



## Human Resource Management and Corporate Entrepreneurship: The Moderator Effect of Organizational Culture

<sup>1\*</sup> Jalal Rezk Saleh Nagi, <sup>2</sup> Fakhrul Anwar Zainol

<sup>1</sup> Faculty of Business & Management, University Sultan Zainal Abidin, Malaysia

<sup>2</sup> Faculty of Business & Management, University Sultan Zainal Abidin, Malaysia

\*Corresponding Author-Email [jalal\\_th7@yahoo.com](mailto:jalal_th7@yahoo.com)

Received: 23<sup>rd</sup> January 2023

Accepted: 5<sup>th</sup> May 2023

Published: 30<sup>th</sup> June 2023

### ABSTRACT

The purpose of this study is to determine the relationship between ability, motivation, and opportunity as expressed in human resource management (HRM) practices and corporate entrepreneurship (CE) in Yemeni public universities. It also uses organizational culture (OC) as a moderator variable to find out more about the indirect relationship between HRM practices and CE. HRM practices that organize human and social capital are critical for enhancing and facilitating CE. Nevertheless, there are variations in the published results about the impact of OC (as a moderator) on the relationship between ability, motivation, and opportunity with CE. The validity of HRM practices and the CE model will be tested empirically using data obtained from academic staff at Yemeni universities, with a sample size of 203 academic staff. SmartPLS 3.0 software was used, and the framework is made up of ability, motivation, opportunity, OC, and CE. The findings from the direct relationships demonstrate the significance of ability, motivation, and opportunity elements in fostering CE, particularly in Yemeni public universities. Furthermore, the moderate impact of organizational culture on the proposed relationship was investigated. Therefore, organizational culture (OC) moderates the association between ability and CE in a positive manner. In contrast, OC does not influence the relationship between motivation and CE. Additionally, OC has no moderating impact on the relationship between opportunity and CE. Moreover, the findings of study will help university leaders, scholars, policymakers, and people in charge of making decisions in the higher education sector make policies to improve HRM practices and CE. In general, HRM practices offer a new perspective on CE by utilizing an ability–motivation–opportunity (AMO). Thus, these HRM factors can be used as a guide to show how the best use of corporate resources can be made at different stages of the CE process.

**Keywords:** Ability; Motivation; Opportunity; Corporate Entrepreneurship; HRM practices

### 1. INTRODUCTION

To succeed in the global economy, organizations must deal with fierce competition. Moreover, HRM is often the cornerstone of sustainable competitiveness in a world and organization landscape that is constantly evolving (Korauš, Kaščáková, & Felcan, 2020). Additionally, in the last decade, the role of corporate entrepreneurship (CE) as a main element in the economic progress and growth of countries has developed significantly (Abbey, 2002; Kuratko, Hornsby & Hayton, 2015; Kuratko & Morris, 2018). Human resources are important because they can either motivate or delay CE (Montoro-Sanchez and Ribeiro Soriano, 2011). Within this context, companies must advance their flexibility and increase their competitive advantages by developing CE through their processes. HRM practices often impact workers' ability and motivation and give them the opportunity to perform predicted actions (Locke & Latham, 1990). Because the HRM role is critical for the growth of any enterprise (Welbourne, 2006), the emphasis of HRM practices should be on arranging work-related compatibility and complementing the personalities of human workers with the various job conditions (Larsen, 2001). Both HRM and CE have practical and educational implications (Dabic, Criado, & Martinez, 2011). The entrepreneur should have important characteristics in HRM practices such as

teamwork, risk-taking, team development, and competitive and managerial skills to begin the process of CE effectively (Narula & Chaudhary, 2018).

Many researchers emphasize the importance of studies about the relationship between HRM practices and CE. HRM practices and CE are well-known concepts in themselves. Nevertheless, the integration of them needs to be done in the current situation (Katz, Aldrich, Welbourne & Williams, 2000; Narula & Chaudhary, 2018). HRM is considered to be a significant managerial function of all operations that could impact the result of the CE (Morris, Davis & Allen, 1994). HRM practices will have an important influence on supporting CE (Soleimani & Shahnazari, 2013). Nevertheless, only a few scholars have judged the influence of HRM practices on general CE and explained how HRM practices specifically impact CE (Ahmed, Khattak & Siddiqui, 2016; Zhang & Edgar, 2022). In addition, HRM practices is one of the most important areas of administrative decisions that influence CE (Kuratko, Hornsby & Bishop, 2005; Schuler, 1986). HRM practices that organize human and social capital are critical for enhancing and facilitating CE (Ozdimirci & Behram, 2014). HRM practices therefore help to foster CE. Thus, according to Fong, Ng, Tan & Seow, (2013), HRM practices play a critical role in

making a company proactive, innovative, and able to take risks. HRM practices including recruitment, selection, improving abilities, and motivation, are intended to ensure that workers have the required features for achieving real growth in CE (Morris, Morel & Kenyon, 2006).

Indeed, HRM practices would appear to be one of the more vital administrative areas influencing CE (Kuratko et al., 2005). However, both CEs and HRMs have difficulty determining their study areas. This is especially true about CE because the meaning and dimensions of CE are very unclear (Dabic, et al., 2011). Several researches have shown that efforts to invest in workers have been made (Bapna, Langer, Mehra, Gopal, & Gupta, 2013; Elnaga & Imran, 2013; Khan, Abbasi, Waseem, Ayaz, & Ijaz, 2018) to develop workers' tasks and achieve competitive advantage and adaption to new environmental changes that happened after the COVID-19 pandemic (Carneval & Hatak, 2020). Because of this, companies spend a lot of money on improving and motivating their employees to make them more productive, improve their OC and make them more competitive (Owusu, 2012). Research is needed to learn more about the "black box" in HRM research, which is the link between models of HRM practices and performance outcomes, such as CE (Becker & Huselid, 2006).

## 2. LITERATURE REVIEW

### **Background of Population**

Yemen's economy has been in the worst shape in its history since March 2015. The economy of Yemen faces administrative and practical challenges in all industries (The World Bank, 2015). Many people lost their employment as a result of the war and its severe conditions, and the majority of teachers and government officials stopped paying their salaries. Moreover, universities in Yemen strive to achieve high-quality education and introduce high human capital (Annual Report of the Higher Education Ministry, 2018). For achieving these high levels of quality and human capital, the universities in Yemen have to determine the motivational needs, opportunities, and required abilities of academic staff for achieving entrepreneurial levels. Thus, the HRM practices and the CE model were put to the test by using data from academic staff at Yemeni universities.

