It has adopted a descriptive-analytical research approach, as this approach is the most appropriate to achieve the current study's objectives, as the field of study consists of (23) construction industries sector companies specializing in concrete industries in the city of Amman. Except that the companies that agreed to fill out the questionnaire were (17) and constituted (74%). The study population consisted of all workers in the companies mentioned above and from various

administrative levels within the following positions (General Director, Deputy General Director, Department Director Unit manager, administrative employee, technical employee), the numbers were (1,400) individuals.

Given the large size of the study population and the difficulty of applying the study to it, the sampling method was used. The simple random sampling without replacement is adopted. As it is a probability sample; every individual has an equal and independent opportunity to be selected (i.e. gives equal chances for each individual of the study population) and is based on chance events such as random numbers as flip Coins, etc. The simple random sample without replacement is intended for each sample of individuals to have one chance to be chosen (Setia, 2016). The sample size was (302) individuals (Mulyani & Arum, 2016), as the sample is representative of the community, and its results can be generalized.

**Table 1**  
Distribution of the study sample according to demographic characteristics

Variables	Category	Frequency	Percentage %
Gender	Male	208	83.2
	Female	42	16.8
	Total	250	100.0
Age	Up to 30	103	41.2
	From 31 to less than 36	53	21.2
	From 36 to less than 41	67	26.8
	From 41 to less than 46	20	8.0
	46 or more	7	2.8
	Total	250	100.0
Education	High school or Community diploma	27	1.8
	First university degree (B.A.)	196	78.4
	Higher Diploma	23	9.2
	Master Degree	4	1.6
	Total	250	100.0
Position	General Manager	5	2.0
	Deputy General Manager	5	2.0
	Head of Department	59	23.6
	Unit Manager	47	18.8
	Administrative employee	92	36.8
	Technical employee	42	16.8
	Total	250	100.0
Experience	Up to 5 years	88	35.2
	From 6 to 10 years	81	32.4
	From 11 to 15 years	62	24.8
	16 years or more	19	7.6
	Total	250	100.0

### 3.1. The validity of the study instrument

Face validity, Convergent Constructive Validity, and differential validity were used.

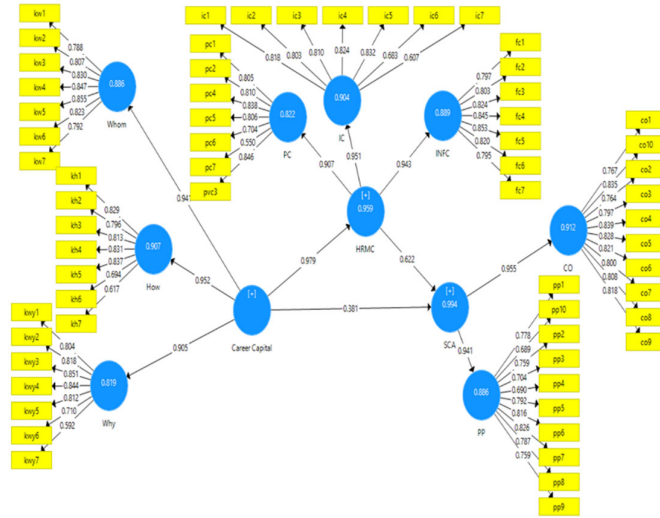
#### 3.1.1. Face validity

The face validity is sought by presenting the questionnaire to a group of expert academic referees specializing in business administration in Jordanian universities.

#### 3.1.2. Convergent Constructive Validity: through exploratory and confirmatory validity

Factor loading is used through the Smart Partial Least Square (PLS) 3.0 program to verify the extent of saturation of the paragraphs of each dimension of the study variables on their dimensions to which they belong and identify the indicators of the quality of the study data. It is known that the indicators for judging the quality of the model are many. The study relied on a set of indicators used by most of the studies analyzed using the Smart Partial Least Square PLS (3.0) program.

Fig. 2. presents the results of the confirmatory factor analysis, as it shows the saturation of the paragraphs of each dimension of the study variables in their respective dimensions represented by the independent variable: career capital (know-who, know-how, know-why), as The lowest value reached is (0.592), and the dependent variable: sustainable competitive advantage (customer orientation and price premium), where it is noticed that the lowest value reached is (0.689), and the mediating variable: human resource management capabilities (Information Capability, Integration Capability and Participation Capability) The lowest value reached is (0.550). All these values were more significant than (0.40 in the confirmatory factor analysis). They are considered acceptable and sufficient for this study's three-factor variables (Hair et al., 2010).



**Fig. 2.** Scheme of the results of the PLS3 software used for Convergent Constructive Validity through confirmatory factor analysis

3.2. Reliability of the instrument

The Cronbach-Alpha test confirmed the reliability of the instrument to ensure internal consistency.

