

The Effect of after COVID-19 Human Resource Management Approaches on Organizational Entrepreneurship

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ABSTRACT

This study presents a measurement scale for human resource management approaches post-COVID-19 crisis to ease management planning and control of human resource activities through a Delphi-study involving 40 university experts. A causal relationship between post-COVID-19 human resource management approaches and organizational entrepreneurship was formed using contingency theory. Data were obtained using self-report mail survey involving 229 employees of Jordanian universities. Structural Equation Modelling (SEM) was used in data analysis, and the impact of Human Resource Management approaches on Organizational Entrepreneurship was determined whereby Human Resource Management approaches and Organizational Entrepreneurship were found positively linked. Hence, universities consider the Human Resource Management factors (Acquisition, Training and development, Incentives, Employee relationships, Evaluation, Health & Safety, Retention, and Termination) as dynamic factors post COVID-19. Via digital technology, this will boost entrepreneurship and generate innovation.

Keywords: Human Resource Management, Organizational Entrepreneurship, COVID-19, Jordan

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INTRODUCTION

The COVID-19 pandemic radically affects human health globally. In fact, globally, this pandemic has currently affected 38 million people, and more than 1 million people all over the world had lost their lives to this pandemic (WHO). In all countries, COVID-19 has been causing severe health fear and economic crisis. It also presents environmental and social challenges. In an effort to stop the virus spread, various governments all over the world have enforced and recommended the practice of social and physical distancing, and self-quarantining as well [1]. These include closing of institutions and the imposition of curfews, and such moves have considerably impacted the social and economic life of both people and organizations.

Countless of businesses have shut down while millions of people have lost their job because of COVID-19 pandemic. As for COVID-19 cases, the number has exceeded one million, and because of this pandemic, millions of people have had to live in lockdown, and this has imparted economic impact that may become worse in future [2]. Within the context of Canada, COVID-19 has caused the unemployment rate to increase, while work hours and involvement of labor force have reduced, particularly among workers who were younger, unmarried, non-white, and less-educated [3]. In the USA, from March 15 to March 28, 2020, [4] reported a loss of approximately 13 million jobs.

Notably, COVID-19 pandemic is more than just a general slowdown in economic activity; it is in fact a drastic short-term move in the mix of economic activities which, accordingly to [5] will consistently incur significant cost. The pandemic thus puts organizations into very difficult circumstances, prompting them to let their employees work remotely in order to remain operational.

For the situation of Jordan, COVID-19 and lockdown measures have significantly affected organizations and employment rate. This was evidenced by an online survey

involving 12,084 respondents whereby nearly half (43.2%) surveyed reported losing their jobs temporarily or permanently, while 6.1% reported receiving reduced salary, whereas another 6.2% reported being on unpaid leave [6].

Relevantly, interviews were carried out in Jordan in April to understand the impact of COVID-19 and lockdown measures on both businesses and employees. A total of 1,190 businesses were involved in these interviews and all of them reported facing difficulties especially in regard to cash flow, diminished demand and supply, in addition to facing interruption in supply chains [7].

In Jordan, the policies and measures related to this pandemic have been for protecting both the organizations and employees. Curfews have been imposed for protecting the Jordanians. At the same time, efforts have been made to alleviate the negative economic impacts of the pandemic on private sector companies and employees. These efforts were to allow the economic recover once the crisis ended. At the same time, adhering to public health and safety regulations and national priorities, the government of Jordan has been examining the prospect of steadily allowing some economic sectors to recommence their operation. The defense order No. 6 was accordingly issued by the Prime Minister of Jordan. This order regulates the relationship between employer and employee during the crisis, whereby the government grants incentives to employers that have to pay full wages to their workers. Through this order, the employer may not pressure workers to resign or lay them off unless as stipulated by the Labor Law [8].

COVID-19 pandemic outbreak is an unprecedented and rare event, that governments worldwide were not completely prepared with their emergency actions such as measures of social distancing, programs of public awareness, policies on testing and quarantining, and packages for income support [9]. Meanwhile, organizations have been striving to reduce their expenses

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on projects and optimize their manpower by employing those who could use digital technology efficiently. Notably, the astounding impact of COVID-19 pandemic may change the practices of human resource management whereby the focus will be more towards individuals who can efficiently utilize digital technologies such as web conferencing and online task completion. Also, in order to assure maximum return on investment, efficient employees are expected to be retained while poor ones will be terminated.

The literature on post COVID-19 human resource management practices, corporate entrepreneurship and virtual work is still in its infancy. As such, it is necessary to examine the impacts of COVID-19 outbreak on human resource management practices and corporate entrepreneurship. Accordingly, two main objectives are to be accomplished in this study as follows: to develop a measurement scale for the approaches of human resource management post COVID-19 crisis to facilitate management in planning and controlling human resource activities, and to form a causal relationship between post COVID-19 human resource management approaches and organizational entrepreneurship.

LITERATURE REVIEW

Theoretical foundation

Past studies in HRM domain were mainly looking into the impacts of HRM approaches and practices on either organizational-level outcome (e.g., commitment and organizational effectiveness) or on individual-level outcomes (e.g., motivations, turnover and organizational citizenship behavior). This study is of the view that HRM practices have linkage to certain practices, formal policies and philosophies which attract, form, motivate, and retain employees who assure effective functioning and survival of organization.

Based on contingency theory that stresses on fit, [10] stated that an organization's performance hinges on the fit between its resources, structure and strategies, and the outside environments relating to the economy, politics and technology. As proposed by the theory, 'fit' encompasses a match between the characteristics of organization and those of its surroundings. Accordingly, [11] indicated that the notion of equifinality embraced by contingency theory posits the presence of various ways to accomplish performance and that the right way is determined by specific firm's environment. In other words, an effective universal approach to strategy does not exist.

Equally, entrepreneurship studies reported support for contingency theory in new ventures. In examining new ventures, [12] indicated that new ventures involving multifaceted customer environments should not be too formalized – as opposed to new ventures involving simpler customer environments. In [13], it was found that CEOs with entrepreneurial orientation appear to bring more success when the firm operates in dynamic environments with low capital availability. Contingency theory is thus applied in this study in covering the dimensions of HR practices as follows: Acquisition, Training and development, Incentives, Employee relationships, Evaluation, health & safety, Retention, and termination. All these dimensions are deemed as the organization's environment factor in the improvement and formation of entrepreneurship orientation during COVID-19 outbreak as a solution.