### **Corporate Entrepreneurship (CE):**

According to Banumathi and Kumar (2015), CE is the process of acquiring multiple resources in order to successfully overwork and seek new opportunities. Thus, CE is allocating various resources to be used to discover and explore new markets and achieve corporate enhancement as well as value for the company. The activities of CE, such as strategic renewal and new company ventures, are becoming more important in light of the heightened market dynamics (Arz, 2017). Companies with a higher level of CE perform better, according to empirical studies (Rauch, Wiklund, Lumpkin & Frese, 2009). Moreover, CE also involves the renewal of important ideas that companies are built on. According to Covin and Slevin (1991), corporate entrepreneurship, as an organizational activity, "can be considered in three dimensions, namely innovation, risk-taking, and proactiveness." Specifically, innovation is the searching for

novel and inventive ideas, or the creation of new goods, technologies, and services with new innovations for the common good of the organization as a whole (Davis, Morris & Allen, 1991). Risk-taking depends on a company's ability to exploit existing capital in the context of an opportunity for costly failure. Proactiveness includes a behavior and ability that helps new technologies, services, or procedures be implemented and regulated in advance of competitors in the industry (Morris & Paul, 1987).

### **Human Resource Management Practices (HRM Practices)**

Human resources were recognized as one of the beneficial assets required to achieve the intended competitive advantage. In comparison to intangible assets, the imitability of tangible assets is on a larger scale, especially HR (Becker & Huselid, 2006). Furthermore, due to the complexity and ambiguity of the causal relationships, human attitudes and behaviors create barriers for other organizations to imitate. Consequently, researchers and practitioners have devoted a great deal of time and effort to studying all the possible means through which they can get the most benefit from their human resources (Almutawa, Muenjohn & Zhang, 2016). In this study, HRM practices refer to ability, motivation, and opportunity.

### **AMO Theory**

The AMO theory has been extensively accepted in the literature of human resources for explaining the linkage between HRM practices and organizational performance. Although the theory of AMO has been investigated in some studies, it is unclear whether this theory has been fully demonstrated (Marin-Garcia & Tomas, 2016). The theory of ability, motivation, and opportunity (AMO) was widely accepted after its introduction in 2000 to describe the relationship between HRM practices and performance (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Boxall, 2003). In fact, this theoretical framework is used directly or indirectly in a number of studies from 2000 that look at the relationship between HRM and performance (Boselie, 2010; Ehrnrooth & Bjorkman, 2012; Hutchinson, 2013; Paauwe, 2009).

### **Ability and CE**

Based on the AMO theory, the first factor in HRM practices is ability. Ability can be described by a variety of functional terms (training and development, recruitment and selection, and performance evaluation) (Almottahar & Pangil, 2021). It is also directly related to human qualities (skills, experience, attitudes, and related knowledge). According to the AMO theory, ability is "the acquired and innate capacity that enables a person to successfully complete a specific task" (Kim, Pathak & Werner, 2015). In the present study, the ability concept represents the first factor in HRM practices. According to Wakkee, Elfring, and Monaghan (2010), workers with good ability and self-efficacy will participate in getting CE and entrepreneurial workers. Additionally, based on the results of previous studies such as Turner & Pennington (2015); Salamzadeh & Hosseini (2019), they confirmed that there is a significant relationship between ability and CE. Ability (self-efficacy) is a human's cognitive evaluator of his own (Wood & Bandura, 1989). More emphasis has been placed on the role of ability in CE research (Chen, Zhu, & Anquan, 2005). The hypothesis (H1) concerning the ability is formulated as follows:

**H1: There is a significant relationship between ability and corporate entrepreneurship.**

**Motivation and CE**

The second construct of HRM practices based on AMO theory is motivation, which can be described by extrinsic motivational factors and intrinsic motivational factors. According to AMO theory, the motivation factor is explained as "the extent to which a human wants to choose to be involved in positive, definite behavior" (Kim et al., 2015). According to Urban and Wood (2015), the previous findings of some empirical studies specify that workers consider themselves as possessing high levels of motivational factors and chance recognition performances that are positively linked with readiness to participate in corporate entrepreneurial initiatives. Additionally, motivation has a significant association with CE. According to Chen et al. (2005), in their study, they identified that motivation plays an imperative role in encouraging CE. Likewise, people with a strong need to accomplish things often find their path to corporate entrepreneurship and succeed better than others (Carsrud and Johnson, 1989; McClelland, 1965). The hypothesis (H2) will be as follows:

*H2: There is a significant relationship between motivation and corporate entrepreneurship.*

**Opportunity to Perform and CE**

Opportunity to perform is the third fundamental element within the AMO theory, which is clarified by a few measurements of worker inclusion (self-directed work groups, issue solving and association within the decision-making handle, sharing and communication, etc.). Previous research has shown that one of the HRM practices, opportunity, is essential to the creation and cultivation of CE (Ahmed et al., 2016). Furthermore, providing opportunities for subordinates to perform will be regarded as one of the critical variables and foundations of sustainable corporate entrepreneurship (Cohen & Winn 2007). Similarly, Salamzadeh and Hosseini's (2019) research shows that the way HRM practices deal with opportunity has a big effect on corporate entrepreneurship. According to previous empirical results, workers who have high levels of opportunity are positively linked to their readiness to get involved in CE (Urban & Wood, 2015). Moreover, the process of innovation with attitudinal and behavioral elements is generally accepted (Roupas 2008; Urban & Wood 2017), and providing a suitable opportunity to perform for workers can be considered one of the central conceptual factors influencing CE (Urban & Wood, 2015). Thus, the hypothesis (H3) will be as follows:

*H3: There is a significant relationship between opportunity and corporate entrepreneurship.*

**Organizational Culture and Moderating Effects**

Organizational culture (OC) is a crucial element for organizations (Gulua, 2018). OC can be considered one of the most important factors influencing the behavior of humans in diverse companies, and corporate culture as a term has a slightly modern beginning (Zeyada, 2018). In this study, Sashkin and Rosenbach's (2013) Organizational Culture Assessment Questionnaire (OCAQ) was used to measure the

culture of the organization. According to Hayton (2005), most research applied to the relationship between OC and CE does not clearly address HRM practices in the model of this relationship. According to recent research, one of the critical factors for CE is OC (Yildiz, 2014). Moreover, OC is a significant foundation of continuous competitive advantage when it has the strategic features of an asset, such as scarcity, value generation, and willingness to exchange (Barney, 1986; Hayton, 2005). In a comparison of the modern business advancement practices of successful and unsuccessful organizations, MacMillan (1987) stated that successful organizations had, in general, the capacity to generate a venturesome culture by inspiring inescapable commitment throughout the organization, avoiding external motivations, and advancing internal compensation.