**Table 2**

Results of the reliability of the study areas by using (Cronbach Alpha) (CA) and Split-Half Coefficient and the Composite Reliability (CR) the AVE index

Main variables	Sub Variables	Number of Items	Value of CA	Split half*	CR	AVE
Career Capital (Independent Variable)	Know who	7	0.918	0.908	0.931	0.576
	Know how	7	0.913	0.894	0.931	0.658
	Know why	7	0.921	0.898	0.937	0.680
	Career capital	21	0.959	0.899	0.962	0.548
Sustainable competitive advantage (dependent variable)	Customer orientation	10	0.957	0.900	0.961	0.541
	Price premium	10	0.918	0.881	0.932	0.578
	Sustainable competitive advantage	20	0.957	0.881	0.961	0.553
Capabilities of human resources management (mediation variable)	Information capability	7	0.921	0.881	0.937	0.680
	Integration capability	7	0.913	0.900	0.931	0.658
	Participation Capability	7	0.937	0.908	0.948	0.725
	Human resource management capabilities	21	0.921	0.877	0.936	0.678

\* These are the results of the instrument reliability test after correcting it with (Spearman-Brown) coefficient

Table 2 shows the results of the reliability of the study variables. It is found that the lowest value obtained through examining the reliability through the internal consistency method reached (0.913). This value is achieved in the field of “know-how” “technical knowledge” and the field of “integration”. As for the stability values calculated by the Split-Half Coefficient method, the minimum value for this method was (0.881) in the field of “price premium” and in the area of “information portability”. As for Composite Reliability, the lowest value reached was (0.931). In the field of “know-who”, “know-how” and “inerrability”. These results indicate high stability of the paragraphs of each of the three variable domains:

The independent, dependent and mediator are higher than (0.70) (Hair et al., 2010). As for the interpreted variance values (AVE), it is noticed that the lowest value reached was (0.541) in the field of "customer orientation" and where the lowest value was greater than (0.50), which represents the minimum acceptance of the variance values extracted relative to one paragraph. Therefore, each field's sections shown in the table are considered valid and able to explain the variance in this field with a minimum of (50.0%).

4. Analysis of study data and hypothesis testing

4.1. Description of the responses and estimates of the study sample for the dimensions of the study variables

4.1.1 Description of the study sample's responses and estimates for the dimensions of the study variables (career capital, sustainable competitive advantage, human resource management capabilities).

Table 3 shows the values of the mean, the standard deviations and the value of the t-test for the main study variables and their dimensions, as it shows the results of the analysis to describe the career capital and its dimensions (know-who, know-how,

and know-why). Professional money (3.98) and this value is considered to have achieved a high level according to the rating measure used; it was found that the total score for the “know-from” dimension reached (4.08) and that the total score for the “know-how” dimension was (3.98). It is also found that the total score for the “know-why” dimension reached (3.90). They achieved a high level according to the rating scale used, which means that these companies have a high level of diversity in their human resources and invest in their intangible assets in the knowledge, skills and experience of their employees.

**Table 3**

Mean standard deviations, and t-test value of the study variables and their dimensions (career capital, sustainable competitive advantage, human resource management capabilities)

<b>Career Capital</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>t-value</b>	<b>Level</b>
Know who	4.08	0.81	21.12	High
Know how	3.98	0.78	19.85	High
Know why	3.90	0.79	17.91	High
General Mean for Career capital	3.98	-	21.75	High
<b>Sustainable competitive advantage</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>t-value</b>	<b>Level</b>
Customer Orientation	3.13	0.73	24.51	Medium
Price Premium	3.07	0.70	24.06	Medium
General Mean for Sustainable competitive advantage	3.1	-	25.7	Medium
<b>Human Resources Management's capabilities</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>t-value</b>	<b>Level</b>
Information capability	3.97	0.73	20.94	High
Integration capability	3.81	0.88	14.53	High
Participation Capability	3.82	0.89	14.61	High
General Mean for Human Resources Management's capabilities	3.87	-	18.45	High

By reviewing the t-test values in Table 3 for professional capital and its dimensions (know-who, know-how, know-why); it is found that these values reached (21.75) which is greater than the tabular value (0.05). This indicates that the averages' values were far from neutral and towards approval in a high degree. Table 3 also shows the results of the analysis to describe the sustainable competitive advantage. Its dimensions (customer orientation and price premium), where the general arithmetic average value for the dimensions of the sustainable competitive advantage reached (3.1), are considered to have achieved an average level according to the rating measure used. It is found that the value of the overall dimension of “customer orientation” has reached (3.13). And the overall score for the "price premium" dimension has reached (3.07). These values are classified as a medium degree. This indicates a gap concentrated in the limited interest in sustainable competitive advantage and the lack of sufficient understanding to deal with it.

