High-Performance Human Resource Practices and Firm Performance: Mediating Effect of Corporate Entrepreneurship

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Abstract

Corporate entrepreneurship (CE) positively affects growth and profitability of organizations by providing competitive advantage over innovation driven technological transformations and intense global competition. CE activities have an elevator role on company performance via adoption of a change-oriented structure and development of new products, processes and services. High performance human resource practices (HPHRPs) help to boost both intra-firm level entrepreneurial behavior, and also organizational outcomes. When combined with the influential effect of corporate entrepreneurship activities, HPHRPs support achievement of better organizational performance. In this study, a selected group of HPHRPs was assessed for their possible direct and indirect effects on firm performance. Moreover, the possible mediation effect of CE activities in this relationship was examined. To test the hypotheses of the study, the data were gathered from a total of 199 manufacturing and service sector companies operating in Turkish business environment. As a result of the structural equation modeling analysis conducted by AMOS, the mediation effect of CE activities between HPHRPs and firm performance was validated within the context of the current study. In addition, the results indicated a varying relationship between different HPHRPs and CE activities. Explicitly, training, clear job description, participation opportunities, employer's employment commitment, reward and performance evaluation practices were found to have distinctive effects on innovation, new business venturing and self renewal activities, which act as mediating variables between the selected HPHRPs and firm performance.

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In today's global economic context, companies deal mostly with two major challenges. First, companies need to adjust to the changes in ever-changing and growing markets to keep pace...
with fast and instant technological challenges, and game-changer competitors. Secondly, companies need to adopt for the required changes in their intra-company systems, including revision of their internal structures and processes, otherwise they may face with slow decision making and inability to adjust to the new market conditions (Miller & Friesen, 1982). In this respect, enterprises with relatively more rigid structures may require to show even more attention for demonstrating an innovative and proactive approach in order to survive, enhance profitability and grow in such an intense competitive environment. Entrepreneurship is not only defined as the development of a new product, service and a new production method; but also as the discovery of a new market opportunity, redefinition and restructuring of an industry (Agca & Kandermir, 2008; Fis & Wasti, 2009). Therefore, intra-company entrepreneurship can be utilized as a within company system for facilitating strategic renovation and organizational change, increasing competitive advantage, enhancing organizational growth, and generating extra value for customers by bringing out novel products. Intra-company driven micro level changes also facilitate macro level changes. According to Schumpeter (1934), change processes start and spread from intra-company structures and by that entrepreneurship becomes a tool for creating transformation within whole society.

Corporate entrepreneurship (CE) approach offers an environment that supports businesses to improve their performance by creating a dynamic business approach based on innovation that can bring new competitive areas, transform opportunities against growing market demand. Since 1990s, by the researchers interested in entrepreneurship concept, a considerable number of studies have been conducted to determine the relationship between companies' corporate entrepreneurship propensity and their business performance. A significant number of these studies have found that CE practices increase business performance (Covin & Slevin, 1989; Lumpkin & Dess, 1996; Zahra & Covin, 1995). In addition, CE was found as an important factor for organizational success which then has macro effect on economic development and profitableness for whole economic system (e.g., Wennekers & Thurik, 1999).

Human resources management (HRM) practices have found to be effective in creation of entrepreneurial context (Holt, Rutherford, & Clohessy, 2007). High-performance human resource practices (HPHRPs) increase employees' motivation to take initiative and involve in decision-making processes regarding their jobs, and thus facilitate CE (Appelbaum & Kamal, 2000). As a result of the studies carried out in recent years, it has been shown that there is a significant relationship between human resources management practices and CE (Hayton, 2005; Hornsby, Kuratko, Shepherd, & Bott, 2009; Kaya, 2006; Zhang, Wan, & Jia, 2008). However, only a few number of studies investigated the possible effect of specific human resource practices on company performance via CE (Hayton, 2005; Kaya, 2006).

