

Presenting an evaluation model of human resource management's effect on corporate entrepreneurship

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Abstract: Today, study of influential factors in human resources management and its role in the development of corporate entrepreneurship (hereafter acronym as CE) can set new strategies for businesses. The main objective of this study is to shed light on CE and to develop a theoretical framework relating human resources management in the educational institutions. In terms of objective, this study is considered as an empirical one, and the research methodology is descriptive-correlative type. In the present research data collection has been done through a questionnaire. The population includes 185 senior, middle, and operational managers working in technical and vocational education and its affiliated educational centers in the public and private sectors in Iran. Among those people, 125 persons were selected based on stratified random sampling method. Furthermore, structural equation modeling (SEM) was used for data analysis. The findings of the study show that promotion of skill and knowledge levels of people (e.g., empowering and administrative), as an operational strategy in the development of human resource, increases the demand for innovation and enhances employees' creativity in the form of corporate entrepreneurship. In addition results show that organizational culture moderates the relationship between human resource management and corporate entrepreneurship.

Keywords: *Corporate Entrepreneurship, Empowering, Administrative Factors, Motivational Factors, Human Resource Management, Organizational Culture.*

Introduction

In recent years, increasing interest is given to human resource management. By the end of modernization, today's communities witness an evolved, information-oriented world. By formation of knowledge-based organizations and application of highly skilled workforces, human resource management, per se, has turned into a new challenge in the field of strategic management. Currently, with the expansion of literature in the area of strategic development, it is taken as the most important factor in the growth and development of every organization. Knowledge-based organizations, such as Professional Service Firms (PSFs), automatically tend to hire highly skilled and knowledgeable individuals. Those firms produce, distribute, and use knowledge and information as their competitive advantage. They look at their human resource as the main factor and driver of the corporate entrepreneurship (Sow et al., 2002). Knowledge-based institutions require High Performance Work Systems (HPWSs) that are able to produce plenty of competitive advantages, economically and statistically (Huselid et al., 1998; Combs et al., 2006).

The previous studies acknowledge the fact that the company's performance in handling human resource is important in following regards (Becker & Huselid, 1998):

- A) Employment and workforce selection systems in compliance with the firm's approved competitive strategy.
- B) Reward systems that are reflecting successful implementation of the strategy in evaluation of the performance and compensation for the damage caused by employees' negligence.
- C) Training and developing performance management systems strategy, in compliance with organization's objectives.

Yet, despite considerable progress in human resource management concepts, some significant challenges have remained unanswered. In addition, application of efficient workforce not only results in creation of new issues in the field of human resource management but also human resource strategic management should provide solutions. Meanwhile, finding out to what extent giving attention to the elements of human resource strategic management can promote motivation of employees of knowledge-based institutions for developing corporate entrepreneurship can contribute to a conceptual model in this regard. A model upon which one can analyze the correlation between effectiveness of investment in human resource and its results with respect to corporate entrepreneurship. In addition, by means of this model one can evaluate the effect of employees' level of motivation and expertise on their productivity, creativity, and arbitrary efforts in the process of corporate entrepreneurship (Scott et al., 2003).

Literature Review

Several studies have been done in the field of human resource management and corporate entrepreneurship, based on different perspectives. Trus et al. (1994) maintain that human resource management refers to connection of human resource management with long and short-term goals to improve the performance of an organization and create organizational culture; thereby creativity and flexibility can be strengthened. In another study, Wrights & McMahan (1992) introduces human resource management as the application of human resource in an organized way to perform those purposive affairs that enable the organization to achieve its ultimate goals. With respect to strategic and stable administration, A'rabi (2002) considers human resource management as the most valuable property of a company, i.e. the employees who individually work together and help the company in achieving its goals. Human resource management can be attributed to the activities that are affecting people's behavior and stimulating them to design and implement strategic needs (Schuler, 1992).

According to Anderson (2013), in parallel to classic definitions, conceptual classification can help us in proposing other definitions for knowledge management-based human capital in theoretical contexts. For example, a theory which takes into consideration the human capital as a predefined potential in an extensive range of conditions for producing tangible and intangible properties (Sveiby, 2007). Based on this, human resource management can be taken as a method for mobilization of corporate entrepreneurship towards achieving the firm's perspective. According to this definition, human resource management allows the application of strategic renewals to achieve the firm's objectives (Schuler et al., 2015; Flambhotz et al., 2011).

In contrast, corporate entrepreneurship is a process, in which product, service, or innovative methods are established by creating an entrepreneurial culture in an organization (Fry, 2013). Corporate entrepreneurship can be defined as running a new business in developing corporates in form of internal innovation, joint measures or ownership, modernization of

products and processes, and management of innovations (Anderson (2013). Entrepreneurial organizations are seeking to answer following questions:

- 1) What are opportunity creating resources?
- 2) What are the processes of opportunity exploration, evaluation, and exploitation in an organization?
- 3) By who and how are the processes of opportunity exploration, evaluation, and exploitation implemented?