In an investigation of a single measurement of culture, Morris et al. (1994) suggests that the level of individualism inside a company will have a significant impact on CE. Lastly, Chandler, Keller and Lyon (2000) confirmed that HRM practices can affect innovation and proactiveness by creating a helpful culture. In addition, the previous literature about the culture and HRM fields suggests that HRMPs can have an imperative indirect impact on CE inside companies, by creating a supportive context. Using the required workers and cultural characteristics, it will be possible to characterize the HRM policy motivations, and giving opportunities will be most helpful to promote CE. Based on what was mentioned above, the following hypotheses are proposed:

*H4: Organizational culture moderates the relationship between ability and CE.*

*H5: Organizational culture moderates the relationship between motivation and CE.*

*H6: Organizational culture moderates the relationship between opportunity and CE.*

**3. METHODOLOGY**

Because of the nature of the study and the primary study objectives, which were to assess the relationship between ability, motivation, and opportunity factors with CE based on academic staff opinions, the quantitative approach will be deemed most appropriate. This study also used a descriptive and correlational research design to try to find out how the identified variables (AMO factors and CE) are related statistically.

**Population and Sampling**

The target population of this study was the academic staff of Yemeni public universities in the faculties of administrative sciences and economics. As mentioned before, the population of this study was the academic staff in the four oldest governmental universities in Yemen (Sana'a, Aden, Taiz, and Hadramout). Additionally, Sana'a and Taiz universities can be considered the oldest and largest universities in the northern part of Yemen. Aden and Hadramout universities are the oldest and largest universities in the southern part of Yemen. According to the gathered data from the target faculties and the educational indicators of the Republic of Yemen, 430 academic staff members can be considered the target

population of this study. According to Uma Sekaran (2003), the sample sizes could be 30 to 500 units, depending on the length of the researcher's population. Krejcie and Morgan (1970) say in their reliable table that only 203 of the 430 academic staff will be chosen as respondents for this study. These people will be chosen at random from the number of people in the population. Calculating the sample size n

Krejcie and Morgan Formula  $n = \frac{\chi^2 NP(1-P)}{e^2(N-1) + \chi^2 P(1-P)}$

N = population size = 430  
 $\chi^2 = Chi\ square = 3.841$ , confidence level is 95%  
 Degree of freedom  
 e = Margin of error = 0.05, confidence level is 95% Degree of freedom  
 P = 0.5

$$n = \frac{3.841 \times 430 \times 0.5 \times (1 - 0.5)}{0.05^2 \times (430 - 1) + 3.841 \times 0.5 \times (1 - 0.5)} = 203.1$$

**Study Instrument**

The current research used the questionnaire method, which can be considered a research instrument involving a set of questions and other motivators designed for gathering the data required from target respondents. The scale that will be used in this data collection method is the Likert scale: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

**Pilot Test**

A pilot test was conducted before using the data. The scale was created using earlier sources and modified to fit the respondents of the current study. This was done to assess the construct's validity and reliability. Because all of the Cronbach's alpha values in Table 1 below are greater than the 0.7 criterion, the findings of the pilot study showed satisfactory internal consistency reliability (Hair, Ringle & Sarstedt, 2011; Sarstedt, Ringle & Hair, 2017). and the final version of the questionnaire was released without any major changes to the measurement items.

**Table 1:** Results of the assessment of internal consistency and reliability in the pilot study

Variable	Number of items	Cronbach's Alpha
Ability	8	0.743
Motivation	15	0.894
Opportunity	14	0.944
Organizational culture	15	0.942
Corporate entrepreneurship	12	0.934

**Measurement**

This study consists of three independent variables (ability, motivation, and opportunity), one moderator (organizational culture), and one dependent variable (CE). To make sure the items were valid and reliable, a 64-item, 5-point Likert scale

was taken from previous studies and changed to answer the questions of the study. Moreover, the measurement of ability was adopted from Chen, Gully and Eden (2001). The measurements of motivation and opportunity were adopted from Nor & Abdullah (2020). Additionally, the measurement of organizational culture was adopted from Sashkin and Rosenbach (2013) by using the Organizational Culture Assessment Questionnaire (OCAQ). The measurement of corporate entrepreneurship was adopted from Özdemirci (2011).

**Data Analysis Methods**

After the data has been collected, the data is used to key in to the statistical program (SPSS) and then apply the PLS-SEM approach by using SmartPLS 3.0 software. To achieve objective number one, the researcher will figure out the level of AMO factors, OC, and CE by using the mean and standard deviation. This study used different statistical methods to make the analysis of the data better, such as partial least squares (PLS-SEM) with the SmartPLS 3.0 program. To perform data analysis and get the required results, this study will therefore use (PLS-SEM) with the SmartPLS 3.0 program. Based on the aims and questions of the current study, PLS-SEM with SmartPLS 3.0 was chosen as a good way to test the hypotheses. The purpose of the assessment of the reflective measurement model is to confirm construct measures' reliability and validity and, therefore, offer support for the appropriateness of construct measures' involvement in the path model. The main requirements of the reflective measurement model are convergent validity, indicator reliability, discriminant validity, and composite reliability. If all of these conditions are met, reflective constructs are suitable for using PLS-SEM analyses (Hair, Sarstedt, Ringle & Gudergan, 2017). Moreover, the assessments of the structural model are: coefficient of determination (R2), path coefficients, and effect size (f2). Thus, the two steps for modelling by PLS-SEM can be explained in Table 3 below, which will also show the indicators and recommended thresholds for the tests of measurement and structure modelling.