By reviewing the t-test values included in Table 3 for sustainable competitive advantage and its dimensions (customer orientation and price premium); it is found that all of these values reached (25.7) which are greater than the tabular value (0.05). This indicates that the values of the averages expressed through the study sample members were far from neutral and towards approval by a moderate degree.

Table 3 shows the results of the analysis to describe the capabilities of human resources management and its dimensions (information portability, integration ability, ability to participate), as the general arithmetic average of the dimensions of human resource management capabilities reached (3.87). This value is considered to have achieved a high level according to the classification measurement used.

It is found that the value of the total score for the “information capacity” dimension was (3.97). The “integration ability” dimension is (3.81). The total score value for the “ability to participate” dimension reached (3.82). These values are classified as high; this means that these companies possess distinct capabilities compared to competitors represented by the knowledge, skills, and experience of employees in addition to high-quality modern technological resources that provide accurate information to make decisions and plan on time.

Reviewing the values of the t-test in Table 3 for the capabilities of human resources management and their dimensions (information portability, integration ability, ability to participate); it is found that these values reached (18.45) which is greater than the tabular value 0.05. This indicates that the averages' values were far away from impartiality and towards approval in a high degree.

#### 4.2. Analyze the suitability of the study data to test hypotheses

The suitability of the data to two conditions of the multiple regression analysis conditions, namely the degree of multiple linear correlations between the independent variables and the mediator, in addition to ensuring that the data behave as the behavior of a normal distribution was made sure of the suitability of the data to two conditions of the multiple regression analysis. As for the normal distribution test using the Kolmogorov-Smirnov test (KS), the following are the results of these tests.

**Table 4**

The results of the test of Variance Inflation Factor (VIF) and the standardized variance test (Tolerance) for the independent and median variables and the KS test for the three variables (independent, mediator and dependent)

The Variables		Variance Inflation Factor (VIF)	variance test (Tolerance)	KS test
Independent (Career Capital)	Know who	2.301	.435	.140
	Know how	2.983	.335	.143
	Know why	2.575	.388	.094
Mediator (Human Resources Management's capabilities)	Information capability	1.747	.572	.123
	Integration capability	3.267	.306	.105
	Participation Capability	2.940	.340	.140
Dependent (sustainable Competitive Advantage)	Customer Orientation			.067
	Price Premium			.091
	Sustainable Competitive Advantage			.186

Table 4 shows that the values of the variance inflation factor did not exceed (10) (Biemann & Braakmann, 2013). Also, the KS test values of the normal distribution were greater than 0.05, which indicates acceptance of the null test hypothesis, which is the hypothesis that there are no differences between the data distribution and the normal distribution, i.e. the congruency hypothesis.

4.3. Hypotheses testing

The first main hypothesis:

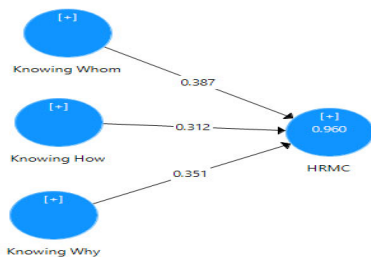
**H<sub>01</sub>:** There is no statistically significant effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage at the level of statistical significance ( $0.05 \geq \alpha$ ) in the construction companies specializing in concrete industries in Amman.

**Table 5**

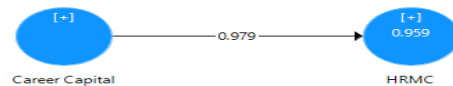
Analysis of the hypothesis of the impact of career capital (know-who, know-how, know-why) on the sustainable competitive advantage

The direction of impact		The value of impact coefficient $\beta$	t-value	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>
Know who	→ sustainable Competitive Advantage	0.365	11.675	0.000	0.979	0.976
Know how	→ sustainable Competitive Advantage	0.361	24.768	0.000		
Know why	→ sustainable Competitive Advantage	0.334	13.171	0.000		

Table 5 shows the results of the test of the first main hypothesis: the impact of career capital (know-who, know-how, know-why) on the sustainable competitive advantage, and by reviewing the impact values, it appears that they reached (0.365) for the field (know-who) and reached (0.361) for (know-how) dimension and reached (0.334) for (know-why) dimension. By reviewing the significance values of t (standard) effect coefficients, it is found that all the significance level values were less than 0.05, indicating the importance and significance of the impact values that were reached as noted. The ratio of these (three) variables explains (97.9%) of the variance of the variable, and this ratio reached (97.6%) through the modified coefficient of determination value index. Accordingly, through the results shown in Table 5, the null study's hypothesis is rejected, and the alternative hypothesis accepted.