In recent years, strategic human resource management has deeply bonded with corporate entrepreneurship (Ziyae et al., 2015). It can be said that proper application of strategic management elements results in producing required motivation in employees for creating new ideas and manufacturing novel products and services in order to achieve the vision of leading organizations. In contrast, lack of proper response to mental and economic needs of employees encourages them to defect the organization, leading to establishment of individual or corporative entrepreneurship (Barringer & Bluedorn, 1999).

It should be noted that some businesses are more valuable (strategic) than others, and their human workforces possess a high level of expertise and skill. Therefore, establishment of an integrated management system would be the only response to their need in the path of corporate entrepreneurship development. It means that more investment is required for setting strategic rules in the field of human resources. Knowledge-based organizations should make structured decisions with respect to appropriate use of skills and capabilities of their employees to be able to meet their enthusiasm for corporate entrepreneurship, properly (Line, 2012).

So far, a comprehensive theoretical model of corporate entrepreneurship with emphasis on the role of human resource management has been neglected. That this study intends to fill the aforementioned gap in the entrepreneurship literature.

The role of intellectual capitals in the development of corporate entrepreneurship

Today, employees are taken as the intellectual capitals of every organization and an important competitive factor in corporate entrepreneurship. In addition to physical capitals such as machineries and so like, today's organizations aim to develop their intellectual capitals (Alvesson, 2015; Starbuck, 2012).

Knowledge-based organizations possess several distinctive properties, with respect to human workforce. This difference is obvious in their functionality, since using specialized, intelligent methods, which are designed on the basis of individuals' inherent strengths, are superior to physical workforce and traditional way of business (Karreman et al., 2002). For example, there are employees in the knowledge-based companies who solve complicated issues by incorporating high level of creativity and innovations into the processes (Sveiby, 1997). Furthermore, knowledge-based companies provide incredible solutions to the problems of their customers by using the knowledge of their employees (Ditillo, 2004).

Today, the concept of intellectual capital has been investigated extensively and is taken as an important part of an organization's capital in the field of human resources. Some experts refer to intellectual capitals as a multidimensional concept that includes human capital, structural capital, and relational capital (Okoye et al., 2015). Human capital can be considered as a predefined capacity in a wide range of conditions for generation of tangible and intangible properties. Structural capital can be referred to as patents, concepts, models, mechanization, and administrative systems developed in a firm. Relational capital can be evaluated based on the extent of relationship between the firm, customers, and suppliers (Sveiby, 1997).

The Dimensions of Human Resource Management

In this study, the key activities of strategic human resource management are used as independent variables and the elements of corporate entrepreneurship are regarded as dependent variables for preparation of questionnaires and analysis of the obtained data. Independence variables are: (Armstrong, 2015)

1) Structure of the organization

Managerial structure of knowledge-based organizations is organic. It is a planar structure comprised of multiple informal grids. Leading organizations are designed in a way to be compatible with key uncontrolled resources, be flexible, and provide an environment where employees are free to explore and create opportunity. An entrepreneur organization creates a working environment full of ideas, while a bureaucratic organization is just concerned with corporate resources related ideas. Sometimes, the latter may even not consider any idea. Entrepreneurial organizations focus on employees' opportunistic behaviors and consider their ideas with respect to the discovered or created opportunities, seeking the ways for development and growth for long-term economic survivor (Stephen et al., 2008).

2) Development of human resources

Every organization needs to recruit manpower to grow; therefore, the organization's management must do the necessary planning. The process of recruitment of fresh workforce should be in parallel with development of entrepreneurial activities (Stephen et al., 2008).. It seems that the best time for hiring those who have entrepreneurial characteristics is at the early recruitment because at that time the chance for making good choice is higher. Undertaking personality tests in addition to considering specialty, skills, and career history of applicants can lead to recruitment of those who are able to implement corporate entrepreneurship in line with strategic objectives of the organization (Armstrong, 2015).

3) Performance management

Performance management is an integrated, strategic method begins with planning and setting goals for the organization and employees. After evaluating them by controlling performance indices, it comes up with recommendations for improvement of processes and employees' performance. Perpetuation of this cycle would bring lasting success for an organization to achieve its goals, including corporate entrepreneurship (Ziyae et al., 2015).

4) Controlling and supervising

The number of rules and regulations and the amount of direct supervising that managers apply in employee's behavior (Ditillo, 2004).

5) Training and empowering

Training is a process based on which a relatively permanent change is occurring at employees' potentiality level in order to improve organization's performance. Based on this, training includes promotion of skill, knowledge, attitude, or behavior of the organization's employees. It is a bridge between employees and their job, through which they not only optimally perform their tasks but also are willing to innovate and create new opportunities in order to improve the product or start a new process. Training general entrepreneurial skills on the one hand and holding specialized and professional courses on the other hand contribute to organization's goals achievement. Training can occurs on individual or organizational learning basis (Ziyae et al., 2014).

6) Reward management

Designing a reward system for corporate entrepreneurs requires senior manager to be fully aware of employees' mental and financial needs. Corporate entrepreneurs are not willing to fully exchange their monthly pay with a risky reward system. In addition, a clearing reward system is not adequate for entrepreneurs, because they think it as making profit from risky projects. The reward system should be both financial and non-financial. Indeed, non-financial aspect of reward system may be more important to the corporate entrepreneurs (Etzkowitz & Zhou, 2008).