The purpose of the current study is to examine the relationship between HPHRPs and firm performance with a specific emphasis on identifying the particular effects of different HPHRP practices. With this aim, some selected HPHRPs; namely, personnel selection, training, job mobility, employer’s job security commitment, clear job description, performance evaluation, reward and participation to decision making processes are examined for their effect in the relationship. Moreover, we aim to explore the roles of particular CE practices in the relationship between HPHRPs and firm performance. Accordingly, the current study has some specific contributions both in academic and practical context. Firstly, this study integrates a
corporate entrepreneurship point of view in exploring the link between human resource practices and company performance. Secondly, within the context of CE and firm performance perspectives, it aims to identify the specific effects of various elements of HPHRPs. In this respect, the outcomes of the study contribute both to CE and HPHRPs literature. Besides, the current study provides a practical guideline for practitioners in their attempts for increasing their firm performance levels through the stimulation of CE activities by investing in HPHRPs.

The Literature Review
Entrepreneurship and its value generation effect on global economy have been recognized for a long period of time. The contemporary entrepreneurship research started with the economist Joseph Schumpeter almost a century ago. Schumpeter defined entrepreneurs as those who produce new products or similar products with new methods, and thus they are indeed the ones who promote economic activity (Schumpeter, 1934). Schumpeter's distinctive contribution to the entrepreneurship literature comes from his emphasis on the word “new”. According to his understanding, just new people can produce totally new combinations with completely old tools. Destruction of old products or old production methods via new product offerings can increase customer interest, and this would then facilitate economic value generation. Schumpeter described entrepreneurship as a ‘creative destruction’ process (Schumpeter, 1947).

While some researchers study solely the activities of individual as an entrepreneur, most of the researchers in the area focus more on organizational perspective of entrepreneurship (Miller, 1983; Miller & Friesen, 1982). According to organizational perspective, entrepreneurship needs to be facilitated by organizations by allocating more resources to their entrepreneurial attempts or practices. Firms' efforts for enhancing their corporate innovation activities would bring about entrepreneur-driven economic practices which would initiate economic stimulation and higher income levels for whole society.

The underlying rationale for the interest in examining entrepreneurship activities both at firm-level and society-level depends mostly on an expectation that entrepreneurship could affect economy via its constructive effect on productivity, development of new industry and new processes, as well as strengthening competitive advantages (Wennekers & Thurik, 1999). Accordingly, research on entrepreneurship as an organization level phenomenon has been accepted and thus encouraged by both academic and business environments.

Corporate Entrepreneurship
While the consequence of entrepreneurship is always at interest, firm level activities that encourage entrepreneurship of a company take also considerable attention of researchers and practitioners of the field. In-house activities and processes that initiate within company level entrepreneurship of a firm which definitely intended for entrepreneurship are referred as 'corporate entrepreneurship' (CE) (Barringer & Bluedorn 1999). CE is defined as "the orientation of a firm to become proactive, innovative and risk taking" (Covin & Slevin, 1991).

With a subsequent study by Zahra and Covin (1995), business venturing and organizational renewal were presented as additional dimensions of CE other than proactiveness, innovativeness and risk taking. According to Zahra and Covin (1995), CE is a set of global practices which occur by discovering and following new opportunities via new business
models, innovation or creating new businesses. Such kind of innovation enables companies to obtain sustainable competitive advantage, pursue new business opportunities, achieve higher growth while generating wealth for whole society and creating new employment opportunities for people (Bazhal, 2016). That is why, CE requires companies to generate and operate new resources of knowledge, and thus facilitate new business opportunities (Hayton, 2005). The significance of CE for companies, economies and societies necessitates conducting more research on entrepreneurship concept together with methods for its execution.

As part of continuing endeavor for further exploration of entrepreneurship, Antoncic and Hisrich (2001) pointed to 'intrapreneurship' concept that is used as a similar notion with CE. Antoncic and Hisrich (2001) stated various definitions of intrapreneurship with pointing to its significant effects. Some of the definitions of intrapreneurship include; "a process in which individuals within an existing organization chase opportunities independently of the resources they control", “developing new jobs and giving up old habits", "entrepreneurial thought and spirit within the organization" and "creation of new organizations or encouraging activities for renewal and innovation activities in the organization".