**Fig. 3.** The results of testing this hypothesis through the Smart PLS 3 software outputs



**Fig. 4.** Career capital impact coefficients for a sustainable competitive advantage

The second main hypothesis:

**H<sub>02</sub>:** There is no statistically significant effect of career capital (know - who, know-how, know - why) on human resources management's capabilities at the level of statistical significance ( $0.05 \alpha a$ ) in the construction companies specialized in concrete industries in the city of Amman.



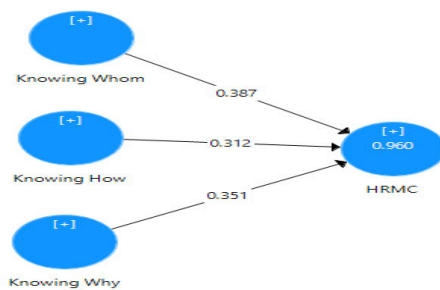
Table 6 shows the results of the second main hypothesis test of the effect of career capital (know-who, know-how, know-why) on human resources management capabilities. By reviewing the impact values, it appears that they reached (0.387) for (know-who) dimension and reached (0.312) for the (know-how) dimension and (0.351) for (know-why) dimension. By reviewing the values of the (standard) impact coefficients, it becomes clear that all the significance level values were less than 0.05, indicating the importance and significance of the impact values. It is noticed that the ratio of these (three) variables explain (96.0%) of the variance of the variable and that this percentage reached (95.9%) through the modified coefficient of determination value index.

**Table 6**

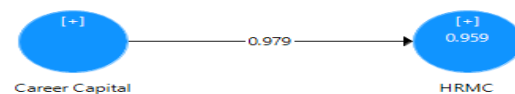
Analysis of the hypothesis of the impact of professional capital (know who, know-how, know why) on the capabilities of human resources management

The direction of impact		The impact coefficient $\beta$	t-value	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>
Know who	→	Human resources management's capabilities	0.387	9.994	0.000	
Know how	→	Human resources management's capabilities	0.312	12.222	0.000	0.960
Know why	→	Human resources management's capabilities	0.351	11.782	0.000	
Career Capital	→	Human resources management's capabilities	0.979	114.730	0.000	0.587

The significance was less than 0.05, which indicates the importance and relevance of the impact values that is reached. It is noted that the ratio of these (three) variables explains (96.0%) of the variance of the variable. This percentage reached (95.9%) through the value of the determination factor Modified. When reviewing the value of the total effect of the independent variable (career capital) on the mediating variable (the capabilities of human resources management), it becomes clear that the value of this effect has reached (0.979). This value is statistically significant because the value of the path's level of significance was less than 0.05, indicating the importance and essentiality. This effect is statistically speaking. The determination factor's value also shows that the career capital explains (58.7%) of the moderator variable variance. Accordingly, through the results shown in Table 6, the null study's hypothesis is rejected, and the alternative hypothesis accepted. Fig. 5 shows a chart of the results of testing this hypothesis through the Smart PLS 3 software outputs. Fig. 6 illustrates the overall effect of career capital on human resources management's capabilities.



**Fig. 5.** Factors for the impact of career capital on human resource management's capabilities



**Fig. 6.** Factors of the overall effect of career capital on human resources management's capabilities

### The third main hypothesis

**H<sub>03</sub>:** There is no statistically significant effect of human resource management's capability (information capability, integration capability, and participation capability) on the sustainable competitive advantage at the statistical significance level (0.05  $\alpha$ ) in the construction companies specialized in concrete in the city of Amman.

**Table 7**

Analysis of the hypothesis of the impact of human resource management's capability (Information capability, Integration capability, and Participation capability) on the sustainable competitive advantage

The direction of impact		The value of $\beta$	t-value	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>
Information capability	→	Sustainable competitive advantage	0.346	11.654	0.000	
Integration capability	→	Sustainable competitive advantage	0.382	25.178	0.000	0.989
Participation capability	→	Sustainable competitive advantage	0.337	20.661	0.000	
human resource management's capability	→	Sustainable competitive advantage	0.994	243.543	0.000	0.449

Table 7 shows the results of the third main hypothesis test of the effect of human resource management's capability (Information capability, Integration capability, and Participation capability) on the sustainable competitive advantage. By reviewing the impact values, it appears that they reached (0.346) for (Information capability) dimension and reached (0.382) for the (Integration capability) dimension and (0.337) for (Participation capability) dimension. By reviewing the (standard) impact coefficients' values, it becomes clear that all the significance level values were less than 0.05, indicating the importance

and significance of the impact values. It is noticed that the ratio of these (three) variables explain (98.9%) of the variance of the variable and that this percentage reached (98.0%) through the modified coefficient of determination value index. By reviewing the value of the overall impact for the mediator variable (human resource management's capability) on the dependent variable (the sustainable competitive advantage); it is found that the value of this effect is (0.994). This value is considered statistically significant because the path value level is less than 0.05, which is statistically important and significant. The coefficient of determination value shows that human resource management's capability explains (44.9%) of the dependent variable. Accordingly, through the results shown in Table 7, the null study's hypothesis is rejected, and the alternative hypothesis accepted. Fig. 7 shows a chart of the results of testing this hypothesis through the Smart PLS 3 software outputs. Fig. 8 shows the parameters of the overall impact of managing human resource capabilities on the sustainable competitive advantage.