Wright et al. (2007) in their research have referred to the human resource management role, establishing breakaway enterprises with advanced labors, and penetrating entrepreneurial mindset among employees. They also examined the impact of human resource management on the level of activities of entrepreneurial firms. The findings show the positive relationship between human resource management and corporate entrepreneurship.

Elsewhere, Guerrero and Urbano (2010) in their study showed three components of corporate entrepreneurship (i.e., innovation, proactiveness, and risk-taking) are affected by human resource management strategies. Similarly, in another research Perkman et al. (2013) identified the institutional antecedents (i.e., reward, management support, and training) as the main factors effecting corporate entrepreneurship.

Literature review on corporate entrepreneurship also revealed that organizational factors (i.e., reward management, supervising, supportive culture, and organizational structure) effect on seeking for recognition and exploitation of new idea, innovative behavior, and corporate entrepreneurship directly (e.g., Etzkowitz & Zhou, 2008 and Van Looy et al., 2011).

Organizational Culture

Organizational culture refers to a system of mutual understanding which the members have about an organization. This feature can lead us to separate the organizations from together. Organizational culture can be defined as a collection of values, beliefs, assumptions and mutual norms which are governing an organization.

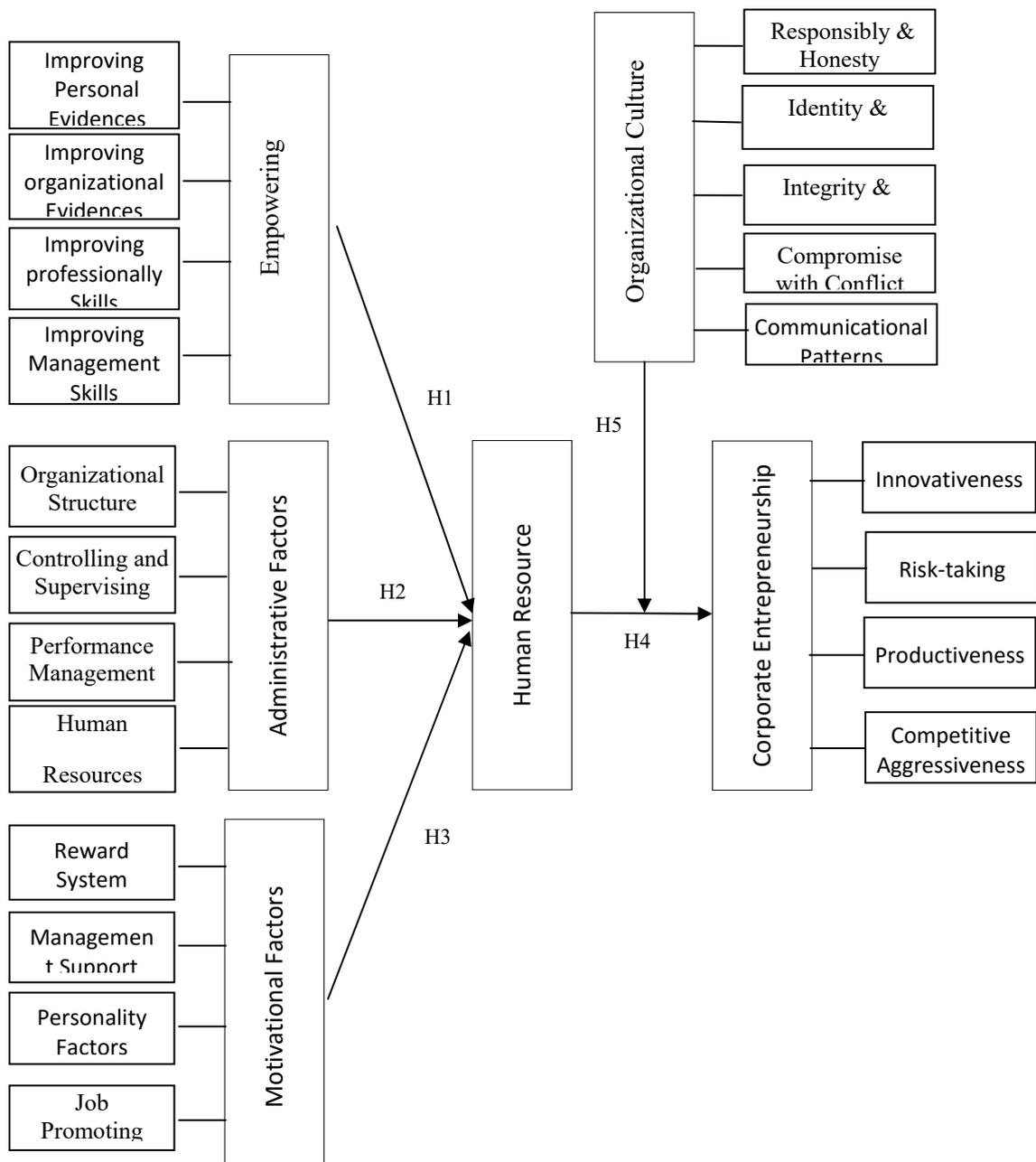
Innocent et al. (2015) propose that organizations should consider entrepreneurial culture and tendency to growth as one of the important dimensions of entrepreneurship management. Knowledge-based organizations tend to achieve rapid growth and have institutionalized their entrepreneurship management. They support innovative and creative ideas of their employees, thereby a culture, in which provision of new ideas and following them up are regarded valuable, is established. Opportunity seeking and exploitation are just the beginning. Therefore, a broad range of ideas provided by the employees is worth exploring and taking into consideration (Connolly, 1997).