**Table 2:** Summary of Procedures for Measurement and Structural Model Testing

Type of Model	Measurement Model Test	Structural Model Tests
Criterion	Indicator reliability Loading > 0.70 (Hair et al., 2011; Sarstedt et al., 2017).	Explanation endogenous R2 rang from 0-1. (Wong, 2013; Hair et al., 2011)
	Internal consistency reliability 0.60 to 0.70(Hair et al., 2011; Sarstedt et al., 2017).	Path coefficients (Bootstrapping values) t-values (Henseler et al., 2015; Sarstedt et al., 2017).
	Convergent validity AVE > 0.50 (Hair et al., 2017; Sarstedt et al., 2017)	Effect Size $f^2$ it will be small when the value = 0.02, medium when the value = 0.15, and large when = 0.35 (Cohen 1988).
	Discriminant validity AVE. Fornell-Larcker criterion (Sarstedt et al., 2021; Sarstedt et al., 2017)	

#### 4. RESULTS

##### MEASUREMENT MODEL

##### Convergent Validity

According to Table 3 below, there is no loading less than 0.62, the CR values of each construct are more than 0.70, and the AVE is more than 0.50. The items achieved the requirements without any removal from the scale. Furthermore, to determine the internal consistency, Cronbach's alpha was examined in this study. According to the detailed results of AVE, Cronbach's alpha, and CR in Table 3 below, the findings of all items and constructs are within an acceptable level.

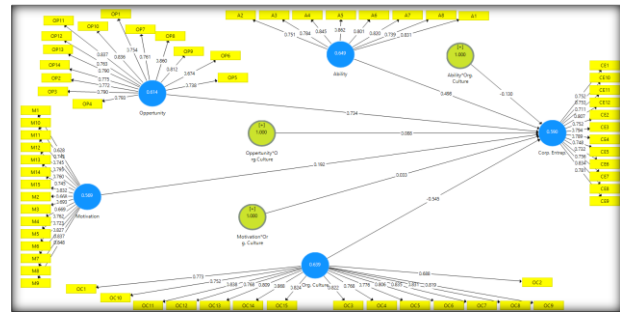
**Table 3:** Measurement Model Results (Convergent Validity)

Constructs	Items	Loadings	Alpha	CR	AVE
Ability	A1	0.831	0.922	0.936	0.649
	A2	0.751			
	A3	0.784			
	A4	0.845			
	A5	0.862			
	A6	0.801			
	A7	0.820			
	A8	0.739			
Motivation	MT1	0.628	0.945	0.952	0.569
	MT2	0.668			
	MT3	0.693			
	MT4	0.669			
	MT5	0.762			
	MT6	0.723			
	MT7	0.827			
	MT8	0.837			
	MT9	0.848			
	MT10	0.743			
	MT11	0.745			
	MT12	0.795			
	MT13	0.760			
	MT14	0.745			
	MT15	0.832			
Opportunity	OT1	0.754	0.951	0.954	0.614
	OT2	0.772			
	OT3	0.790			
	OT4	0.793			
	OT5	0.738			
	OT6	0.674			
	OT7	0.761			
	OT8	0.860			
	OT9	0.812			
	OT10	0.836			
	OT11	0.837			
	OT12	0.763			
	OT13	0.790			
	OT14	0.775			
Organizational Culture	OC1	0.773	0.960	0.954	0.639
	OC2	0.688			
	OC3	0.822			
	OC4	0.768			
	OC5	0.776			
	OC6	0.806			
	OC7	0.835			
	OC8	0.831			
	OC9	0.814			
	OC10	0.752			
	OC11	0.838			
	OC12	0.768			
	OC13	0.809			
	OC14	0.868			
	OC15	0.824			
Corporate Entrepreneurship	CE1	0.752	0.937	0.945	0.590
	CE2	0.752			
	CE3	0.794			

CE4	0.789
CE5	0.748
CE6	0.732
CE7	0.756
CE8	0.834
CE9	0.781
CE10	0.753
CE11	0.711
CE12	0.807

Note: Composite reliability > 0.70 and AVE > 0.50

Figure 1 below shows the measurement model of the current study.



**Figure 1:** Measurement Assessment Model

##### Discriminant Validity

Based on the Fornell and Larcker (1981) standard, the discriminant validity of the model measurements is shown in Table 4 below. As presented in Table 4, the correlations between the five main constructs, ranging from 0.407 to 0.739, are smaller than the square root of the AVE estimates, which are in the range of 0.755 to 0.805, thus confirming the good discriminant validity of the current model (Hair, Hult, Ringle, & Sarstedt, 2013).

**Table 4:** Findings of Discriminant Validity Matrix using Fornell and Lacker Criterion (Validity and correlations among construct)

Construct	A	CE	MT	OT	OC
<b>A</b>	0.805				
<b>CE</b>	0.739	0.768			
<b>MT</b>	0.407	0.476	0.755		
<b>OT</b>	0.473	0.548	0.461	0.784	
<b>OC</b>	0.469	0.435	0.470	0.518	0.800

##### STRUCTURAL MODEL

According to the hypotheses of the current study, the evaluation of structural models was conducted twice in the current analysis: once with the direct relationship model and again with the effect of moderation analysis.

##### Assessment of Significant of the Structural Model (Direct Relationships)

Table 5 below shows that there is a significant positive relationship between ability and CE with P-value 0.05, T = 7.638, and = 0.498. There is also a significant positive relationship between motivation and corporate

entrepreneurship, with P-value = 0.005, T = 2.854, and = 0.192. Furthermore, there is a significant positive relationship between opportunity and corporate entrepreneurship, with P-values of 0.05 and = 0.734, respectively. Consequently, the three direct hypotheses (H1, H2, and H3) are supported.

**Table 5: Findings of hypotheses testing (Direct relationship)**

Hypotheses	Relationships	Beta	T-value	P-values	L.L	U.L	Decision
H1	Ability -> CE	0.498	7.638	0.000	0.365	0.631	Supported
H2	Motivation -> CE	0.192	2.854	0.005	0.049	0.335	Supported
H3	Opportunity -> CE	0.734	4.012	0.000	0.406	1.062	Supported



**Figure 2: Assessment of structural Model**

According to Figure 2 above, the output findings generated by using SmartPLS 3.0 software are presented, and they obviously demonstrate the t-values in the path coefficient of the main latent constructs.