Fig. 7. Factors for the impact of human resource management's capability (information capability, integration capability, and participation capability) on the sustainable competitive advantage

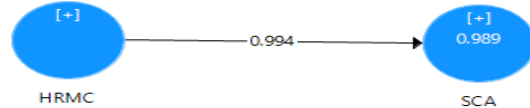


Fig. 8. Factors for the overall impact of managing human resource capabilities on the sustainable competitive advantage

Fourth main hypothesis

**H<sub>04</sub>:** *There is no statistically significant effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage in the presence of human resource management capabilities as an intermediate variable at the level of statistical significance (0.05 ≥ α) in the construction companies specialized in concrete industries in the city of Amman.*

Table 8

The direct impact of career capital on the sustainable competitive advantage in the presence of human resource management capabilities as an intermediate variable

The Variables	Type of effect	The value of impact coefficient β	t-value	Sig.	R <sup>2</sup>	Adjusted R <sup>2</sup>
Career Capital → Sustainable competitive advantage	Direct	0.380	2.629	0.009	human resource management's capability 0.959	human resource management's capability 0.957
Career capital → human resource management's capability	Direct	0.979	104.606	0.000	Sustainable competitive advantage 0.994	Sustainable competitive advantage 0.992
Human resource management's capability → Sustainable competitive advantage	Direct	0.622	4.304	0.000		
Career capital → Sustainable competitive advantage	Indirect	0.610	4.279	0.000		

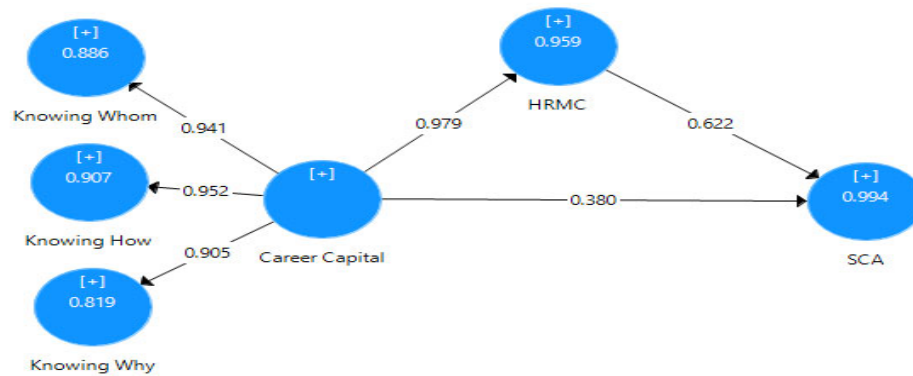
Table 8 shows that the value of the indirect impact of career capital on the sustainable competitive advantage in the presence of human resources management capabilities as a mediator variable reached (0.610). This indicates that human resources management's capabilities play a mediating role in the relationship between career capital and sustainable competitive advantage. This shows the rejection of the fourth null hypothesis and acceptance of the alternative hypothesis. The SOBEL test was used to determine the significance of the mediating variable's indirect effect value, in addition to the indicator for determining the nature and quality of the effect of the variable variance calculated for (Variance Accounted for).

Table 9

Sobel test for significance of the indirect effect values of the mediating variable

Direction of effect	The value of the indirect Effect	The value of the direct effect	The overall effect	Sobel test	Significant	(VAF)	The type of effect
The independent on the dependent with the existence of the mediator	0.610	0.380	0.990	10.31	0.0000	0.616	Partial

Table 9 indicates the mediating variable's indirect effect in the relationship between the independent and dependent variables reached (0.610). The SOBEL test result is (10.31); this value is considered statistically significant because the indication of the test reached (0.000), which is less than 0.05, this means that the indirect effect value was accepted statistically, as Table (9) shows that the value of the variance calculated for (Variance Accounted for) reached (61.6%). This value reflects the nature of the mediator variable's partial effect because it was (greater than 20 and less than 80) (Hair et al., 2014, 224-225).