Team-building is of the important points in the development of organizational culture. To identify individual innovators, managers should organize people to develop entrepreneurial concepts in teams (Ziyae et al., 2014). All of those people are not usually creators of creative and innovative ideas; rather, they may join the support staff. Anyhow, it is essential to identify those who have entrepreneurial tendencies and can work with the system. Team members can be from any part or sector in the organization. Considering the culture as a system of mutual understanding of the members toward an organization, one system is made of main features which are valuable and honored by that organization. These features are:

- 1) Responsibly and honesty: This is a criterion which evaluates the amount of attention and employees interest toward their tasks.
- 2) Identity and loyalty: the degree to which people, representing the entire organization and individuals use the organization to define themselves.

According to (Hany et al., 2011) seven key factors of organizational culture such as: having a flexible structure, having an entrepreneurial culture, continuous interaction with environment, creating a shared vision, providential strategy, paying attention to human resources (staff), and management support moderate the relationship between human resource management and corporate entrepreneurship. In another study, Chugh (2014) provided a framework for corporate entrepreneurship and suggested that organizational culture moderate the relationship between rates of company derivation activities such as: individual characteristics, organizational characteristics and corporate entrepreneurship. Based on the aforementioned discussed literature, the research conceptual model is shown in the figure 1.

Fig 1: Conceptual Model



Based on the conceptual framework of this study, the research hypotheses in Table 1 have been expressed.

Table 1. The Research Hypotheses

Index	Hypothesis
H1	There is a significant and positive relationship between empowering and human resource management.
H2	There is a significant and positive relationship between administrative factors and human resource management.
H3	There is a significant and positive relationship between motivational factors and human resource management.
H4	There is a significant and positive relationship between human resource management and corporate entrepreneurship.
H5	Organizational culture moderate the relationship between human resource management and corporate entrepreneurship.

Methodology

The purpose of this study is considered as an empirical one in terms of objective, and its research methodology is descriptive-correlative type. More specifically, structural equation modeling (SEM) was used for data analysis. In the present research data collection has been done through a questionnaire. The population includes 185 senior, middle, and operational managers working in technical and vocational education and its affiliated educational centers in the public and private sectors in Iran. Among those people, 125 persons were selected based on using Cochran formula and through stratified random sampling method (as shown as in Equation 1 below).

$$n = \frac{N \times Z \alpha^2 / 2 \times P(1 - P)}{\varepsilon^2 (N - 1) + Z \alpha^2 / 2 \times P(1 - P)} = \frac{185 \times 1.96^2 \times 0.5 \times 0.5}{0.05^2 \times (185 - 1) + 1.96^2 \times 0.5 \times 0.5} = 125 \quad eg(1)$$

In the current study, the human resource management questionnaire was drawn from the study of Becker et al., (2008). In addition, the organizational culture and corporate entrepreneurship questionnaires were drawn from the research by Van Looy et al., (2011).

The Results and Findings

The results in descriptive statistics part of the study show that 80 percent of the participants are male and 20 percent are female. In terms of age, most of the participants are in the range of 31-40. Regarding education, most participants (%60) hold the PhD. degree. Descriptive statistics for the samples are shown in Table 2.

Table 2. Descriptive statistics for the samples

Variable	Levels	Abundance	Variable	Levels	Abundance
Sex	Man	80	Experience	3 to 5 years	29
	Woman	20		5 to 10 yeas	21
				Over 10 years	50
Age	20 to 30 years	23	Education	Bachelor	25
	31 to 40 yeas	50		Master	28
	Over 41	27		Ph.D	47

The Structural Equation Modeling (SEM) approach is particularly suitable for measuring and estimating a theoretical model with linear relations between variables, which may be either observable or directly unobservable and may only be measured imperfectly (Hulland, (1999).SEM enables an explicit modeling of the measurement error for the observable variables and avoids potential bias, thus allowing constructing unobservable variables, which can be measured by indicators. The current study utilized Partial Least Square (PLS) variance-based SEM due to analyze and the epistemic view of data. First, none of the independent and dependent variables was absolutely measurable. Further, rather than aiming for producing the covariance matrix as close as possible to the theoretical model, the aim has been set as analyzing the degree of cooperative entrepreneurship. In such a situation, the variance-based PLS approach seems suitable (Hulland, 1999). The conceptual model presented in this study was developed based on the Theoretical grounds. The analysis and interpretation of data process covariance structure analysis and structural equation modeling software with SMART PLS2 software which is followed:

Measurement Model

The proposed conceptual model in the current study has been developed based on the theoretical foundations and it has been analyzed by SEM.