Acquisition

The concept of acquisition was described in [14] as a reasonably rapid and economical obligation in the expansion into new markets and the incorporation of new technologies. Nonetheless, success of acquisition is not always assured. In fact, many acquisitions have been found to lack the right aims and objectives. Notably, many cases of acquisition especially the failed ones appeared to have disregarded the factors linked to the issues and activities of human resources. In this regard, many studies have stressed the need to address human resource problems, activities, and challenges during acquisition. The post-merger integration method could be a highly challenging task. According to [15] there are various activities and tasks to be executed including forming the newest groups and departments.

In a comparable study, [16] mentioned Human Resources neglect as a reason (among others) for acquisition failure. Problems associated with human resource are regarded as sensitive and are frequently unnoticed during acquisition. During the acquisition process, an involved organization would generally analyse the feasibility, money and legal fronts. Somehow, in this situation, it is not uncommon to neglect the human resources of the organizations in question. Failure in acknowledging the importance of human resources within their organizations and their role in integration success may lead to failure in the long run. Hence, the present study will measure acquisition from many aspects including Person-organization fit, Entrepreneurship and Talent management capabilities, Web conferencing and online working skills.

Training and development

Training and development involve a process that improves the skills, knowledge, attitude and behaviour of employees, which ultimately will improve their performance [17] Training and development also will increase the superiority of organization. Training involves two key aspects: 1) organization efficiency, and 2) people and technology. [18] pertinently described training and development as a process and method for the improvement of the aptitude, skills, ability, knowledge, and attitude of employees in the execution of their specific work-related job. Through training, employees can transform their old talent and knowledge into new ones more easily. In [19] the concept of training and development was described as a systematic progression of knowledge, skills and abilities in the execution of job-related duties within organization. This study will therefore evaluate training and development using training needs assessment, which will link employee development paths to organizational objectives and deliver innovation and entrepreneurship programs.

Incentives

Agency problems are resolvable through the use of compensation contract between owner and manager [20]. According to [21] and [22]. this contract can be grounded upon the behavior of manager or the result of such behavior. For instance, in behavior-based contracts, managers are compensated based on their actions while the outcomes are not taken into account. On the other hand, in outcome-based contracts, managers are compensated based on their managerial actions' outcomes. As can be construed, payment of manager in behavior-based contract is not affected by performance, while in outcome-based contract, it is affected by performance. [23] stated that performance-based

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incentives reduce agency problems because it aligns managers' interests with those of owners.

Performance-based incentives have been applied by many scholars in describing the decisions in various functional domains that include dynamic capabilities [24] These include acquisitions [25], innovation [26] and alliance management [27] Incentive system boosts the firm to dynamically pursue its objectives [28]. The incentive system implemented in firms is fair at rewarding people who achieve the objectives that the firm had set. In this regard, the reward system truly recognizes those with the greatest amount of contribution. Also, aside from encouraging goal accomplishment, the system greatly contributes to attracting and retaining talented employees for the formation of ambitious and innovative organization.

Employee relationships

As a form of interpersonal relationship, employee relationships are a concept that emerged during the 20th century. It encompasses a relationship of right and responsibility, and management between the organization and the employees. [29] indicated that employee relation is primarily impacted by the economic, political, legal and socio-cultural environment of the society. As indicated in [30] this internal relationship deals primarily with the internal relationship between the employer and employee, focusing on theories of human behaviour. Meanwhile, [31] described this relationship as one between the employer and employees or the manager and the staff, with the purpose of forming good morale, trust and work environment that is both productive and conducive.

Relevantly, [32] described employee relationship management as a dynamic process that involves management of relationship between knowledge worker and corporation such that these workers decide to continue a reciprocally beneficial exchange of intellectual assets for recompense in a manner that is valuable to the corporation, and at the same time, these workers are discouraged from involving in unbeneficial activities. In [33] employee relationships were described as a process employed by companies to manage all interactions with employees effectively, which lead to the accomplishment of organizational goals. Perusing past studies and considering the current situation, this study measures employee relations using aspects and concepts including Tacit Knowledge Sharing, Open door policy and Support employees with high-risk concerns.

Evaluation

Evaluation is vital for management improvement, and by way of organizational assessment or evaluation, [34] indicated that organization's effectiveness is measured based on its functioning, problems and achievements from the outlook of behavior and social system. [35] stated that organizational assessment encompasses measurement of variables associated with patterns of organizational behavior and effectiveness. This assessment is highly valuable for managers as it assists them in improving the efficiency and effectiveness of their operations. It can also be applied as a tool to create public support for research programmers and outreach activities.

The evaluation may be ex-ante, current or Ex-post. Ex-ante evaluation is performed before implementation involving an analysis of internal and external consistency of plans, programs and projects. Meanwhile, current or progress evaluation or also known as concurrent

evaluation is carried out during implementation at different points, involving the measurement of usage extent of resources and materials, the performance of activities and the accomplishment of partial results reached concerning the set plans. Ex-post evaluation is carried out after implementation, and as described in [36] this type of evaluation involves the evaluation of the results and impact concerning the set objectives. Evaluation is measured in this study with the use of multi aspects including Team performance and effectiveness, Online capabilities and working from home, Cost reduction and income generation.

Health & Safety

[37] defined Health and Safety Management Systems as a blend of planning and review, the management organizational arrangements, the consultative arrangements, and the specific program elements that jointly function for the improvement of health and safety performance. [38] relevantly indicated that in enterprises, the efficient use of communication and information networks further decreases the number of accidents while improving further the perception of workers towards management's commitment to OHS.

Safety management systems comprise integrated mechanisms devised for controlling the risks which may impact the health and safety of workers in organizations. At the same time, the systems would assure the compliance of company to the regulations. [39] indicated that a good safety management system should be fully integrated with the company and with binding power, whereby a unified system of policies, strategies and procedures assures consistency and coordination. Health and safety policy and procedures are integral in forming efficient health and safety management framework, and as indicated in [40] and [41] these policies signify the readiness of management in providing workers with a workplace that is not only safe, but healthy as well.

Health safety risk management at workplace is a process comprising three phases as follows: hazard identification, hazard risk evaluation, and risk control [42]; [43];[44] It is important that risks are understood and managed to allow organization to improve its performance and competitive advantage. Health and Safety are therefore measured in this study through the promotion of hygiene practices, health culture, and restricted gathering and events.