**Assessment of R-square (direct effect)**

The current study has one endogenous latent variable, which is CE. Table 6 below shows the adjusted R-square value, which indicates that all the variables together explain approximately 68% of the changes in the independent variable. That means ability, motivation, and opportunity explain around 68% of the changes in CE.

**Table 6: Results of R-square (direct effects)**

	R-Square	R-Square Adjusted
CE	0.692	0.679

**Assessment of Effect Size of Path (f<sup>2</sup>)**

The size of the effect of the path was measured by the value of (f<sup>2</sup>). Values of 0.02, 0.15, and 0.35 are weak, medium, and large effects, respectively (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014; Sarstedt et al., 2017). Table 7 below shows the values of (f<sup>2</sup>).

**Table 7: f<sup>2</sup> Index for Structural Model Analysis using PLS-SEM**

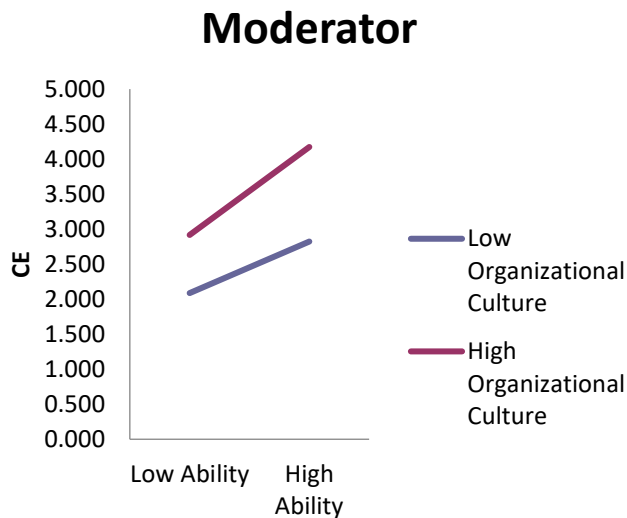
	f <sup>2</sup>	Effect Size
Ability	0.422	Large
Motivation	0.082	Small
Opportunity	0.269	Medium

**Assessment Moderation Analysis (Significance of Indirect Relationships)**

In the structural model of the current analysis, the H4, H5, and H6 hypotheses were put forward in this study's structural model to show how organizational culture (OC) affects the relationships between HRM practices (ability, motivation, and opportunity) and CE. The moderation analysis was assessed based on the standards of P-values, t-values, and path coefficients. According to table 8 below, the P-value of the H4 was less than 0.05. That means the fourth hypothesis is statistically significant. Out of the three hypotheses tested, two were found to have statistically insignificant results. The significant moderating hypothesis (H4) is that "organizational culture moderates the positive relationship between ability and CE" (ability -> CE). This association was statistically significant where p = 0.012, which is less than the standardized value of 0.05, and the t-value = 2.534, which is larger than the standardized value of 1.96, and the path coefficient β= 0.130. The next moderating hypothesis (H5) is not supported where p = 0.732 is larger than 0.05, t-value = 0.343 is less than 1.96, and β= 0.033. Furthermore, hypothesis (H6) was not significant with p = 0.302 greater than 0.05, a t-value of 1.03 less than 1.96 (acceptable standard), and = -0.088. Thus, only H4 was supported, while H5 and H6 were not.

**Table 8: Moderating Effect (Path Coefficient Results)**

Hypotheses	Relationships	Beta	T-value	P-value	L.L	U.L	Decision
H4	Ability*OC -> CE	0.130	2.534	0.012	0.218	0.020	Supported
H5	MT*OC -> CE	0.033	0.343	0.732	0.121	0.242	Not Supported
H6	OT*OC -> CE	0.088	1.030	0.302	0.089	0.244	Not Supported



**Figure 3:** The Moderating Effects of Organizational Culture on the Relationship Between Ability and CE.

Based on figure 3 above, the graphical effect of OC was addressed, and it strengthens the positive relationship between ability and CE. Figure 3 also shows that when organizational culture is high, the link between ability and CE is stronger.

## 5. DISCUSSION

The main objective of this study is to identify the relationship between HRM practices, namely ability, motivation, and opportunity, and CE at Yemeni public universities. Moreover, this study was conducted to determine whether OC moderated the correlation between (ability, motivation – opportunity) and CE. In general, the findings of the direct relationship revealed that ability, motivation, and opportunity have a significant relationship with CE in the Yemeni public universities. Moreover, the relationship between opportunity and CE was the strongest. While the relationship between motivation and CE was the weakest, all other direct relationships were supported. The results demonstrated a significant relationship between ability and CE. Consequently, the first hypothesis (H1) was supported. In accordance with the result of this study, previous studies have demonstrated that ability positively correlates with CE, such as: Chen et al., 2005; Chen et al., 1998; Littunen, 2000; McMullen & Shepherd, 2006; Salamzadeh & Hosseini, 2019; Turner & Pennington, 2015; Wood & Bandura, 1989. In addition, the second hypothesis (H2) shows that there is a significant direct relationship between motivation and CE in Yemeni public universities. Accordingly, H2 was supported. The result of the current hypothesis is consistent with previous studies' findings, such as: Balkin & Logan, 1988; Ben Arfi and Hikkerova, 2021; Chen et al., 2005; Cornwall & Perlman, 1990; Hornsby, Kuratko & Zahra, 2002; Ireland, Covin & Kuratko, 2009; Maidique, 1980; Turner and Pennington, 2015; Salamzadeh and Hosseini, 2019. Moreover, the third hypothesis, that there is a direct relationship between opportunity and CE in Yemeni public universities, was supported. This result of the opportunity-CE relationship is confirmed and consistent with the findings of

previous studies such as Ahmed et al. (2016); Ben Arif & Hikkerova, 2021; Cohen & Winn, 2007; Salamzadeh & Hosseini, 2019; Urban & Wood (2017).