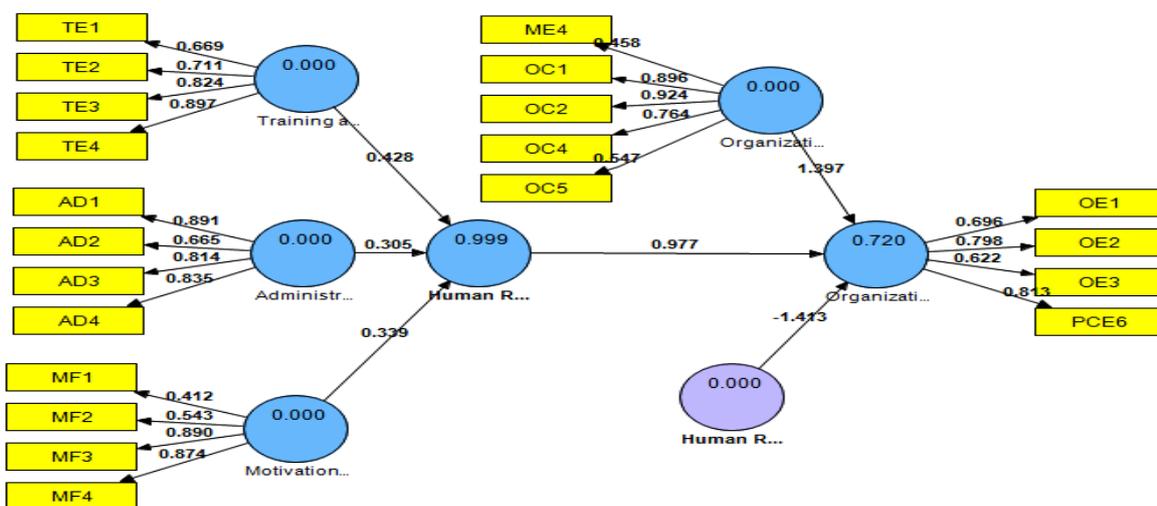
A) Assess the measurement model

1. To check the reliability of the measurement model and reliability Item evaluation have been used from three ways:

1.1. *Loads of factor*: Amount of criteria for the suitability of factor loadings coefficients is 0.4 (Hulland, 1999). In Figure 2, loading factors are represented for each of the indicators in research model. To get a higher reliability from 0.4 for the indexes, some of the questions, such as the desire for power index have been removed from the primary measurement model.

1.2. *Cronbach alpha*: is considered as classic criteria for evaluation and appropriate measures for evaluating the internal in the measurement model. This measure shows the correlation between the structure and its related indicators .Higher values of 0.7 markers would be acceptable reliability (Hulland, 1999). As can be seen in table 3 Cronbach alpha values are greater than 0.7 for model structures and models of measurement have required reliability.

Fig 2: A graph of the factor loadings and



structural factors influence

1.3. *Combine reliability (CR)*: PLS software uses more modern standard called combine reliability. The reliability of structures calculated not only as an absolute but also according to their structural correlation with each other.

If the value for CR is greater than 0.7 for each structure, it has shown of suitable reliability for measurement model (Fornell & Larcker, 1981). As it is seen in Table 3, CR structures values is above 0.7 and reliability of measure models is approved.

Table 3: AVE, Composite reliability and Cronbach's Alpha

	AVE	Composite Reliability	Cronbachs Alpha
Administrative Factors	0.841	0.880	0.815
Human Resource Management	0.709	0.922	0.905
Human Resource Management * Organizational Culture	0.867	0.992	0.991
Motivational Factors	0.605	0.789	0.624
Organizational Culture	0.649	0.851	0.777
Corporate entrepreneurship	0.642	0.824	0.715
Training and Empowering	0.710	0.860	0.785

2. The narrative validity of convergence

The second measure, which is used to measure model in PLS is a measure of the average variance extracted (AVE). Which shows the level of correlation of a structure with itself indexes. AVE value is accepted above 0.5 (Fornell & Larcker, 1981). As it shows in table 3, AVE is greater than 0.5 for all model structures and reliability of model is verified for measurements.

3. Divergent validity measure

3.1. Cross-loading method

All questions in endogenous and exogenous latent constructs, factor load shares more with its own structure compared to other structures which this suggests divergent narrative of suitable for the research model. (Henseler et al., 2009).

3.2. Method of Fornell and Larcker

As shown in Table 4, AVE root variable are greater than amount of (.5). This subject is the evidence of divergent narrative suitable for the current study variables.