In line with the findings of previous research, the level of CE aptitude in an organization is usually described by five dimensions; innovativeness, risk taking, proactiveness, (Covin and Slevin, 1991), new business venturing (Zahra & Covin, 1995) and self-renewal (Zahra & Covin, 1995). Innovativeness is defined as new product development, new process development, product improvements and new production techniques, giving rise to product and/or service innovations. The critical point of innovation is its making a change in currently available activities or products. Risk taking is conceptualized as an organization’s willingness to pursue new risky opportunities although such an attempt might cause to lose its competitive position or having a significant performance decline. Entrepreneurial tendency of firms is often measured with their risk taking propensity to get massive amounts of debt or risky behaviors like allocating tremendous resources in order to obtain high returns via market opportunities. Proactiveness means both the anticipation of changes through continuous search for market opportunities and also acting in line with the expected changes by experimenting potential responses. New business venturing includes practices that enable creating new businesses within existing organizational structure or on the outside of current organization spin off. Internally new business creation is defined as developing new markets or changing and developing company’s products or services (Guth & Ginsberg, 1990; Kuratko, Hornsby, & Bishop, 2005). Self-renewal is defined as the transformation of organizations through the renewal of the key ideas by which organizations are built in (Guth & Ginsberg, 1990). Self-renewal primarily indicates strategic repositioning of a company via redevelopment of business concept, reconstruction of organization, and introduction of system-wide changes for innovation (Zahra & Covin, 1995). While new business venturing leads to creation of new businesses, self-renewal initiates change in the existing relationships within or between organizations.

**Firm Performance**
The sustainability of competitive position is a vital priority for today's businesses. For achieving and sustaining competitive advantage, companies need to be innovative, flexible,
efficient, and effective in their operations and achieve high performance. For that, competitive positioning of companies requires having the right professional management, skilled workforce, and up to date technology. In general, performance is defined as a notion used for quantitatively or qualitatively determining what is achieved as a result of a purposeful and planned activity.

Initially firm performance was measured solely by financial indicators. Performance of a business is usually defined as the output obtained over a certain period of time, or the result of work within a process; and the end result shows the degree of achievement in comparison to the targeted business objectives. As time, non-financial measures including customer satisfaction, employee engagement, quality of management, etc. have become a performance indicator that complement financial indicators for firm performance. Similarly, CE has also become one of the key factors that businesses need to pay attention after its significant role in corporate growth, profitability and thus overall firm performance was depicted (Pinchot, 1985).

According to the findings of previous research, there is a positive relationship between corporate entrepreneurship and economic improvement (e.g., Wennekers & Thurik, 1999). Development of new products or entrance to new markets are the results of entrepreneurship, and these are the ways that companies could achieve competitive advantage that directly affect company performance (Covin & Slevin, 1989; Lumpkin & Dess, 1996; Zahra & Covin, 1995). The findings of previous research confirmed the positive relationship between firm's profitability and CE activities (Bazhal, 2016). Especially firm's growth and profitability are found as important outcomes of corporate entrepreneurship (Alpkan, Ergun, Bulut, & Yilmaz, 2005).

**High-Performance Human Resource Practices**

High-performance human resource practices (HPHRPs) are a package of human resources practices that enhance employees' motivation, involvement in decision-making processes and spontaneous self-motivation (Zhang & Jia, 2010). According to Bamberger and Meshoulam (2000), an integrated measure of HPHRPs should consist of three main parts: First, people flow (i.e., selective staffing, extensive training, employee mobility, guarantee of job security); second, appraisal and rewards (i.e. performance appraisals, incentives); and third, employment relations (i.e., job design, encouragement of participation).