Retention

Irrespective of industry, retention is a global concern, and the maintenance of efficient and talented employees is no simple task. According to [45] employee retention, either involving new or existing employees, is a challenge facing leaders. Darkwa, Newman, [46] indicated that retention occurs when the strategic actions developed and used by organization leaders encourage employees to remain with the organization. It is thus important for leaders of organization to know that failure in using effective retention strategy may lead to loss of valued employees, reduced profits, undesirable reputation, and loss of prized organizational knowledge ([47];[48]).

Organizational or economic needs impact employee retention needs [49];[50] accordingly stated the importance of managers in having the capacity in determining the right employees for the workplace. In order that valuable employees could be retained, a plan of action should be included in the business operations strategy. Furthermore, a steady amount of employed human capital is necessary in the accomplishment of

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organizational goals, while failure in attracting and retaining employees may decrease the organization's competitiveness. It is important that leaders of organization provide employees with a motivating environment so that employees would stay and not leave for other competing organization. This is achieved through the provision of innovation and formation of novel insights. Accordingly, the present study looks into the role of Job stability feeling Job Autonomy, Pleasant work atmosphere.

Termination

The subject of termination has been researched but interest towards this subject has been poor owing to its restrictiveness and narrowness as a concept. Accordingly, when perceived just as a binary (as complete and sustained abolishment); only a handful of cases would be deemed as termination events. The concept of termination should be refined to increase the number of observations. This would provide researcher with adequate amount of variation in their analysis and theorization under which conditions of termination is likely or unlikely to take place. It should be noted that pure termination events may be exceptionally rare. Still, it is useful to analyze the various levels or intensities of termination events. These approaches to conceptual refinement are significant in organizational termination ([51];[52]).

Organizational entrepreneurship

Organizational entrepreneurship entails the creation and development of an entrepreneurial culture in business for improving the innovative capacity of an organization. In describing this concept, Shehata, [53] stated that it requires that the organization come up with fresh resources while consistently renewing their methods. Organizational entrepreneurship is perceivable through successful search for entrepreneurial opportunities generated by asymmetries of market or technological knowledge [54] In their study, [55] highlighted the significant role of organizational entrepreneurship in expanding the economy and in improving productivity.

Dynamic firms operating within an unstable environment have to be innovative and flexible [56] Meanwhile, organizational entrepreneurship is perceived as a process of revitalizing the firm's capability in accomplishing and implementing innovative skills and employees' abilities. Pertinently, [57] mentioned that organizational entrepreneurship is linked to the pursuance of opportunities by an organization. Organizational entrepreneurship is influenced by the learning ability of organization via new knowledge search and the exploitation of the existing knowledge. [58] described organizational entrepreneurship as a strategic tendency which includes alteration of products, processes, services, strategies and the entire organization as well. Meanwhile, entrepreneurial behaviour involves innovation, activity and risk-taking [59].

As key aspect of firm performance, [60] and [61] indicated the likelihood of organizational entrepreneurship to be impacted by HR management systems. Accordingly, this study addresses several aspects as follows: Internal recruitment to cater to the hiring needs, exit interviews to ascertain the root causes of termination, connecting terminations to job requirements, and termination primarily for poor work performance. Hence, the hypothesis below is presented:

H: Human Resource Management approaches have a positive impact on Organizational Entrepreneurship

METHOD

Study One (Pilot Study)

This study carried out pilot study in its preliminary examination of the questionnaire. The items of the questionnaire were supplemented with a five-point Likert-scale with five scale points from the scale of 1 representing "Strongly disagree" to that of 5 representing "Strongly agree." A total of 8 critical dimensions were identified from the literature review, and they were as follows: Acquisition, Training and Development, Incentives and Recognition, Employee Relations, Employee Evaluation, Health and Safety, Retention, and Termination.

The Delphi method was carried out among the faculty and experts in the human resource management domain and the purpose was to identify the appropriate measures. This led to the generation of 25 items, based on the discussions and in-depth interviews with the faculty, staff, and managers in Jordanian universities.

Pilot study involving an instrument containing 25 items was administered to a sample comprising 40 staffs (n = 40) of Jordanian universities. The instrument was equipped with a cover letter containing pilot study instructions.

Exploratory factor analysis (EFA) and Confirmatory Factor Analysis (CFA) on the 25 items were executed using Statistical Package for the Social Sciences (SPSS). Principal Component Analysis for the Extraction method and Promax Rotation with Kaiser Normalization for the Rotation method run with SPSS were executed on the 25 items on human resource management. The EFA results show Kaiser-Meyer-Olkin of 0.604 and this fulfils the sampling adequacy proposed in Tabachnick and Fidell (2001). Also, Bartlett's test of sphericity demonstrates significance (Approx. Chi Square = 447.535, p < 0.001), which means that the correlation matrix was an identity matrix.

As can be seen in Table 1, the extracted factors have eigenvalue of greater than Kaiser's suggested threshold of 1. In the analysis, the overall explained variance of the eight factors was 76.694%, with factor 1 alone showing a variance of 17.971%. Meanwhile, the remaining 7 factors combined explained 58.903% of the variance. According to [62], measures of 60% or more, are tolerable, while those higher than 70% are regarded as excellent.

Table 1 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.493	17.971	17.971	4.493	17.971	17.971	3.054

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2	4.213	16.852	34.823	4.213	16.852	34.823	3.029
3	2.619	10.475	45.298	2.619	10.475	45.298	2.337
4	2.081	8.325	53.623	2.081	8.325	53.623	2.557
5	1.927	7.707	61.329	1.927	7.707	61.329	2.975
6	1.426	5.702	67.032	1.426	5.702	67.032	2.905
7	1.337	5.349	72.380	1.337	5.349	72.380	2.518
8	1.078	4.313	76.694	1.078	4.313	76.694	2.750

Results of the factor analysis displaying the factor loadings for all items in pilot study (Table 2).