Table 4: Fornell & Larcker test result

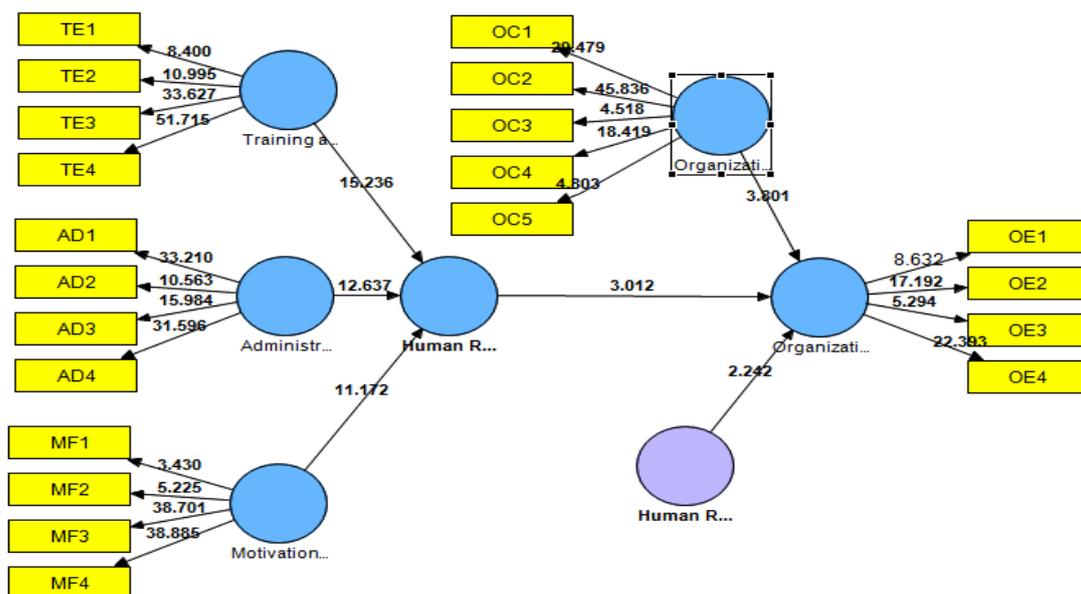
Variables	Administrative Factors	Human Resource Management	Motivational Factors	Organizational Culture	Corporate Entrepreneurship	Training And Empowering
Administrative Factors	0.917	-	-	-	-	-
Human Resource Management	0.968	0.842	-	-	-	-
Motivational Factors	0.863	0.802	0.778	-	-	-
Organizational Culture	0.654	0.760	0.680	0.806	-	-
Corporate entrepreneurship	0.584	0.733	0.714	0.714	0.801	-
Training and Empowering	0.865	0.829	0.701	0.736	0.707	0.843

Structural model validation (B)

1. Meaningful coefficients of T value:

As shown in the Figure 3 the meaningful coefficients of T value in all directions is greater than 1.96 and as a result can be confirmed in all questions being meaningful and relationships between variables with a confidence level of 0.95 Obviously, the T-value of organization culture as a moderator variables considered on the path has produced by multiple with human resource management variable.

Fig 3: Factor loadings of Model (T value)



2. Check the standardized coefficients for the direction related to hypothesis:

Positive values contained in the routes between the structure figure 2 show that causal relationships are among latent variables. As can be seen in the figure 2, values between the structural variables indicate positive impact of human resource management on the promotion of corporate entrepreneurship. Human resource management as much as 97% can have a positive impact in development of corporate entrepreneurship.

3. R squares Criteria

Higher values for R^2 from 0.33 shows that the impact of average and higher levels from 0.67 confirms the strong impact of exogenous variables on the endogenous variables (Henseler et al., 2009). With respect to the values in the table 5 average of R^2 is 0.859 for latent variables human resource management and corporate entrepreneurship, therefore it can be concluded which latent exogenous variables have a strong impact on the latent endogenous variables.

4- (Stone-Geisser criterion) (Q^2)

Stone-Geisser criterion index defines the predictive power of the research model. The values in the Table 5(Column 1-SSE/SSO) represents the amount of (Q^2) and its higher values of the basis value of 0.35.It can be concluded which the model has very strong predictive power(Stone, 1974).

Table 5: Parameter Estimates for Structural Model

Variables	R Square	Communality	Redundancy	1-SSE/SSO
Administrative Factors	-	0.649396	-	0.649416
Human Resource Management	0.999042	0.509473	0.256621	0.504302
Human Resource Management * Organizational Culture	-	0.666288	-	0.66632
Motivational Factors	-	0.505121	-	0.505336
Organizational Culture	-	0.549728	-	0.549251
Corporate entrepreneurship	0.719874	0.542339	0.251267	0.534409
Training and Empowering	-	0.60917	-	0.608929

C) General model validation

Goodness of fit testing (GOF) is the index for checking the model fitting to predict endogenous variables. Three values, 0.01, 0.25, 0.36 are identified as the weak, medium, and strong values of GOF, respectively (as shown as in Equation 2 below). Since the calculated values of GOF is greater than 0.36, it shows the proper model fitting.

$$Gof = \sqrt{\text{communalities} \times R^2} = \sqrt{0.670 \times 0.815} = 0.739 \quad eq(2)$$

Results

As a nonparametric estimation procedure (Wold, 1982), PLS provides an iterative combination of principal components analysis that relates measures to constructs and a path analysis that captures the structural model of constructs. The structural model represents the direct and indirect un-observational relationships among constructs. As already noted, reliability and validity of model was approved in measurement section of structure and the whole. Therefore, results of research are valid and they can be extended. According the PLS analyzing we can approve the hypothesis has listed in Table 6.