Previous research showed that there is a positive relationship between HPHRPs and various organizational outcomes including firm performance (Zhang & Jia, 2010). Basically, HPHRPs affect firm performance by recognizing and shaping skills, knowledge and behavior of employees in line with organizational goals (Collins & Clark, 2003). For instance, successful staff selection processes enable identifying skillful employees who could make and initiate appropriate decisions toward firm's goals and thus contribute to firm performance. Likewise, employee training and development practices increase firms' performance by increasing employee performance via developing knowledge and skills of employees. Internal mobility refers to the possibilities of upward movement within an organization and the transition of people within organization (Ngo, Lau, & Foley, 2008). Employees' internal mobility facilitates knowledge sharing within organization by which both employee and company performance increase. Job security is a kind of commitment given to employees on their employment. Some
researchers evaluate this practice as an investment in employee which promotes employees' positive attitude and behavior towards their organizations. Similarly, appropriate performance evaluation and rewarding of employees can lead to enhanced organizational performance via increasing employee motivation and performance. For instance, performance appraisals can be used by a company to discover underlying reasons for performance related problems by communicating with their workers. Incentives are both financial and non-financial rewards in exchange for employee’s work performance (Morris & Kuratko, 2002). A general objective of incentives is to change attitudes of employees and motivate them. Many studies have shown that incentives which enhance positive attitudes and motivation of employees contribute to firm’s growth and performance (Kaya, 2006). An explicit proposal of the tasks that employees have to do in their work represents their job descriptions, and these job descriptions clarify the roles that employees have to cover. Therefore, job descriptions guide employees and help to be on the right track regarding work processes and work outcomes. Providing chance to participate in organizational decision making can enable employees to feel ownership of their job and organization. In this way, employees can develop a sense of responsibility by evaluating the performance and productivity of their own work.

Previous research has shown that HPHRPs are effective in facilitation of CE within organizations (Hayton, 2005; Schuler, 1986). HPHRPs may facilitate CE in three main levels; first, human resource management (HRM) system can be utilized for selecting employees who have entrepreneurial tendency depending on their knowledge, skills, abilities. HPHRPs may help to identify and promote employees who are driven, solution oriented, team player, creative, and educated risk taker (Schuler, 1986). Second, HRM system can be seen as the reflection of the company culture (Delaney & Huselid, 1996). Company culture helps to strengthen employees to have emotional ties with their companies as well as to shape common norms of behavior within company. Third, HRM is one the most influential strategic agent for catalyzing firm level transformations (Delaney & Huselid, 1996).

HPHRPs also enhance the intensity of CE applications. For instance, as stated by Li-Yun, Aryee, and Law (2007), HPHRPs can reinforce common perceptions about a supportive organizational habitat that motivates employees to engage in voluntary behavior and contribute to organizational performance. HPHRPs may have an impact on employees' participation in innovation processes via developing employees' skills, knowledge and capabilities for innovation. Besides, employees take more responsibilities in their daily work and chase new opportunities as a result of these HPHRPs (Zhang & Jia, 2010). Organizations may promote organizational innovations by utilizing staff selection practices to obtain high-quality and experienced human capital such that these competent employees can develop novel and more competitive products (Zhang, Wan, & Jia, 2008). Moreover, adequate incentives can increase employees’ risk propensity and motivation for innovation (Huselid, 1995). Organizations employing HPHRPs consider their employees as internal entrepreneurs, and by this point of view they encourage employees to participate in decision-making and to be more proactive. In this respect, companies aiming for corporate entrepreneurship may use human resource practices to provide opportunities for employees who feel constraint by bureaucratic procedures on their work behavior (Hayton, 2005).
Previous research showed that effective HRM practices facilitate development and retention of human capital and thus contribute to firm performance (Lado & Wilson, 1994). Moreover, CE is found to be effective in boosting firm performance (Bazhal, 2016). Besides, previous studies pointed that some HRM practices such as education and incentives are effective in promoting entrepreneurial behavior and entrepreneurship (Twomey & Harris, 2000). By integrating these perspectives, the current study aims to explore how firm performance could be increased via stimulation of CE activities by investing in HPHRPs.

**Theoretical Model**

Lepak and Shaw (2008) pointed that among different perspectives of strategic HRM, contingency perspective argues that HRM practices will be maximally effective only under certain situational conditions including organization’ strategy, industry and technology. Business level strategy and related organizational goals and plans have been found to exert a major impact on the design and effectiveness of various HRM systems that influence the HRM-organizational performance relationship (Jackson, Schuler, & Rivero, 1989; Youndt, Snell, Dean, & Lepak, 1996). As an example, assume that a firm sets facilitating CE as an element of its strategic goals, the management of this company should know that successful implementation of CE processes requires identifying and utilizing high skilled employees. Therefore, by a concern for promoting CE, the aim of recruitment becomes constituting a suitable human capital for enhancing entrepreneurial sight. Accordingly, during the hiring process company should pay attention to analyze candidates' attitudes and behaviors regarding creativity, teamwork and problem solving. In this example, it is important to understand how staff selection influences CE activities which affect firm performance.