Table 2 Factor Analysis for Human Resource Management Approaches							
Statements	Components						
Acquisition							
1. Person-organization fit							
2. Entrepreneurship and Talent management capabilities.			.895				
3. Web conferencing and online working skills			.748				
			.846				
Training & Development							
4. Conducting training needs assessment					.845		
5. Linking employee development paths to organizational objectives					.846		
6. Delivering innovation and entrepreneurship programs					.778		
Incentives							
7. Performance-linked incentives					.849		
8. Combination of individual and team incentives					.898		
9. Combination of financial and non-financial rewards					.782		
Employee Relations							
10. Tacit Knowledge sharing							.693
11. Open door policy							.779
12. Support employees with high-risk concerns							.816
Evaluation							
13. Team performance and effectiveness							.751
14. Online capabilities and working from home							.792
15. Cost reduction and income generation							.798
Health & Safety							
16. Promote healthy hygiene practices						.837	
17. Develop health culture						.847	
18. Limit gathering and events.						.734	
Retention							
19. Job stability feeling			.881				
20. Job Autonomy			.837				
21. Pleasant work atmosphere			.758				
Termination							
22. Internal recruitment to fill hiring needs	.838						
23. Conducting exit interviews to investigate the root causes of termination	.626						
24. Linking terminations to job requirements	.801						
25. Termination is mainly for poor work performance	.793						

From EFA results, all factor loadings were greater than .40. This means that no deletion of factor was necessary. [63] indicated that for items deletion, the minimum cut-off limit is 0.40. Additionally, the Cronbach alpha coefficient fell in the range between 0.62 and 0.79. Hence, the instrument has internal consistency. The details of the factors are as follows: Acquisition (items 1-3, alpha=.681), Training and Development (items 4-6, alpha=.632), Incentives and Recognition (items 7-9, alpha=.766), Employee Relations (items 10-12, alpha=.692), Evaluation (items 13-15, alpha=.616), Health and Safety (items 16-18, alpha=.727), Retention (items 19-21, alpha=.785), and Termination (items 22-25, alpha=.749).

(Study Two)

Procedures and Data Collection

Study two involved bigger group of participants, specifically 229 employees of public and private universities in Jordan. The purpose of this study was to evaluate and validate the post COVID-19 Human Resource Management approaches. It also attempted to examine the effect of these approaches on organizational entrepreneurship. Survey questionnaires, in a form of self-report mail survey, were used in gathering the data from the participants. The questionnaire consisted of three parts. The first part concerns the demographic characteristics of respondents, the second part concerns the human resource management approaches, and the third part concerns organizational entrepreneurship. Demographic characteristics cover items on gender, age, marital status, education, and employment. Human Resource Management approaches were represented by

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25 items explored in pilot study through factor analysis (see Table 2). Organizational Entrepreneurship was represented by 20 items from [64] Four items were obtained from each sub-division of organizational entrepreneurship: Management support for corporate entrepreneurship, Work discretion, Rewards/reinforcement, Time availability, and Organizational boundaries. Structural Equation Modelling (SEM) was used in the analysis of data.

Results

Respondents' profile

The results show that 51.5% (n = 118) of participants were male and 48.5% (n =111) were female. In terms of age, the results show that the average of age of participants was 42.1 years with 10.4 as standard

deviation. Specifically, age wise, most participants (41.0%, n = 94) were in the age group of between 36 and 45 years old. The majority of participants (75.5%, n = 173) were married, while the remaining (24.4%, n = 56) were either single or divorced. In terms of the education level of

Descriptive Statistics and Pearson Correlations

participants, the results show that 9.6% (n = 22) held Bachelor's degree, while 22.7 % (n = 52) and 67.7 % (n=155) had master's degree and PhD respectively. Approximately 9.6% (n = 22) of participants worked with public sector, while the remaining majority (90.4%, n = 207) worked with private sector.

Descriptive statistics and the bivariate correlation among the subscales were performed in this study and the results are as displayed in Table 3.

Note: Alpha is represented in parentheses along diagonal; **p<.01
As shown in Table 3, all sub-constructs are significantly correlated. As can be observed, the highest mean was scored by Health and Safety at 3.924 with a standard

	Mean	S. D	Acquisition	Training	Incentives	Relations	Evaluation	Health	Retention	Termination	Support	discretion	Rewards	Time	Bound
Acquisition	3.707	.910	(.856)	.661**	.570**	.679**	.608**	.569**	.540**	.445**	.661**	.512**	.542**	.450**	.546**
Training	3.665	.885		(.842)	.647**	.622**	.635**	.629**	.551**	.552**	.567**	.484**	.541**	.412**	.569**
Incentives	3.442	.902			(.825)	.651**	.584**	.557**	.582**	.583**	.504**	.466**	.575**	.459**	.462**
Relations	3.629	.917				(.853)	.655**	.639**	.610**	.593**	.615**	.485**	.595**	.448**	.569**
Evaluation	3.750	.911					(.828)	.684**	.581**	.541**	.543**	.436**	.586**	.427**	.570**
Health	3.924	.910						(.867)	.630**	.616**	.607**	.504**	.633**	.494**	.594**
Retention	3.498	.967							(.842)	.668**	.580**	.452**	.613**	.424**	.525**
Termination	3.451	.932								(.861)	.539**	.471**	.630**	.469**	.495**
support	3.506	.974									(.876)	.658**	.675**	.588**	.593**
discretion	3.380	.888										(.876)	.606**	.573**	.596**
Rewards	3.535	.904											(.864)	.533**	.604**
Time	3.322	.851												(.789)	.503**
Bound	3.655	.820													(.792)