Table 6: Status of Hypothesis

Index	Relationship	T Statistics	Status
H1	Empowering -> Human Resource Management	15.236	Accept
H2	Administrative Factors -> Human Resource Management	12.636	Accept
H3	Motivational Factors -> Human Resource Management	11.172	Accept
H4	Human Resource Management -> Corporate entrepreneurship	3.045	Accept
H5	Human Resource Management * Organizational Culture -> Corporate entrepreneurship	2.241	Accept
H6	Training and Empowering -> Corporate entrepreneurship	2.958	Accept
H7	Administrative Factors -> Corporate entrepreneurship	2.970	Accept
H8	Motivational Factors -> Corporate entrepreneurship	3.045	Accept

Results and Discussion

To implement the functions of human resource management, paying attention to the vital factors and strengthening them can significantly affect the success of corporate entrepreneurship. In this regard, the driver factors were extracted according to the corporate entrepreneurship literature and hypotheses were developed based on the previous studies.

The results show that human resource management positively and significantly effect on corporate entrepreneurship. The greatest influence is related to establishment of training and empowering system (0.428). Research hypotheses are confirmed at confidence level of 95%. Therefore, it can be established that with improvement of human resource management measures, corporate entrepreneurship can be empowered in the organization. Managers have to come to the conclusion that human resource management goes beyond employee handling and human resource planning. They should plan human resource related activities in a way that they contribute to the achievement in organization's strategic goals. The result of current study are in line with the findings of Wright et al. (2007), Guerrero and Urbano (2010), Etzkowitz & Zhou (2008), and Van Looy et al., (2011).

The findings also shows that, if the empowering, administrative, and motivational factors be promoted and be able to respond to changes in their environment, it can be a great help to enhance human resource management. This structure avoids the reworking, disagreement,

attrition, and dissipation of organizational labors. This is what is happening which allows people to work closely and innovatively.

The results of study also show the moderating effect of organizational culture in the relationship between human resource management and corporate entrepreneurship. This factor perhaps is the most important factor to promote proactive, aggressive, and innovative behaviors inside organizations. The finding of the current research is in the line with the study of Hany et al., (2011) and Chugh (2014).

Conclusion

The theoretical framework of the current study offers a different way forward for practitioners in thinking about those factors that may be critical for success of corporate entrepreneurship. Practitioners, in general can use the following recommendations:

1. Supporting developmental strategies of corporate entrepreneurship and incorporating human resource qualitative and quantitative development plans into the mainstream of the organization's strategic management policy in order to develop corporate entrepreneurship activities.
2. Supporting cultural change plans to develop corporate entrepreneurship, in that the employees come to believe that without their cooperation, it is not possible to exploit opportunities in order to achieve the organization's goals.
3. Operating management policies in a way that performing corporate entrepreneurial activities is considered as competitive advantage, thereby the building blocks of employees' growth are provided. In other words, that employees' entrepreneurial activities contribute to value-added in the organization is ensured.
4. Implementing organizational development and employees training strategies to drive learning process in order to develop corporate entrepreneurship, as well as designing, executing, and managing of systems to ensure accessibility to the experiences required by corporate entrepreneurs through holding training courses.
5. Providing career promotion opportunity for talented employees to encourage them in entrepreneurial activities in the organization.
6. Designing, executing, and managing performance reward systems, which encourage the employees to cooperate individually and in group to implement entrepreneurial plans.
7. Paying attention to occupational models and motivations, and employees' loyalty in a way that lays the ground for their positive cooperation in implementation of entrepreneurial plans.
8. Recruiting and training employees with a proper combination of specific technical knowledge and extensive skills with entrepreneurial characteristics to meet changing needs of the organization.
9. Ensuring compliance with regulations with respect to those employees whose dismissal letter, for any reason, has been issued. Especially, regarding the employees who defect the organization for entrepreneurial activities. It is worth noting to consider them as future partners.
10. Paying attention to strengths and weaknesses of the organization, and future threats and opportunities in order to drive entrepreneurial activities to achieve the organization's strategic goals.

It is worth mentioning that in the developing and competitive condition, human resource management is required to have a pervasive and strategic perspective to be able to produce competitive advantage and value-added. Managers have to be aware that for paving the way of entrepreneurial activities, the organization's strategic human resource development should be always taken into consideration as a fundamental and dynamic factor.

Next scientific researches can study moderating role of other variables such as entrepreneurial mindset and entrepreneurial spirit as the moderator variables in the relation between human resource management and corporate entrepreneurship. Alternatively, other driving variables that along with human resource management impact on the promotion of corporate entrepreneurship should be identified and their role and models should be examined. Another avenue for further research is comparative studies with other countries in the process of creating corporate entrepreneurship. Next researches can be down on gap analysis and training model differences.