By adopting a contingency perspective, in the current study, we took corporate entrepreneurship point of view in exploring the link between human resource practices and company performance and argued that positive interactions among HPHRPs and CE practices would depend on the functionality of each HPHRPs on CE dimensions. In the present study, we aim to explore the following research question: “How HRM practices affect firm performance via corporate entrepreneurship?” Besides, by taking HPHRPs as drivers for corporate entrepreneurship we also search an answer for: “Which CE activities that boost firm performance are supported by which specific HPHRPs?” Accordingly, the theoretical model of the study is depicted in Figure 1 below with main hypotheses; HPHRPs positively affect firm performance (H₁), and CE activities mediate the effects of HPHRPs on firm performance (H₂).

![Figure 1. Theoretical model](https://ssrn.com/abstract=3337660)
Method

The data were collected via survey distributed to 561 companies operating in various sectors in Turkish business environment. The sample was a convenient sample that include companies operating in service and manufacturing sectors with employees of 100 to 500 people. White-collar employees well-informed about their company performance were asked to fill in the questionnaire on behalf of their companies. With a response rate of 35%, 199 usable questionnaires were included to the analysis. 57% of the total respondents were men and 43% of them were women. Besides, 50% of the companies operates in service industry while the remaining 50% operates in manufacturing and related sectors.

The measures of the research constructs were taken from the established scales. The “back translation” process was applied to assure the equivalence of these measures in English and Turkish (Brislin, 1976). For the measurement of HPHRPs, in line with Bamberger and Meshoulam's (2000) perspective, a collection of internally consistent HRM practices including items of selective staffing (4 questions), extensive training (4 questions), internal mobility (3 questions), employer’s employment commitment /employment security (4 questions), clear job description (3 questions), results-oriented performance appraisal (3 questions), incentive reward (3 questions), and participation to decision making (4 questions), with a total of 28 items developed by Zhang et al. (2008) were used. CE was measured by Zahra's (1993) three-dimensional corporate entrepreneurship scale including 10 questions for innovation, 5 questions for new business venturing and 7 questions for self-renewal practices. Both for the measurement of HPHRPs and CE, a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree) was used. Overall, firm performance level was measured by integrating customer satisfaction, overall profitability and market growth questions. Respondents were asked to rate their companies' performance in comparison to their main competitors' performance in the market over the past 3 years. A five-point Likert scale was used ranging from (1) much worse than, to (5) very much better than (Alpkan et al., 2005).

Exploratory factor analysis (EFA) was conducted to extract the study’s constructs, and then confirmatory factor analysis (CFA) was conducted to determine whether the extracted dimensions through EFA analysis offered a good fit to the data of the study. The items with relatively low factor loadings (<0.70) and the ones with cross correlations were eliminated from the dataset. The factor loadings of the remaining items were used to depict the factor composition of each construct. Regarding HPHRPs, the items of performance appraisal and incentive rewards were loaded to the same factor, thus their items were combined to create a compound construct which named as "reward/performance appraisal". Since the items of selective staffing and internal mobility spread around at different factors without any logical association, these items were excluded from further analysis. HPHRPs came out as a collection of five HRM practices including reward/performance appraisal (3 items), extensive training (4 items), clear job description (3 items), employer’s employment commitment (2 items), and participation (3 items). Regarding CE, innovation and new business venturing items were loaded to the same factor, thus a total of eight items were combined to create a compound construct named as "innovation/new business venturing". Six items of self-renewal construct loaded into the same factor. Finally, firm performance items loaded into a single factor.
As shown in Table 1, the reliability and validity of the resulting factor compositions are acceptable since they have Cronbach's Alpha coefficients higher than .70, and Average Variance Extracted (AVE) measures over .50 (Hair, Black, Babin, & Anderson, 2010). Furthermore, CFA results indicated that the hypothesized measurement model provides a good fit with the data ($\chi^2 = 796.65$, $\chi^2/df = 1.85$, CFI = .92, TLI = .90, and RMSEA = .06), which implies that there is not any significant discrepancy among proposed and observed correlations (Byrne, 2016).