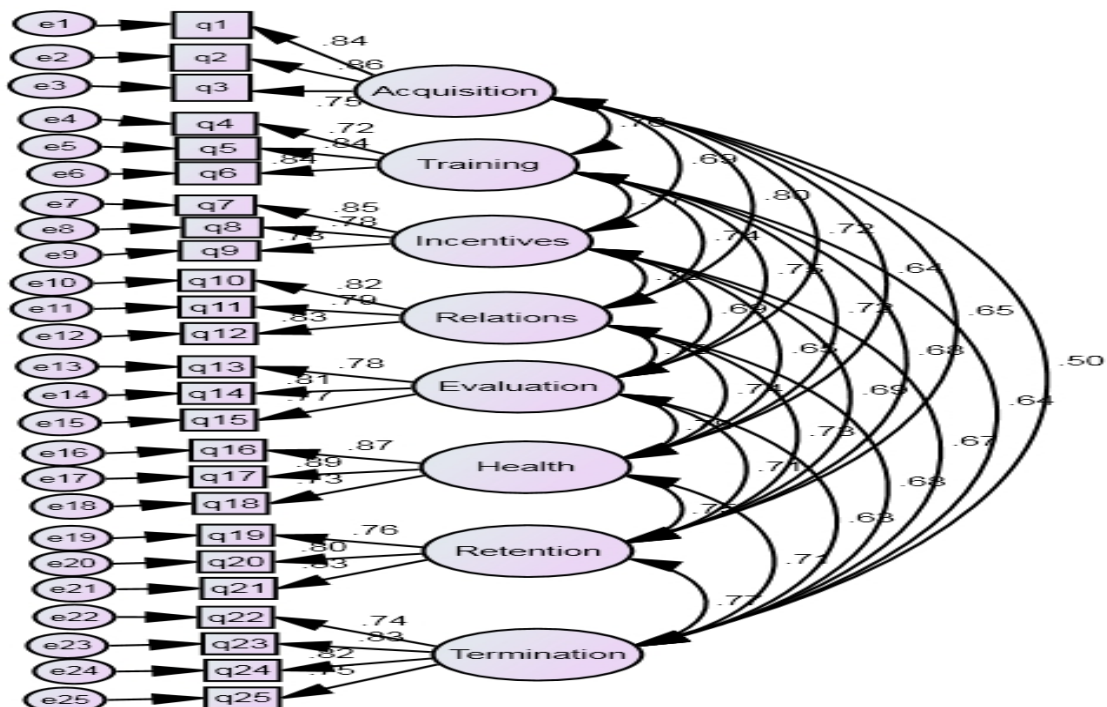
deviation of 0.910, while the lowest mean was scored by Time Availability with 3.322 with a standard deviation of (0.851). Based on [65] Alpha coefficient that falls in the range between 0.789 and 0.876 denotes satisfactory internal reliability.

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Table 3: Descriptive Statistics, Pearson Correlations, and Reliability Coefficients

Confirmatory Factor Analysis for Human Resource Management`

Confirmatory factor analysis (CFA) was run on the 25-item scale. This was to evaluate and validate the links between latent constructs and their observed measures. As shown in Figure 1, the indicators all significantly loaded onto the fitting factor, with standardized factor loadings between 0.72 and 0.89.



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Figure 1: Confirmatory Factor Analysis to Test Measurement Model

From the results, it is clear that the eight-factor model has good indices and is well suited with the sample data. The model value of CMIN/DF ratio (1.699) was smaller when compared to the recommended threshold of 3.000 as proposed in Kline (2005). Further, the CFA results of other indices for evaluating the data fit are as follows: CFI = 0.954; IFI = 0.955; RMSEA = 0.055; and SRMR = 0.044. As evidenced by the results, the indices were within the proposed limits. Additionally, the obtained t-values which fall in the range between 10.959 and 17.442 appear to be bigger than 1.96 at the 0.05 level. All item loadings hence generated significant loadings. Based on [66] it can be

deduced that each item was a good indicator of its fitting variable.

The uni-dimensionality was verified in order to affirm that each item has linkage to one and only one construct ([67];[68]). The values of alpha coefficient in this study were within the range of 0.825-0.867, while composite reliability (CR) estimates were within the range of 0.709-0.872, demonstrating good reliability with high-internal consistency. This is because all the estimated values are bigger than the suggested level of 0.70 ([69];[65]). The value of average variance extracted (AVE) of all 8 factors is between 0.615 and 0.709 and is greater than the minimum threshold of 0.5 proposed in [68].

Table 4: CR, AVE, and MSV for all Human Resource Management Sub constructs

	CR	AVE	MSV
Termination	0.864	0.615	0.590
Acquisition	0.709	0.709	0.637
Training	0.844	0.645	0.598
Incentives	0.828	0.618	0.602
Relations	0.854	0.660	0.637
Evaluation	0.829	0.618	0.616
Health	0.872	0.695	0.608
Retention	0.843	0.642	0.590

As shown in Table 4, all values of maximum shared variance (MSV) are smaller than their matching values of average variance extracted (AVE). Discriminant validity was thus supported.

Human Resource Management & Organizational Entrepreneurship Model

Confirmatory Factor Analysis was carried out to evaluate the model's construct validity on the effect of post COVID-19 human resource approaches on Organizational Entrepreneurship. The model hypothesized demonstrated good model-fit indices. The value of CMIN/DF ratio is 1.745. This value was smaller than the proposed threshold of 3.000 (Kline, 2005); CFI = 0.908; IFI = 0.910; SRMR = 0.048; and RMSEA = 0.057. Based on the cut-off values, CFA produced good fit for the proposed model.

As shown, the t-values obtained in this study are between 6.694 and 17.506, and these values are greater than 1.96 at the 0.05 level. As such, all item loadings generated substantial loadings. Furthermore, all composite reliabilities (CR) and average variance expected (AVE) values are greater than the proposed values of 0.70 and 0.50 consecutively. The alpha coefficient values are between 0.789 and 0.876, whereas the composite reliability (CR) estimates are between 0.712 and 0.878. As such, there is good reliability with high-internal consistency because all the estimated values are greater than the proposed level of 0.70 ([69]; [65]). The value of average variance extracted (AVE) of all eight factors is in the range between 0.503 and 0.712 is greater than the minimum threshold of 0.5 as proposed in [68].

Table 5: CR, AVE, and MSV for all Sub-constructs of the Causal Model

	CR	AVE	MSV
Termination	0.865	0.615	0.590
Acquisition	0.712	0.712	0.637
Training	0.845	0.646	0.564
Incentives	0.829	0.618	0.602
Relations	0.853	0.660	0.637
Evaluation	0.829	0.619	0.615
Health	0.871	0.695	0.608
Retention	0.843	0.642	0.590
WorkDiscr	0.878	0.644	0.552
Rewards	0.871	0.629	0.582

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TimeAvail	0.796	0.503	0.501
Boundries	0.806	0.520	0.508
MgSupport	0.876	0.640	0.582

Table 5 shows comparison of maximum shared variance (MSV) values with their respective values of average variance extracted (AVE). The comparison shows that Ave is larger than MSV values. This lends support to discriminant validity. Figure 2 displays standardized regression weights and standardized effects of this relationship. The causal model between the Independent Construct, human resource management approaches and

the Dependent Construct, organizational entrepreneurship, are displayed in Figure 2 whereby the relationship of sub-constructs with their construct is demonstrated. In this regard, employee relations (0.89) were shown as the most correlated sub-construct to human resource management approach, while management support (.90) was the most correlated sub-construct to organizational entrepreneurship.