**Fig. 9.** Transactions of the impact of career capital (know-who, know-how, know-why) on the sustainable competitive advantage by the existence of human resource management capabilities as a mediator variable

## 5. Discussion and recommendations

### 5.1. Descriptive results of the study variables

*The first subject: Analyzing the answers to the independent variable and its dimensions, which is the career capital (know-who, know-how, know-why)*

The results showed that the dimensions of the career capital in the construction companies specializing in concrete industries in Amman are of high importance. The results showed that “know-who” has the highest level, as its mean reached (4.08). And the “know-how” dimensions has a mean of (3.98). The results also showed that “know-why” achieved a high level too, where the mean reached (3.90). These results indicate that these companies have a high level of diversity in their human resources and depend on successful experiences and are interested in job analysis. Workers were encouraged to develop their knowledge and change their behavior to suit different work situations and know the strengths and weaknesses to select the people qualified to fill the positions.

*The second subject: Analysis of the answers to the dependent variable in its dimensions represented by sustainable competitive advantage (customer orientation, price premium)*

The results showed that the dimensions of the sustainable competitive advantage in the construction companies specializing in concrete industries in the city of Amman are medium. The results showed that the “customer orientation” dimension occurred at an average level, where the dimension's arithmetic mean reached (3.13). It was found that the “price premium” dimension achieved a medium effect where the mean reached (3.07). The sample members' point of view shows a gap in the limited interest in a sustainable competitive advantage and a lack of sufficient understanding to deal with this dimension. The companies' focus is on the temporary competitive advantage. The companies did not pay much attention to after-sales services to measure customer satisfaction and create value. Furthermore, they did not focus on social responsibility, which is one of the crucial issues of the price premium, because it is used to justify the price differences between brands.

*The third subject: analyzing the answers to the mediating variable in its dimensions represented by the capabilities of human resources management (information portability, integration ability, and ability to participate)*

The results showed that the dimensions of the human resource management capabilities in the construction companies specializing in concrete industries are powerful. The “information capacity” dimension achieved a high level with a mean of (3.97). The results also showed that the “integration ability” dimension achieved a high degree as it reached the mean (3.81). It was found that the mean of “ability to participate” achieved a high score, as it reached (3.82). The sample members' viewpoint is that the companies possess distinct capabilities compared to competitors represented by the knowledge, skills and experiences. The companies qualify their employees to participate in decisions making. In addition to financial resources; the management seeks to attract and retain highly qualified employees to fill the required positions. Advanced information technology and accurate data also aid in decision-making.

## 5.2. Discussion

1. The statistical analysis results for the first main hypothesis indicate a rejection of this hypothesis and acceptance of the alternative hypothesis. As it was found that there is a direct, statistically significant effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage at the level of statistical significance ( $\alpha \leq 0.05$ ) in construction companies specializing in concrete industries in the city of Amman. It is evident that the career capital gives companies a sustainable competitive advantage through highly skilled and diverse expatriates. Diversity is the primary source of career capital; this result agrees with the findings of (Zikic, 2015), who suggested that a sustainable competitive advantage can be achieved through career capital which stems from skilled expatriates as it is an essential source of human resource growth in the current knowledge economy in many parts of the world, where he focused on the value of diversity as a source of sustainable competitive advantage.
2. The statistical analysis of the second main hypothesis indicates rejection of this hypothesis and acceptance of the alternative hypothesis. It was found that there is a statistically significant effect of career capital (know-who, know-how, know-why) on the capabilities of human resources management at the level of statistical significance ( $0.05 \alpha$ ) in the construction companies specializing in concrete industries in the city of Amman. This indicates that these companies realize the value of knowledge as an intangible asset in their human resources. This result is consistent with the work of (Po-Yen-Lee, 2018) on how to develop capabilities by studying the roles of broad international experience that help to build the necessary knowledge in new environments as work skills and knowledge are linked to the development of the knowledge aspect of the career capital required to overcome uncertainty.
3. The results of the statistical analysis of the third main hypothesis indicate the rejection of this hypothesis and the acceptance of the alternative hypothesis, as it was found that there is a direct, statistically significant effect of the viability of human resources management (information portability, integration ability, and ability to participate) on the sustainable competitive advantage at the level of statistical significance ( $0.05 \geq \alpha$ ) in companies. The construction industry specialized in concrete industries in the city of Amman, which indicates that companies possess innovative capabilities and tacit knowledge represented in the skills and experiences of their employees in addition to the financial and technological resources and that these capabilities enable companies to achieve sustainable competitive advantage.

Khandekar and Sharma (2005) showed that companies that use human resource management capabilities are likely to gain a sustainable competitive advantage and enjoy outstanding performance because the company's capabilities are embedded in its members' collective knowledge. This result is consistent with the work of (Foon, 2009) that all forms of Intangible resources are potential sources of sustainable competitive advantage.