Table 1
Reliability and Validity of Measures

| Measure                      | AVE | Cronbach's Alfa(α) |
|------------------------------|-----|--------------------|
| **HPHRM**                    |     |                    |
| Extensive training           | .63 | .91                |
| Participation                | .68 | .91                |
| Clear job description        | .55 | .89                |
| Appraisal & reward           | .51 | .81                |
| Employment security          | .61 | .73                |
| **CE**                       |     |                    |
| Innovation & new business venturing | .53 | .92            |
| Self renewal                 | .52 | .90                |
| Performance                  | .60 | .81                |

**Hypotheses**

By validating the factor composition by EFA and CFA, the hypotheses are structured.

H$_{1(a)}$: Extensive training positively affects firm performance

H$_{1(b)}$: Clear job description positively affects firm performance

H$_{1(c)}$: Participation to decision making positively affects firm performance

H$_{1(d)}$: Reward/performance appraisal positively affects firm performance

H$_{1(e)}$: Employer’s employee commitment positively affects firm performance

H$_{2(a)}$: Innovation/new business venturing mediates the effects of extensive training on firm performance

H$_{2(b)}$: Self renewal mediates the effects of extensive training on firm performance

H$_{2(c)}$: Innovation/new business venturing mediates the effects of participation on firm performance

H$_{2(d)}$: Self renewal mediates the effects of participation on firm performance

H$_{2(e)}$: Innovation/new business venturing mediates the effects of clear job description on firm performance

H$_{2(f)}$: Self renewal mediates the effects of clear job description on firm performance

H$_{2(g)}$: Innovation/new business venturing mediates the effects of reward/performance appraisal on firm performance

H$_{2(h)}$: Self renewal mediates the effects of reward/performance appraisal on firm performance

H$_{2(i)}$: Innovation/new business venturing mediates the effects of employer’s employment commitment on firm performance

H$_{2(j)}$: Self renewal mediates the effects of employer’s employment commitment on firm performance
**Results**

The hypotheses of the study were tested by conducting SEM analysis in AMOS, the result of structural model analysis is exhibited in Figure 2. Since the structural model was found to have a good fit ($\chi^2 = 817.014$, $\chi^2/df = 1.86$, CFI = .92, TLI = .90, and RMSEA = .06), we proceed with the analysis of path relationships. As presented in Table 2, only $H_{1(a)}$ and $H_{1(e)}$ are supported. Then, the mediation effects are assessed by conducting bootstrapping in AMOS.

Table 2  
Results of Direct Relationships

| Hypothesized Path                                                                 | Str. Regression Weight | P-value  | Result       |
|----------------------------------------------------------------------------------|------------------------|----------|--------------|
| $H_{1(a)}$ Extensive training $\rightarrow$ firm performance                     | .25                    | .009     | Supported    |
| $H_{1(b)}$ Participation $\rightarrow$ firm performance                         | ns                     |          | Not-Supported|
| $H_{1(c)}$ Clear job description $\rightarrow$ firm performance                 | ns                     |          | Not-Supported|
| $H_{1(d)}$ Reward/performance appraisal $\rightarrow$ firm performance         | ns                     |          | Not-Supported|
| $H_{1(e)}$ Employment commitment $\rightarrow$ firm performance                 | .20                    | .009     | Supported    |

ns: non-significant

As shown in Table 3, the mediation effect of innovation/new business venturing is supported for the relationships between $H_{2(a)}$: extensive training and firm performance, $H_{2(c)}$: participation and firm performance, $H_{2(g)}$: reward/performance appraisal and firm performance, and $H_{2(i)}$: employer’s employment commitment and firm performance. As presented in Table 4, the mediation effect of self-renewal is supported for $H_{2(b)}$: extensive training and firm performance.