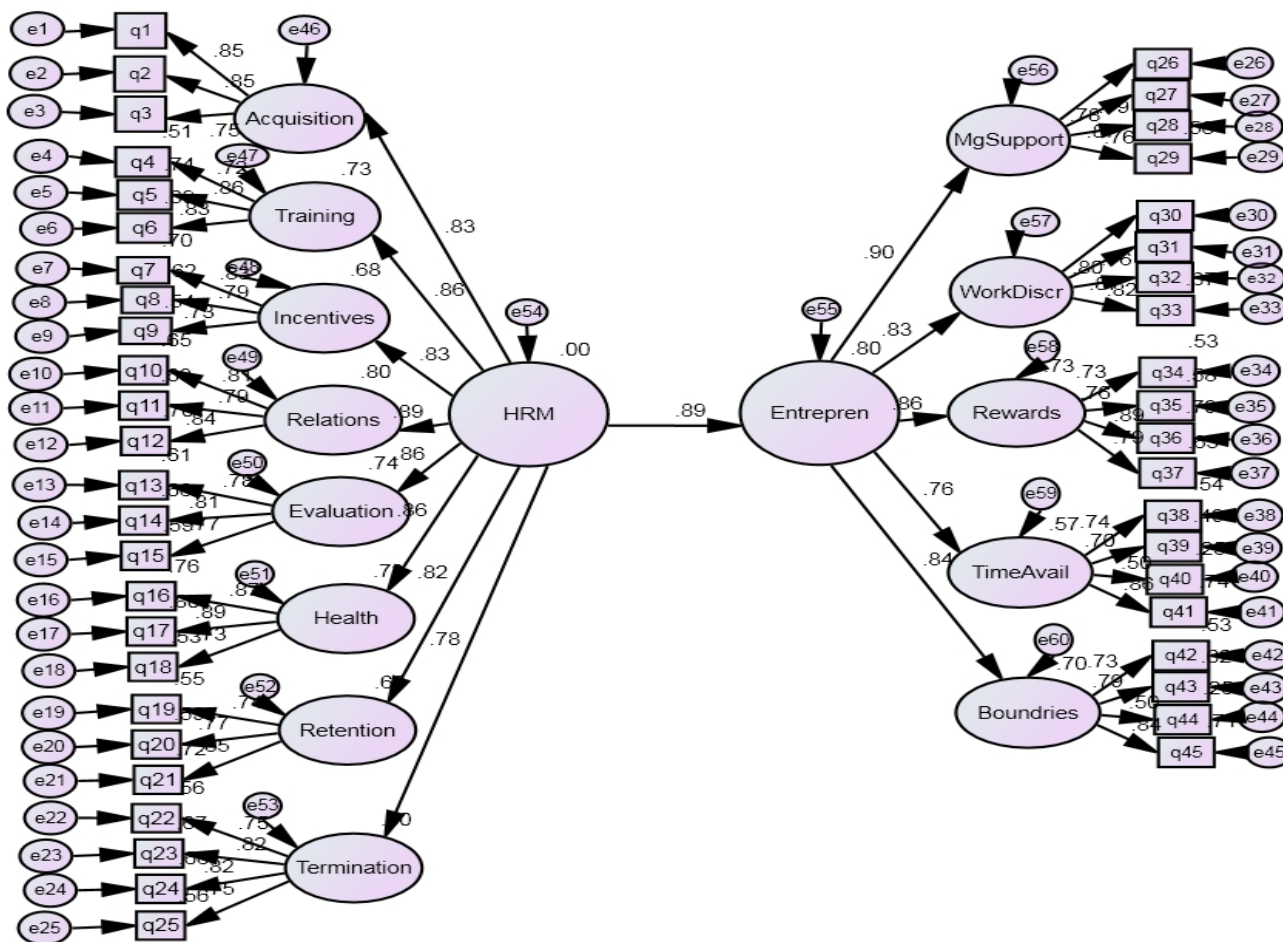


Figure 2: Standardized Regression Weights and Standardized Effects of the Model

The direct effect of post COVID-19 human resource management approaches on organizational entrepreneurship is significant (β coefficient = .89, $p \leq .001$) lending support to the theoretical rationale previously indicated.

DISCUSSION AND CONCLUSION

COVID-19 pandemic has drastically changed the lives of people at social and economic levels, and for this reason, business enterprises are forced to come up with new strategies and policies, in order to deal with this unprecedented situation and to plan ahead. This encompasses a new era of business management. In view of this, the practices of human resources management including acquisition, training and development, motivation, in addition to other practices are among the key managerial functions that are likely to evolve and

change. Hence, concerning the qualities of hired people, strategist may have to reprioritize their concerns. This paper thus attempted to construct a new measurement for the countless post COVID-19 human resource management practices, while also forming a linkage between such practices and organizational entrepreneurship.

Based on contingency theory, the proposed measurements were significant in predicting organizational entrepreneurship. The eight human resource dimensions (Acquisition, Training & Development, Incentives, Employee Relations, Evaluation, Health & Safety, Retention, and Termination) imparted positive impact on organizational entrepreneurship. Hence, the comparatively quick and economical appreciation will expand into new markets and incorporate new technologies via the following: Person-

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organization fit, Entrepreneurship and Talent management capabilities, Web conferencing and online working skills Training & Development, Conducting training needs assessment, Linking employee development paths to organizational objectives, Delivering innovation and entrepreneurship programs all boost organizational entrepreneurship by motivating the organization to form new projects and innovative ways to adapt to the drastic changes caused by the outbreak of COVID-19.

Also, the activation an application of Performance-linked incentives, combined with the individual and team incentives, and the financial and non-financial rewards will affect the performance of organization which may facilitate organization in moving forward and improving itself. In addition, the establishment of relationship between the organization employees based on Tacit Knowledge sharing, and Open-door policy between the in-charge persons and employees will prevent the organization from any current or future crises.

Evaluation is equally important through applying and raising the team performance and effectiveness and working vis online - from home, the same effect for the Health & Safety which raising up the awareness policies Promote healthy hygiene practices and Develop health culture leading to sustain the safety inside the organization staff and customer and let them work safely and leading them to innovate and draw new ideas to combat the crises such COVID-19, also with regard to the Retention is help on Job stability feeling and, Job Autonomy, Pleasant work atmosphere that makes the employment environment stable through the employee's viewpoint so based on that will be sincere. Finally, to avoid the Termination consequences, several steps need to be taken such as Internal recruitment to fulfil the hiring needs, exit interviews to investigate the root causes of termination, and link terminations to job requirements.