References

- Alvesson, M. (2015). *Management of Knowledge-Intensive Companies*. Berlin/New York: de Gruyter.
- Chugh, H. (2004). *New Academic Venture Development: exploring the influence of the technology transfer office on university spinouts*. Working paper, Tanaka Business School, Imperial College London.
- Anderson, C. A., & Huesmann, L. R. (2013). *Human aggression: A social-cognitive view*. London: Sage Publications.
- Barringer, b.r., Bluedorn, allen. (1999). The relationship between corporate entrepreneurship and strategic management. *Strategic management journal*, vol.20, pp.421-444.
- Becker, B. E. & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and managerial implications. *Research in Personnel and Human Resource management*, 16(05), pp. 53-101.
- Becker, B. E., & Huselid, M. A. (2008). Strategic human resources management: Where do we go from here? *Journal of Management*, 6(7), pp. 898-925.
- Combs, J. G., Ketchen, D. J., Jr., Hall, A. T., & Liu, Y. (2006). Do high performance work practices matter? A meta-analysis of their effects on organizational performance. *Journal of Personnel Psychology*, [11\(09\)](#), pp. 501–528.
- Connolly, Thomas R. (1997). Transforming Human Resources. *Management Review*, 17(06), pp.18-50.
- Ditillo, A. (2004). Dealing with uncertainty in knowledge-intensive firms: the role of management control systems as knowledge integration mechanisms, *Accounting, Organizations and Society*, 29(08), pp.401-421.
- Etzkowitz, H. (2008). The norms of entrepreneurial science: cognitive effects of the new university–industry linkages. *Research Policy*, 27(8), pp: 823-833.
- Flamholtz, E. (2011). *Human Resource Accounting and Effective Organizational Control. Theory and Practice*. Jossey Bass.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 17(11) pp.39-50.
- Fry F. (2013). *Entrepreneurship: A Planning Approach*, Englewood Cliffs NJ: Prentice- Hall.
- Guerrero, M., and D. Urbano (2010), The development of an entrepreneurial universit".*The Journal of Technology Transfer*, 12(08), pp. 1–32.
- Hanny, N; Felix, T; Margaret; J; Nelson, O. (2011). Entrepreneurship: Its relationship with market orientation and learning orientation. *Industrial Marketing Management*, 4(09), pp. 336-345.
- Henseler, j., Ringle, C. M., & Sinkovics, R. R., (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20(11), pp.277-320.
- Huselid, Mark A. Becker & Brian E. (2011). Bridging Micro and Macro Domains Workforce Differentiation and Strategic Human Resource Management. *Journal of Management*, 37(15), pp., 421-428.

- Innocent, Otache, Rosli, Mahmood (2015). Corporate Entrepreneurship and Business Performance: The Role of External Environment and Organizational Culture: A Proposed Framework. *Mediterranean Journal of Social Sciences*. 6 (04), pp.524-546.
- Karreman, D., Svenningson, S., and Alvesson, M. (2002). The return of the machine bureaucracy? Management control in the work settings of professionals, *International Studies of Management and Organization*, 32(3), pp.70-92.
- Line, Doreen (2012). Entrepreneur Business Opportunity, Jul 11, www.articlesbase.com
- Okoye, Ikechukwu Emma, Aroh, Nkechi Nympha, Egbunike, Amaechi Patric (2015). Empirical Examination of Integrated Component of Intellectual Capital on Financial Performance: Study of Select Service and Non-Service Firms in Nigeria. *Social and basic research review*, 3(9), pp.299-315.
- Schuler, R. S. (2015). Strategic human resource management: Linking people with the needs of the businesses, *organizational dynamics*. 21(1), pp.18-32.
- Scott, Shane, Edwin, A. Locke, Christopher, J. (2003). Collins Entrepreneurial motivation, Elsevier Science Inc. pp.15-18.
- Starbuck, W. H. (1992). Learning by knowledge intensive firms, *Journal of Management Studies*, 29 (6), 713-740.
- Stephen T.T. Teo, Bhavini Lakhani, David Brown & Teemu Malmi (2008). Strategic human resource management and knowledge workers: A case study of professional service firms. *Management Research News*, 31(06), pp.683 – 696.
- Stone, M. (1974). *Cross-validatory choice and assessment of statistical predictions*, J. Roy. Statist.
- Sveiby K.E. (2007). The Intangible Assets Monitor, *Journal of Human Resource Costing & Accounting*, 12 (01), pp.14-34.
- [Sveiby K.E. \(1997\). *The new organizational wealth: Managing and measuring knowledge-based assets*. Berrett-Koehler Publishers.](#)
- Perkmann, M., Tartari, V., McKelvey, M., Erkko Autio, E., Brostrom, A., Pablo D'Este, P., (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Journal of Research Policy*, 42, pp. 423– 442.
- Truss, C. and Gratton, L. (1994). Strategic human resource management: a conceptual approach. *The International Journal of Human Resource Management*, 5(3), pp.663-686.
- Van Looy, B., Landoni, P., Callaert, J., van Pottelsberghe, B., Sapsalis, E., & Debackere, K. (2011). Entrepreneurial effectiveness of European universities: An empirical assessment of antecedents and trade-offs. *Research Policy*, 40(4), pp.553-564.
- Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, 18(2), 295.
- Wright, M; Clarysse, B; Mustar, P; Lockett A. (2007). *Academic Entrepreneurship in Europe*. Edward Elgar publishing.
- Ziyae, B., Mobaraki, M.H, Saediyan, M., (2015), "The Effect of Psychological Capital on Innovation in Information Technolog. *Journal of Global Entrepreneurship Research*, 5(08), pp.9-24.
- Ziyae, B., Mobaraki, M.H, (2014), The Deployment and Internationalization Speed of E-Business in the Digital Entrepreneurship Era. *Journal of Global Entrepreneurship Research*, 5(02), pp.23-45.