* $p<0.1$; ** $p<0.01$; *** $p<0.001

Figure 2. SEM analysis results
performance, $H_{2(d)}$: participation and firm performance, $H_{2(b)}$: clear job description and firm performance, and $H_{2(h)}$: reward/performance appraisal and firm performance.

**Table 3**

| Hypothesized path | Direct effect | Indirect effect | Hypothesis result |
|-------------------|---------------|----------------|-------------------|
| $H_{2(a)}$: Ext. training → Innovation/new business venturing → performance | .25** | .07* | Supported |
| $H_{2(c)}$: Participation → Innovation/new business venturing → performance | .25** | .13* | Supported |
| $H_{2(e)}$: Clear job description → Innovation/new business vent. → performance | ns | ns | Not supported |
| $H_{2(g)}$: Reward/ Perfor. App→ Innovation/new business vent. → performance | .27** | .04* | Supported |
| $H_{2(i)}$: Employment commit.→ Innovation/new business vent.→ performance | -.17* | -.03* | Supported |

*p<0.1; **p<0.01; ***p<0.001; ns: non-significant

**Table 4**

| Hypothesized path | Direct effect | Indirect effect | Hypothesis result |
|-------------------|---------------|----------------|-------------------|
| $H_{2(a)}$: Ext. training → Self-renewal → performance | .64*** | .27* | Supported |
| $H_{2(d)}$: Participation → Self-renewal → performance | .09* | .04* | Supported |
| $H_{2(g)}$: Clear job description → Self-renewal. → performance | .15* | .07* | Supported |
| $H_{2(h)}$: Reward/ Perfor. App→ Self-renewal → performance | .19** | .05* | Supported |
| $H_{2(i)}$: Employment commit.→ Self-renewal→ performance | ns | ns | Not supported |

*p<0.1; **p<0.01; ***p<0.001; ns: non-significant

**Discussion and Conclusion**

Global economy requires more entrepreneurial activities being carried out by businesses to deal with the ambiguity and fast changing competitive business environment. Corporate entrepreneurship (CE) positively affects growth and profitability of organizations by providing competitive advantage over innovation driven technological transformations and intense global competition. Besides, high-performance human resource practices (HPHRPs) help to boost both intra-firm level entrepreneurial behavior, and also organizational outcomes. When combined with the influential effect of CE activities, HPHRPs may support achievement of better organizational performance. In this study, a selected group of HPHRPs, i.e., extensive training, participation, clear job description, reward/performance appraisal, and employer’s employment commitment were assessed for their possible direct and indirect effects on firm performance. Moreover, the possible mediation effect of innovation, new business venturing and self-renewal as CE activities were examined within these relationships. Therefore, this study deliberately integrates a corporate entrepreneurship point of view in exploring the link between human resource practices and company performance.

When the results of path and mediation analyses of the study interpreted altogether, it is seen that the selected five HPHRPs; namely, extensive training, participation, clear job description,
reward/performance appraisal, and employer’s employment commitment affected firm performance via different mechanisms both with and without facilitating innovation/new business venturing and self-renewal activities.

The results revealed that the extensive training practices have both significant direct and indirect effects on firm performance. In terms of indirect effects, it is found that self-renewal activities are influenced more by extensive training practices in comparison to innovation/new business venturing activities. Extensive training practices cover comprehensive education that help to develop the skills required for better job performance. Accordingly, when employees get more training and gain more skills related to their jobs, they can be much more innovative and productive, which in turn enhance organizational performance. The most beneficial impact of extensive training practices are on self renewal activities. Given that self renewal as a CE activity, it is the strategic repositioning of an organization through the renewal of the key ideas, then the reason behind the significant impact of training on self renewal becomes obvious.

On the other hand, the results of the analysis show that participation only have an indirect effect on firm performance via innovation/new business venturing and self-renewal activities. Although participation in organizational decision processes via sharing ideas and discussing alternative choices facilitates both innovation/new business venturing and self renewal activities within organization, the impact of participation to decision making becomes much more important for innovation/new business venturing. By being given chance for their participation to organizational decisions, employees may feel a sense of involvement and ownership of the outcomes of these decisions, and thus they may be more willing to contribute to organizational performance via value generating innovative ideas and initiatives.