REFERENCES

1. Rothan HA, Byrareddy SN. The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. *Journal of autoimmunity*. 2020 May 1; 109:102433.
2. Berman Y. The distributional short-term impact of the covid-19 crisis on wages in the united states. arXiv preprint arXiv:2005.08763. 2020 May 18.
3. Beland LP, Brodeur A, Wright T. COVID-19, stay-at-home orders and employment: Evidence from CPS data.
4. Cajner, T., Crane, L. D., Decker, R., Hamins-Puertolas, A., & Kurz, C. J. (2020). Tracking labor market developments during the covid-19 pandemic: A preliminary assessment.
5. Costa Dias, M., Joyce, R., Postel-Vinay, F., & Xu, X. (2020). The challenges for labour market policy during the Covid-19 pandemic. *Fiscal Studies*, 41(2), 371-382.
6. Desai H. States of fragility and official development assistance.
7. International Labor Organization (ILO) Impact of the COVID-19 pandemic on enterprises in Jordan, 25 June 2020.
8. Roya News, Razzaz-issues-Defense-Order—6, <https://en.royanews.tv/news/20641/PM-> 2020 August 4.
9. Ashraf BN. Economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets. *Journal of behavioral and experimental finance*. 2020 Sep 1; 27:100371.
10. Van de Ven AH, Drazin R. The concept of fit in contingency theory. MINNESOTA UNIV MINNEAPOLIS STRATEGIC MANAGEMENT RESEARCH CENTER; 1984 Nov 1.
11. Lawrence PR, Lorsch JW. Organization and environment: Managing differentiation and integration. 1967.
12. Chowdhury S. The moderating effects of customer driven complexity on the structure and growth relationship in young firms. *Journal of Business Venturing*. 2011 May 1;26(3):306-20.
13. Wiklund J, Shepherd D. Entrepreneurial orientation and small business performance: a configurational approach. *Journal of business venturing*. 2005 Jan 1;20(1):71-91.
14. Alavuo NH. Modern recruitment process as a competitive advantage in talent acquisition: A Recruiter's Playbook.
15. Dolker T, Sushmitha BR. A study on the hr perspective of mergers & acquisitions. *Asian Journal of Multidimensional Research (AJMR)*. 2020;9(2):12-20.
16. Yang Y, Liu X, Shen C, Lin Y, Yang P, Qiao L. In silico spectral libraries by deep learning facilitate data-independent acquisition proteomics. *Nature communications*. 2020 Jan 9;11(1):1-1.
17. Chaudhry NI, Jariko MA, Mushtaque T, Mahesar HA, Ghani Z. Impact of working environment and training & development on organization performance through mediating role of employee engagement and job satisfaction. *European Journal of Training and Development Studies*. 2017 Apr;4(2):33-48.
18. Aswathappa KE. Human resource and personnel management. Tata McGraw-Hill Education; 2005.
19. Armstrong M, Taylor S. Armstrong's handbook of human resource management practice.
20. Asija A, Ringov D. Dynamic capabilities: The role of board monitoring and managerial incentives. *BRQ Business Research Quarterly*. 2020 Jul 18:2340944420916309.
21. Al-Adamat A, Al-Gasawneh J, Al-Adamat O. The impact of moral intelligence on green purchase intention. *Management Science Letters*. 2020;10(9):2063-70.
22. Makri M, Lane PJ, Gomez-Mejia LR. CEO incentives, innovation, and performance in technology-intensive firms: a reconciliation of outcome and behavior-based incentive schemes. *Strategic Management Journal*. 2006 Nov;27(11):1057-80.
23. Eisenmann TR. Internet companies' growth strategies: determinants of investment intensity and long-term performance. *Strategic Management Journal*. 2006 Dec;27(12):1183-204.
24. Asija A, Ringov D. Dynamic capabilities: The role of board monitoring and managerial incentives. *BRQ Business Research Quarterly*. 2020 Jul 18:2340944420916309.
25. Basuil DA, Datta DK. Value creation in cross-border acquisitions: The role of outside directors' human and social capital. *Journal of Business Research*. 2017 Nov 1;80:35-44.

The Effect of after COVID-19 Human Resource Management Approaches on Organizational Entrepreneurship