The result of the second objective is to determine whether OC moderates the correlation between (ability – motivation – opportunity) and CE. The H4 results for the first indirect relationship of the moderator OC revealed that the ability showed a strong prediction with CE with the influence of OC as an intervening variable. There are literatures that discuss the importance of organizational culture (OC) in assisting and promoting organizational effectiveness without reaching a conclusive conclusion, according to Umrani, Kura, and Ahmed (2018). Notable leaders who can outline corporate culture should be present in order for an organization to gain a competitive advantage (Kuratko & Welsch, 2004). Moreover, it is widely accepted that organizational culture is an important element that has a vital impact on humans' behavior in diverse corporations (Zeyada, 2018). Based on what Morris et al. (1994) found in their study, they think that HRM practices can affect CE by creating an entrepreneurial culture. On the other hand, H5 and H6 are not supported. Consequently, in Yemeni public universities, the role of the OC as a moderator in the link between motivation and opportunity with CE is not important. In general, the war, which began in 2015, harmed the majority of Yemeni public sectors, especially education, universities, and schools. It is difficult to forget this reason in an insignificant role like OC. One of the main reasons why OC doesn't have much of an effect on these relationships is that it isn't encouraged in Yemen's public sectors, and there is not a regular system for evaluating staff's performance that gives them the right kind of feedback (AL-Mottahar & Pangil, 2021).

Likewise, CE doesn't exist or is weak in most of the Yemeni public sector because motivational factors aren't linked to OC and a systematic performance evaluation. Moreover, there are no detailed identifications of OC's directions that can enhance the level of CE. Thus, OC will have less of an effect on improving CE if we can't find the right patterns and trends (Arz, 2017).

### Implication of Study

This study develops previously gathered knowledge in the HRM and CE fields. Organizations, practitioners, universities, and academics have paid more attention to HRM practices and other factors that could improve CE in current organizations. Based on what this study found, there are many things that can be done to advance CE in developing countries, particularly in the Yemeni public universities. This study can also be used as a basis for future studies in the fields of HRM and CE that are becoming more essential by using AMO theory. By putting together a lot of different factors, this study has made a clear contribution to the literature. Though earlier studies have validated HRM and OC as important factors for CE (AL-Mottahar & Pangil, 2021; Chandler et al., 2000; Chen et al., 2005; Hayton, 2005; Kuratko & Morris, 2018), this study is a new attempt to demonstrate that HRM practice is associated with the CE process in the educational industry in Yemen. Therefore, the current study provides a contemporary viewpoint on CE research that supports academics and practitioners in addressing the issues of making CE an ongoing and efficient process.

## 6. CONCLUSION

This empirical investigation strengthened several major variables' correlations. After the questionnaires were checked and found to be reliable, 166 academic staff members from Yemeni public universities provided the information that was needed. The SmartPLS 3.0 program analyzed the data after collection. This procedure verified measurement and structural model implementation. The statistical results of the study and the historical majority outcomes made sense in light of previous studies. The first main goal of this study is to test the relationship between HRM practices (ability, motivation, and opportunity) and CE, which hasn't been done before using AMO theory. The second goal is to look at how OC affects the indirect link between HRM practices (ability, motivation, and opportunity) and CE in Yemeni public universities. Moreover, based on the findings of the study, future research suggestions were highlighted. Further study is recommended using a larger sample size and population. In addition, to get a full picture of how HRM practices affect CE at universities, more and more HRM practices and functional factors that could have had an effect on CE need to be added. Providing more details through multidimensional modelling when exploring the connection between AMO elements and CE would be useful for future studies. A future study that employs the same combination of quantitative and qualitative methods to investigate CE and HRM in a different context would be extremely beneficial. Furthermore, in future research, a multi-stage study should be done to figure out the levels of variables. The study should then be used by diverse types of universities or organizations. In general, HRM focuses on the role that employees play in corporate productivity and efficiency (Manzoor, Wei, Bányai, Nurunnabi & Subhan, 2019). In addition, HRM practices offer a new perspective on CE by utilizing an ability–motivation–opportunity (AMO). Therefore, these HRM factors can be used as a guide to show how corporate resources can be most effectively used at different stages of the CE process instead of being completely generic and the same in all situations (Turner & Pennington, 2015). The current study also made contributions to theory and practice in terms of how these AMO factors affect CE in Yemeni public universities. In conclusion, academic policymakers and educators must keep abreast of changes in the education sector by studying, supervising, and developing programs all the time. This is important for the success of both individuals and organizations.

## 7. ACKNOWLEDGEMENT

After thanking ALLAH for everything, I would like to express my appreciation and gratitude to my dear supervisor, Assoc. Prof. Fakhru Anwar Zainol, for all the support, guidance, and motivation that were provided during the PhD journey and the completion of this paper. Moreover, I would love to extend my thanks to my financial sponsor, Taiz University, Yemen, for its financial and academic support.

## Authors Information:

**First author:** Jalal Rezk Saleh Nagi, 2Fakhru Anwar Zainol  
1Faculty of Business & Management, University Sultan Zainal  
Abidin, Malaysia, South City (Perdana Selatan) Block C,  
Serdang Perdana, Taman Serdang Perdana, 43300 Seri  
Kembangan, Selangor [Tel:+60389574271](tel:+60389574271)  
H/P:+601162234474.

**Second Author:** Faculty of Business & Management,  
University Sultan Zainal Abidin, Gong Badak Camus, 21300  
Kuala Terengganu Darul Iman, Malaysia, [Tel:+6096688287](tel:+6096688287)  
H/P: +60129858045 Email: fakhruanwar@unisza.edu.my