4. The statistical analysis of the fourth main hypothesis indicates a rejection of this hypothesis and acceptance of the alternative hypothesis. It was found that there is an indirect effect of career capital (know-who, know-how, know-why) on the sustainable competitive advantage in the presence of human resource management capabilities as a mediator variable at the level of Statistical significance ( $0.05 \geq \alpha$ ) in construction companies specialized in concrete industries in the city of Amman. This indicates that human resource management capabilities play a mediating role in the relationship between career capital and sustainable competitive advantage. It has a significant and positive impact by activating the relationship between these variables by investing in workers' expertise, knowledge, skills, and diversity, consisting of a mixture of global and local capabilities. These are sources of sustainable competitive advantage, which means that companies that seek to perpetuate their competitive advantage must be strengthened. Investing in human resource management capabilities and career capital is required. This result agreed with the study of (Barney, 1991), who suggested that companies can create a sustainable competitive advantage if they have superior resources with organizational capabilities. This combination represents the best obstacle to competitors. The study of (Morris, Snell, & Wright, 2006) agreed with the statistical analysis results that human resource management capabilities are a competitive advantage and that considering human resources as a source of sustainable competitive advantage makes companies more responsive to external pressures.

## 5.3. Recommendations

After analyzing the data, testing hypotheses, and discussing and interpreting the results, the study presents the following recommendations and proposals:

1. There is a need to enhance investment in career capital in concrete industries companies and each of its dimensions by increasing interest in managing diversity because of its importance in overcoming the challenges facing companies at the local and global level, especially in the sustainability of competitive advantage.
2. Maximizing the "know-from" dimension of career capital through the concrete industries companies owning networks of relationships and contacts inside and outside the company, and motivating workers to develop procedural

knowledge (knowledge-how) and its impact through knowledge sharing, training and apprenticeships, and enhancing work and performance. In the "knowing-why" dimension through self-knowledge and personal development.

3. Work to develop the current level of competitive advantage by dealing with the specific needs of customers and society as a whole and providing services with a quality that exceeds competitors through accurate performance and taking social responsibility as part of the organization's culture and work, and the need to educate about the difference between sustainable competitive advantage and temporary competitive advantage. Through meetings, training workshops and field practices.
4. There is a need to enhance and develop human resource management capabilities and their dimensions because of their essential role in activating the relationship between career capitals and achieving sustainable competitive advantage. This can be achieved by providing workshops and appropriate training and participating in training courses outside the country to gain new employees' experiences, skills, and knowledge.
5. There is a need to invest in career capital and human resource management capabilities to sustain a competitive advantage. This can be achieved through the companies' vast experiences in their field of industry, selecting qualified persons to carry out the organization's work and motivating them to delve into knowledge using advanced information technology and giving individuals with distinct capabilities a priority for occupying leadership positions and stimulating participation in decision-making processes at all administrative levels.

#### *Delimitations of the study*

1. Spatial boundaries: in the 23 construction companies specialized in concrete industries in Amman.
2. Temporal limits: This study was applied during the 2019 academic year.
3. Human Limits: This study was applied to the selected sample members in construction industries companies in Amman under the following job titles (General Manager, Deputy General Manager, Department Manager, Unit Manager, Administrative Officer, and Technical Officer).

#### *Limitations of the study*

The limitations of the current study are summarized in the following aspects:

- 1- The current study was applied to the construction industries companies sector in Amman, and thus the results may not be generalized to other industries.
- 2- This study's results and the possibility of generalization are based on the questionnaire's validity and reliability and the accuracy and objectivity of the response of the examined sample.

#### *Future studies*

1. Examination of career capital, sustainable competitive advantage, and human resource management capabilities with different and new dimensions of sustainable competitive advantage.
2. Conducting studies on the impact of career capital with other variables that differ from the current study variables, such as strategic creativity, strategic agility and flexibility.

#### **Acknowledgement**

The authors are grateful to the Middle East University Amman, Jordan for the financial support granted to cover the participation in the publication fee this research article.

#### **References**

- Arthur, M., Inkson, K., & Pringle, J. (1999). *The new careers: Individual action and economic change*: Sage.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Biemann, T., & Braakmann, N. (2013). The impact of international experience on objective and subjective career success in early careers. *The International Journal of Human Resource Management*, 24(18), 3438-3456.
- Cappellen, T., & Janssens, M. (2008). Global managers' career competencies. *Career Development International*, 13(6), 514-537.
- DeFillippi, R. J., & Arthur, M. B. (1994). The boundaryless career: A competency-based perspective. *Journal of organizational behavior*, 15(4), 307-324.
- Dickmann, M., & Doherty, N. (2008). Exploring the career capital impact of international assignments within distinct organizational contexts. *British Journal of Management*, 19(2), 145-161.
- Fabi, B., Lacoursière, R., Raymond, L., & St-Pierre, J. (2010). HRM capabilities as a determinant and enabler of productivity for manufacturing SMEs. *Human Systems Management*, 29(3), 115-125.