26. Makri M, Lane PJ, Gomez-Mejia LR. CEO incentives, innovation, and performance in technology-intensive firms: a reconciliation of outcome and behavior-based incentive schemes. *Strategic Management Journal*. 2006 Nov;27(11):1057-80.
27. Kang R, Zaheer A. Determinants of alliance partner choice: Network distance, managerial incentives, and board monitoring. *Strategic Management Journal*. 2018 Oct;39(10):2745-69.
28. Taiwo AS, Feyisayo KE, Olamilekan LA. Corporate Entrepreneurship, HRM Practices and Firm Performance. *Market Forces*. 2020 Jul 11;15(1).
29. Yongcai, Y. Employee Relationship Management of Small and Medium-sized Enterprises. In 2010 International Conference on E-Business and E-Government (2010, May), pp. 940-943.
30. Liao SH, Chang JC, Cheng SC, Kuo CM. Employee relationship and knowledge sharing: a case study of a Taiwanese finance and securities firm. *Knowledge Management Research & Practice*. 2004 Apr 1;2(1):24-34.
31. Bajaj B, Robins RW, Pande N. Mediating role of self-esteem on the relationship between mindfulness, anxiety, and depression. *Personality and Individual Differences*. 2016 Jul 1; 96:127-31.
32. Al-khozondar N. Employee relationship management and its effect on employee's performance at telecommunication and banking sectors.
33. Deme A, Worlu G. Workplace diversity and employee relationship management in the Nigeria police, rivers state. *Int J Adv Acad Res Social Manage Sci*. 2017;3(5):1-21.
34. Lawler EE, Nadler D, Cammann C. *Organizational assessment: Perspectives on the measurement of organizational behavior and the quality of work life*. New York: Wiley; 1980.
35. Köseoğlu MA, Parnell J. The evolution of the intellectual structure of strategic management between 1980 and 2019. *Journal of Strategy and Management*. 2020 Sep 22.
36. Spanache I, Havas A. *A Practical Guide on Ex Ante Evaluation for Research Infrastructures*.
37. Chang JI, Liang CL. Performance evaluation of process safety management systems of paint manufacturing facilities. *Journal of Loss Prevention in the Process Industries*. 2009 Jul 1;22(4):398-402.
38. Gyekye SA, Salminen S, Ojajarvi A. A theoretical model to ascertain determinates of occupational accidents among Ghanaian industrial workers. *International journal of industrial ergonomics*. 2012 Mar 1;42(2):233-40.
39. Fernández-Muñiz B, Montes-Peón JM, Vázquez-Ordás CJ. Relation between occupational safety management and firm performance. *Safety science*. 2009 Aug 1;47(7):980-91.
40. Law R, Dollard MF, Tuckey MR, Dormann C. Psychosocial safety climate as a lead indicator of workplace bullying and harassment, job resources, psychological health and employee engagement. *Accident Analysis & Prevention*. 2011 Sep 1;43(5):1782-93.
41. Hu X, Yan H, Casey T, Wu CH. Creating a safe haven during the crisis: How organizations can achieve deep compliance with COVID-19 safety measures in the hospitality industry. *International Journal of Hospitality Management*. 2021 Jan 1;92:102662.
42. Lingard H, Holmes N. Understandings of occupational health and safety risk control in small business construction firms: barriers to implementing technological controls. *Construction Management and Economics*. 2001 Mar 1;19(2):217-26.
43. Kaynak R, Toklu AT, Elci M, Toklu IT. Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach. *International Journal of Business and Management*. 2016;11(5):146-66.
44. Aruna M, Anitha J. Employee retention enablers: Generation Y employees. *SCMS Journal of Indian Management*. 2015 Jul 1;12(3):94.
45. Darkwa EK, Newman MS, Kawkab M, Chowdhury ME. A qualitative study of factors influencing retention of doctors and nurses at rural healthcare facilities in Bangladesh. *BMC health services research*. 2015 Dec;15(1):1-2.
46. Kraemer KL, McGinnis KA, Fiellin DA, Skanderson M, Gordon AJ, Robbins J, Zickmund S, Bryant K, Korthis PT. Low levels of initiation, engagement, and retention in substance use disorder treatment including pharmacotherapy among HIV-infected and uninfected veterans. *Journal of substance abuse treatment*. 2019 Aug 1; 103:23-32.
47. Singh S, David R, Mikkilineni S. Organizational virtuousness and work engagement: Mediating role of happiness in India. *Advances in Developing Human Resources*. 2018 Feb;20(1):88-102.
48. Sarmad M, Ajmal MM, Shamim M, Saleh M, Malik A. Motivation and Compensation as Predictors of Employees' Retention: Evidence from Public Sector Oil and Gas Selling Organizations. *Journal of Behavioural Sciences*. 2016 Dec 1;26(2).
49. Wei YC. Do employees high in general human capital tend to have higher turnover intention? The moderating role of high-performance HR practices and PO fit. *Personnel Review*. 2015 Aug 3.
50. Boin A, Kuipers S, Overdijk W. Leadership in times of crisis: A framework for assessment. *International Review of Public Administration*. 2013 Apr 1;18(1):79-91.
51. MacCarthaigh M. Agency termination in Ireland: Culls and bonfires, or life after death? *Public Administration*. 2014 Dec;92(4):1017-37.
52. Shehata GM, Montash MA, Areda MR. Examining the interrelatedness among human resources management practices, entrepreneurial traits and corporate entrepreneurship in emerging markets: an evidence from Egypt. *Journal of Entrepreneurship in Emerging Economies*. 2020 Jul 17.
53. Chen PC, Chan WC, Hung SW, Lin DZ. How entrepreneurs recognise entrepreneurial opportunity and its gaps: a cognitive theory perspective. *Technology Analysis & Strategic Management*. 2020 Feb 1;32(2):223-38.
54. Acharya SK, Biswas A, Mondal S, Chakraborty A. The Yield Behavior of Tuberose (*Polygonatum tuberosum*): The Socioecological and Entrepreneurial

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- Interpretation. *Journal of Community Mobilization and Sustainable Development*. 2019;14(1):179-82.
55. Yiu DW, Lau CM. Corporate entrepreneurship as resource capital configuration in emerging market firms. *Entrepreneurship Theory and practice*. 2008 Jan;32(1):37-57.
 56. Wales W, Gupta VK, Marino L, Shirokova G. Entrepreneurial orientation: International, global and cross-cultural research. *International Small Business Journal*. 2019 Mar;37(2):95-104.
 57. Steyn R, De Bruin GP. The structural validity and measurement invariance across gender of the Brief Corporate Entrepreneurship Assessment Instrument. *South African Journal of Economic and Management Sciences*. 2018;21(1):1-8.
 58. Hasan KK. The relationship between intellectual capital and organizational trust and its impact on achieving the requirements of entrepreneurship strategy (The case of Korek Telecom Company, Iraq). *International Journal of Multicultural and Multireligious Understanding*. 2021 Feb 2;8(2):130-46.
 59. Alosani MS, Al-Dhaafri HS, Abdulla AA. Investigating the role of HRM practices on service innovation: empirical evidence from UAE government agencies. *Management Research Review*. 2020 Jun 29.
 60. Matookchund NG, Steyn R. Performance appraisal as an antecedent to innovation: An analysis of its importance relative to other human resource practices. *SA Journal of Human Resource Management*. 2019 Oct 29;17:11.
 61. Brace N, Snelgar R, Kemp R. *SPSS for psychologists*. Macmillan International Higher Education; 2012 Jul 19.
 62. Karatepe AG, Akkoc Y, Akar S, Kirazli Y, Akkoc N. The Turkish versions of the bath ankylosing spondylitis and dougados functional indices: reliability and validity. *Rheumatology international*. 2005 Oct 1;25(8):612-8.
 63. Hornsby JS, Kuratko DF, Zahra SA. Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of business Venturing*. 2002 May 1;17(3):253-73.
 64. Nunnally JC, Bernstein IH. *Psychometric theory*.
 65. Kline RB. *Principles and practice of structural equation modelling*. New York. NY Guilford Press. Knight, T., Davison, TE, McCabe, M. P, & Mellor, D. (2011). Environmental mastery and depression in older adults in residential care. *Ageing and Society*. 2005;3:1.
 66. Anderson JC, Gerbing DW. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*. 1988 May;103(3):411.
 67. Bollen KA. A new incremental fit index for general structural equation models. *Sociological methods & research*. 1989 Feb;17(3):303-16.
 68. Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
 69. Bagozzi RP. Evaluating structural equation models with unobservable variables and measurement error: a comment.