## 8. REFERENCES

- Abbey, A. (2002). Cross-Cultural Comparison of The Motivation for Entrepreneurship. *Journal of Business and Entrepreneurship*, Vol. 14, 69-78.
- Ahmad, S., Khattak, M. A. R., & Siddiqui, A. A. (2016). Impact of Human Resource Management Antecedents on Corporate Entrepreneurship. *University of Haripur Journal of Management (UOHJM)*, 1(1), 48-61.
- AL-Mottahar, T., & Pangil, F. (2021). The Moderator Effect Of Transfer Climate on Enhancing Transfer of Training: The Application of AMO Theory. *Journal of Management Information and Decision Sciences*.
- Almutawa, Z., Muenjohn, N., & Zhang, J. (2016). The effect of human resource management system on employees' commitment: The mediating role of the AMO model. *The Journal of Developing Areas*, 50(6), 17-29.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A.L. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. London: Economic Policy Institute: Cornell University Press, Ithaca, NY.
- Arz, C. (2017). Mechanisms of organizational culture for fostering corporate entrepreneurship: a systematic review and research agenda. *Journal of enterprising culture*, 25(04), 361-409.
- Balkin, D. B., & Logan, J. W. (1988). Reward policies that support entrepreneurship. *Compensation & Benefits Review*, 20(1), 18-25.
- Banumathi, M., & Samudhara raja kumar, C. (2015). Influence of high performance work system, emotional intelligence and entrepreneurial orientation on corporate entrepreneurship. *International Journal of Recent Scientific Research*. Vol. 6(9), pp.6105-6110.
- Bapna, R., Langer, N., Mehra, A., Gopal, R., & Gupta, A. (2013). Human capital investments and employee performance: an analysis of IT services industry. *Management Science*, 59(3), 641-658.
- Barney, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage?. *Academy of Management Review*, 11(3), 656-665.
- Becker, B.E. and Huselid, M.A. (2006) Strategic human resources management: where do we go from here?. *Journal of Management*, 32, 898-925.
- Ben Arfi, W., & Hikkerova, L. (2021). Corporate entrepreneurship, product innovation, and knowledge conversion: the role of digital platforms. *Small Business Economics*, 56(3), 1191-1204.
- Boselie, P. (2010). High performance work practices in the health care sector: a Dutch case study. *International Journal of Manpower*, 31(1), 42-58.
- Boxall, P. (2003). HR strategy and competitive advantage in the service sector. *Human Resource Management Journal*, 13(3), 5-20.
- Camevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183-185.
- Carsrud, A.L. & Johnson, R.W. (1989), "Entrepreneurship: a social psychological perspective", *Entrepreneurship and Regional Development*, Vol. 1 No. 1, pp. 21-31.
- Chandler, G. N., Keller, C., and Lyon, D. W. (2000). Unraveling the determinants and consequences of an innovation supportive culture. *Entrepreneurship Theory and Practice*, 25(1), 59-76.
- Chen, C.C., Greene, P.G. and Crick, A. (1998), "Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?", *Journal of Business Venturing*, Vol. 13, pp. 295-316.
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational research methods*, 4(1), 62-83.
- Chen, J., Zhu, Z., and Anquan, W. (2005). A System Model for Corporate Entrepreneurship. *International Journal of Manpower*, Vol. 26 No. 6.