Regarding the effect of clear job description practices on firm performance, we found that clear job descriptions do not have a significant direct effect on firm performance. However, by providing clear job descriptions to employees, companies may facilitate self renewal activities that have an impact on firm performance. On the other hand, the results showed that the indirect effect of clear job descriptions on firm performance via innovation/new business venturing is not valid in contrast to the significant indirect effect of self renewal activities. A full list of job descriptions across an organization show all of the necessary positions with required job roles, and by using this list a company can foresee future steps for filling in the necessary positions or the positions that are no longer required for organizational purposes. In this way, clear job descriptions not only help employees to understand what is expected from them in their jobs, but also help companies to have future projections regarding their reorganization strategies.

Besides, according to the results, reward/performance appraisal practices do not have a significant direct effect but they have an indirect effect on firm performance via innovation/new business venturing and self-renewal activities. In other words, an appropriate employee performance evaluation and rewarding practice cause improvement in the innovation/new business venturing and self-renewal CE activities which then improve firm performance. The reason for this significant indirect effect of reward/performance appraisal practices on firm performance is the employees' motivational process. Potential satisfaction from the desired incentive to be conditionally given to employees by their companies may cause employees to show extra effort to get the organizational outcomes targeted by their
companies. Employees being rewarded corresponding to company goals may much more easily be motivated to act for the best interest of their companies and strive to improve company performance.

Finally, the analysis results indicate fruitful outcomes regarding the direct and indirect effects of employer’s employment commitment on firm performance. We found that employer’s employment commitment has both significant direct and indirect effects on firm performance; but these effects are in opposite directions. In terms of direct effects, it is found that employer’s employment commitment practices positively affect firm performance. By being given job security, employees may develop attachment to their companies and show effort to remain in their companies to maximize the utility of job security. Besides, in line with the social norm of reciprocity, employees may feel a psychological obligation to show extra performance in their jobs in exchange of the employment security given by their employers. On the other hand, the results showed that the indirect effect of employer’s employment commitment on firm performance via innovation/new business venturing is valid but they have a negative relationship. That is, employer’s employment commitment decreases innovation/new business venturing activities in organization. The commitment provided via retention guarantees by companies ironically might reduce employees’ motivation for contributing to the innovation and new business venturing activities in their organizations.

In terms of mediation effect of CE activities, there are important outcomes found within the context of the current study. Innovation/new business venturing mediates the effect of some HPHRPs, i.e., extensive training, participation to decision making, reward/performance appraisal; and firm performance. As another form of CE activity, self-renewal also mediates the effect of some HPHRPs; namely, extensive training, participation to decision making, clear job description and reward/performance appraisal on firm performance.

Finally, the results of the current study mainly highlight a significant important point both practically and theoretically; that is, not all HPHRPs are equally effective in facilitation of each CE activity, and sometimes the indirect effect of some of these HPHRPs may lead to negative effects on performance; such as the negative indirect effect of employer’s employment commitment on firm performance via innovation/new business venturing. Therefore, if companies would like to increase overall firm performance via employment of some HPHRPs; as a first step, they should understand how each of these HPHRPs affects firm performance and what is the underlying mechanism that makes such an investment valid.

The current study has some specific contributions; firstly, this study integrates a corporate entrepreneurship point of view in exploring the link between human resource practices and company performance. Secondly, this study highlights the specific direct and indirect effects of a selected group of HPHRPs, namely, extensive training, participation, clear job description, reward/performance appraisal, and employer’s employment commitment on firm performance. In this respect, the outcomes of the study contribute both to CE and HPHRPs literature. Besides, the current study can be used as a guideline by practitioners to foresee contingencies in joint integration of HPHRPs and CE for firm performance.

As with most of the empirical research, the current study has also limitations. Data of the current research is a potential limitation regarding the generalizability of the findings. The data collected from a single country, Turkey. Future research may focus on extending the research
in different national cultures and across different types of organizations. Besides, conducting analysis by having larger research samples may contribute for validating research outcomes. Finally, some moderating variables can be inserted into the research model to investigate whether the supported hypotheses are contingent on moderating variables.

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