- Farooq, O., Farooq, M., & Reynaud, E. (2019). Does employees' participation in decision making increase the level of corporate social and environmental sustainability? An investigation in South Asia. *Sustainability*, 11(2), 511.
- Foon, L. S. (2009). CAPABILITIES DIFFERENTIALS AS SOURCES OF SUSTAINABLE COMPETITIVE ADVANTAGE. *International Journal of Business & Society*, 10(2).
- Garavan, T., Shanahan, V., Carbery, R., & Watson, S. (2016). Strategic human resource development: Towards a conceptual framework to understand its contribution to dynamic capabilities. *Human Resource Development International*, 19(4), 289-306.
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis: A Global Perspective*, 7th edn (Uppersaddle River, NJ: Pearson Prentice Hall).
- Huang, K. F., Dyerson, R., Wu, L. Y., & Harindranath, G. (2015). From temporary competitive advantage to sustainable competitive advantage. *British Journal of Management*, 26(4), 617-636.
- Khandekar, A., & Sharma, A. (2005). Managing human resource capabilities for sustainable competitive advantage: An empirical analysis from Indian global organisations. *Education+ Training*.
- Kirk, S. (2016). Career capital in global Kaleidoscope Careers: the role of HRM. *The International Journal of Human Resource Management*, 27(6), 681-697.
- Lee, E.-M., Lee, H. J., Pae, J.-H., & Park, S.-Y. (2016). The important role of corporate social responsibility capabilities in improving sustainable competitive advantage. *Social Responsibility Journal*, 12(4), 642-653.
- Lee, P.-Y., Li, C.-S. J., & Wu, M.-L. (2018). The roles of cross-cultural adjustment and social capital formation in the dynamic capabilities development of multiunit organizations. *Asia Pacific Management Review*, 23(1), 20-29.
- Mahdi, O. R. a., & Almsafir, M. K. (2012). Diagnosing of sustainable competitive advantage using Six Sigma methodology. *International Journal of Business and Management*, 7(7), 94.
- Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How information management capability influences firm performance. *MIS quarterly*, 237-256.
- Morris, S. S., Snell, S. A., & Wright, P. M. (2006). A resource-based view of international human resources: Toward a framework of integrative and creative capabilities. *Handbook of research in international human resource management*, 433-448.
- Mulyani, S., & Arum, E. D. P. (2016). The influence of manager competency and internal control effectiveness toward accounting information quality. *International Journal of Applied Business and Economic Research*, 14(1), 181-190.
- Özbağ, G. K., Esen, M., & Esen, D. (2013). The impact of HRM capabilities on innovation mediated by knowledge management capability. *Procedia-Social and Behavioral Sciences*, 99, 784-793.
- Palmatier, R. W., Scheer, L. K., & Steenkamp, J.-B. E. (2007). Customer loyalty to whom? Managing the benefits and risks of salesperson-owned loyalty. *Journal of marketing research*, 44(2), 185-199.
- Porter, M. E., & Kramer, M. R. (1985). Advantage. *Creating and Sustaining Superior Performance*, Simons, 56-68.
- Pratono, A. H., Darmasetiawan, N. K., Yudianto, A., & Jeong, B. G. (2019). Achieving sustainable competitive advantage through green entrepreneurial orientation and market orientation: The role of inter-organizational learning. *The Bottom Line*.
- Rodriguez, M., Peterson, R. M., & Ajjan, H. (2015). *CRM/social media technology: impact on customer orientation process and organizational sales performance*. Paper presented at the Ideas in Marketing: Finding the New and Polishing the Old: Proceedings of the 2013 Academy of Marketing Science (AMS) Annual Conference.
- Setia, M. S. (2016). Methodology series module 5: Sampling strategies. *Indian journal of dermatology*, 61(5), 505.
- Sutherland, M., Naidu, G., Seabela, S., Crosson, S., & Nyembe, E. (2015). The components of career capital and how they are acquired by knowledge workers across different industries. *South African Journal of Business Management*, 46(4), 1-10.
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California management review*, 58(4), 13-35.
- Uwizeyemungu, S., Raymond, L., Poba-Nzaou, P., & St-Pierre, J. (2018). The complementarity of IT and HRM capabilities for competitive performance: a configurational analysis of manufacturing and industrial service SMEs. *Enterprise Information Systems*, 12(10), 1336-1358.
- Ziggers, G. W., & Henseler, J. (2016). The reinforcing effect of a firm's customer orientation and supply-base orientation on performance. *Industrial marketing management*, 52, 18-26.
- Zikic, J. (2015). Skilled migrants' career capital as a source of competitive advantage: Implications for strategic HRM. *The International Journal of Human Resource Management*, 26(10), 1360-1381.