- Cohen, B.; Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship, *Journal of Business Venturing* 22: 29–49.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Lawrence Erlbaum Associates. Hillsdale, NJ, 20-26.
- Cornwall, J. R., & Perlman, B. (1990). Organizational Entrepreneurship. Homewood, IL: Richard D. Irwin.
- Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, 7 –25.
- Dabic, M., Criado, D.-U. M., & Martinez, R. A. (2011). Human resource management in entrepreneurial firms: a literature review. *International Journal of Manpower*, 32(1), 14-33.
- Davis, D., Morris, M., & Allen, J. (1991). Perceived environmental turbulence and its effect on selected entrepreneurship, marketing, and organizational characteristics in industrial firms. *Journal of the Academy of Marketing Science*, 19(1), 43–51.
- Ehmrooth, M., & Björkman, I. (2012). An integrative HRM process theorization: Beyond signalling effects and mutual gains. *Journal of Management Studies*, 49(6), 1109-1135.
- Elnaga, A., & Imran, A. (2013). The effect of training on employee performance. *European Journal of Business and Management*, 5(4), 137-147.
- Fong, C. Y., Ng, Y. K., Tan, P. S. H., & Seow, A. N. (2013). Does leadership and HRM matter on corporate entrepreneurship. *Human Resource Management Research*, 3(1), 7-10.
- Gulua, E. (2018). Organizational culture management challenges. *European Journal of Interdisciplinary Studies*, 4(1), 67-79.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*.
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. Sage publications.
- Hayton, J.C. (2005). Promoting Corporate Entrepreneurship Through Human Resource Management Practices: A Review of Empirical Research. *Human Resource Management Review* 15, 21–41.
- Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of business Venturing*, 17(3), 253-273.
- Hutchinson, S. (2013). *Performance management: theory and practice*. Kogan Page Publishers.
- Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship theory and practice*, 33(1), 19-46.
- Katz, J.A., Aldrich, H.E., Welbourne, T.M. and Williams, P.M. (2000), "Guest editor's comments: special issue on human resource management and the SME: toward a new synthesis", *Entrepreneurship Theory and Practice*, Vol. 25 No. 1, pp. 7-10.
- Khan, A. A., Abbasi, S. O. B. H., Waseem, R. M., Ayaz, M., & Ijaz, M. (2016). Impact of Training and Development of Employees on Employee Performance through Job Satisfaction: A Study of Telecom Sector of Pakistan. *Business Management and Strategy*, 7(1), 29-46.
- Kim, K. Y., Pathak, S., & Werner, S. (2015). When do international human capital enhancing practices benefit the bottom line? An ability, motivation, and opportunity perspective. *Journal of International Business Studies*, 46(7), 784-805.
- Korauš, A., Kaščáková, Z., & Felcan, M. (2020). The impact of ability-enhancing HRM practices on perceived individual performance in IT industry in Slovakia. *Central European Journal of Labour Law and Personnel Management*, 3(1), 34-46.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Kuratko, D. F., and Morris, M. H. (2018). Corporate entrepreneurship: A critical challenge for educators and researchers. *Entrepreneurship Education and Pedagogy*, 1(1), 42-60.
- Kuratko, D. F., Hornsby, J. S., & Bishop, J. W. (2005). Managers' corporate entrepreneurial actions and job satisfaction. *The International Entrepreneurship and Management Journal*, 1(3), 275-291.
- Kuratko, D. F., Hornsby, J. S., & Hayton, J. (2015). Corporate entrepreneurship: the innovative challenge for a new global economic reality. *Small Business Economics*, 45(2), 245-253.
- Kuratko, D. F., & Welsch, H. P. (2004). Strategic Entrepreneurial Growth, edn. *United States of America: Thompson, South-Western*.
- Larsen, J. N. (2001). Knowledge, human resource and social practice: the knowledge-intensive business service firm as a distributed knowledge system. *Service Industries Journal*, 21 (1), 81-102.
- Littunen, H. (2000). Entrepreneurship and the characteristics of the entrepreneurial personality. *International journal of entrepreneurial behavior & research*.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.
- Maidique, M. A. (1980). Entrepreneurs, champions, and technological innovation. *Sloan management review*, 21(2), 59-76.
- Manzoor, F., Wei, L., Bányai, T., Nurunnabi, M., & Subhan, Q. A. (2019). An examination of sustainable HRM practices on job performance: An application of training as a moderator. *Sustainability*, 11(8), 2263.
- Marin-Garcia, J. A., Miralles, C., Garcia-Sabater, J. J., & Perello-Marin, M. R. (2011). Alternative tools to mass production and human performance indicators in sheltered work centers of Valencian community (Spain). *Journal of Industrial Engineering and Management*, 4(3), 467-480.
- McClelland, D.C. (1965), "Achievement and entrepreneurship: a longitudinal study", *Journal of personality and Social Psychology*, Vol. 4 No. 1, pp. 389-92.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management review*, 31(1), 132-152.
- Morris, H., & Paul, G. W. (1987). The relationship between entrepreneurship and marketing in established firms. *Journal of Business Venturing*, 2, 247– 259.
- Morris, M. H., Davis, D. L., & Allen, J. W. (1994). Fostering corporate entrepreneurship: Cross-cultural comparisons of the importance of individualism versus collectivism. *Journal of International Business Studies*, 25(1), 65–89.
- Morris S.T., Morel, P.C.H., & Kenyon P.R. (2006). The effect of individual liveweight and condition of beef cows on their reproductive performance and birth and weaning weights of calves. *New Zealand Veterinary Journal* 54: 96-100. doi 10.1080/00480169.2006.36619.
- Montoro-Sánchez, Á., & Ribeiro Soriano, D. (2011). Human resource management and corporate entrepreneurship. *International Journal of Manpower*, 32(1), 6-13.
- Narula, N., & Chaudhary, N. (2018). Human Resource Management as Entrepreneurial Tool: A Literature Review.
- Nor, N. M., & Abdullah, F. (2020). The relationships between ability, motivation and opportunity (AMO) model of high-performance work practices (HPWP) and organizational performance on millennials in MARA Headquarters, Kuala Lumpur: Mediated by job embeddedness. *International Journal of Academic Research in Business and Social Sciences*, 10(13), 62-72.
- Owusu, T. (2012). Effects of motivation on employee performance: A case study of Ghana commercial bank, Kumasi zone. *Unpublished MBA Thesis, Kwame Nkrumah University of Science, Kumasi, Ghana*.
- Özdemirci, A. (2011). Corporate entrepreneurship and strategy process: A performance based research on Istanbul market. *Procedia-Social and Behavioral Sciences*, 24, 611-626.
- Ozdimirci, A., & Behram, N. K., (2014). Linking Human Resources Practices to Corporate Entrepreneurship: The Mediating Role of Perceived Organizational Support. *Business Management and Strategy*. ISSN 2157-6068 2014, Vol. 5, No. 1. <http://dx.doi.org/10.5296/bms.v5i1.4976>.
- Pauwwe, J. (2009). 'HRM and performance: achievements, methodological issues and prospects'. *Journal of Management Studies*, 46, 129–42.
- Rauch, A., Wiklund, J., Lumpkin, G.T. and Frese, M. (2009) Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33, 761–787.
- Salamzadeh, A., Tajpour, M., & Hosseini, E. (2019). Corporate entrepreneurship in University of Tehran: does human resources management matter?. *International journal of knowledge-based development*, 10(3), 276-292.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of market research* (pp. 587-632). Cham: Springer International Publishing.
- Sashkin, M., & Rosenbach, W. E. (2013). *Organizational culture assessment questionnaire*. Marshall Sashkin.
- Schuler, R. S. (1986). Fostering and facilitating entrepreneurship in organizations: Implications for organization structure and human resource management practices. *Human resource management*, 25(4), 607-629.

- Soleimani, M., and Shahnazari, A., (2013). Studying Effective Factors on Corporate Entrepreneurship: Representing a Model. *Research Journal of Applied Sciences, Engineering and Technology* 5(4): 1309-1316, 2013 ISSN: 2040-7459; e-ISSN: 2040-7467.
- Turner, T., & Pennington, W. (2015). Organizational networks and the process of corporate entrepreneurship: how the motivation, opportunity, and ability to act affect firm knowledge, learning, and innovation. *Small Business Economics*, 45(2), 447-463.
- Umrani, W. A., Kura, K. M., & Ahmed, U. (2018). Corporate entrepreneurship and business performance: The moderating role of organizational culture in selected banks in Pakistan. *PSU Research Review*.
- Uma, S. (2003). Research methods for business.
- Urban, B., & Wood, E. (2015). The importance of opportunity recognition behaviour and motivators of employees when engaged in corporate entrepreneurship. *Journal of Business Economics and Management*, 16(5), 980-994.
- Wakkee, I., Elfring, T., & Monaghan, S. (2010). Creating entrepreneurial employees in traditional service sectors. *International Entrepreneurship and Management Journal*, 6(1), 1-21.
- Welbourne, T. (2006). Learning about leadership and firm growth through monthly data collection and dialogue with entrepreneurs. *International Entrepreneurship and Management Journal*, 2 (1), 39-55.
- Wood, R. and Bandura, A. (1989), "Social cognitive theory of organizational management", *Academy of Management Review*, Vol. 14, pp. 361-84.
- The World Bank, World Development Indicators. 2015.
- Yildiz, M. L. (2014). The effects of organizational culture on corporate entrepreneurship. *International journal of business and social science*, 5(5).
- Zhang, J. A., & Edgar, F. (2022). HRM systems, employee proactivity and capability in the SME context. *The International Journal of Human Resource Management*, 33(16), 3298-3323.
- Zeyada, M. (2018). Organizational culture and its impact on organizational citizenship behavior. *International Journal of Academic Research in Business and Social Sciences*, 8(3), 418-429.