

# A Research on the Relevance of Intellectual Capital and Employee Job Performance as Measured with Distinct Constructs of In-Role and Extra-Role Behaviors

Seçil Tastan<sup>1\*</sup> and Seyed Mehdi Mousavi Davoudi<sup>2</sup>

<sup>1</sup>Marmara University, Faculty of Business Administration, Department of Business Administration (Lectured in English), Sub-Department of Organizational Behavior Bahçelievler, Istanbul, Turkey; seciltastan@marmara.edu.tr

<sup>2</sup>Payam Noor University, Faculty of Management, Department of Human Resources Management, Tehran, Iran; mehdi.mousavi.hrm@gmail.com

## Abstract

This study examined the impact of intellectual capital on employee job performance behaviors, commonly assumed to be in-role and extra-role behaviors. The relationship between intellectual capital and employee job performance behaviors was tested using the Structural Equation Modeling (SEM) technique. Drawing on a survey of 129 employees working in banking sector, the results revealed that perceived intellectual capital of the organization (i.e. social, organizational, human capitals) had significant positive impact on the employees' in-role and extra-role performance behaviors. The findings demonstrated that the intellectual capital recorded path coefficient of 0.64 (t-value = 5.37) and the hypothesis of the study was supported. Based on the prior literature evidence, the concluding remarks and implications of the survey results were provided.

**Keywords:** Extra-role Performance, In-role Performance, Intellectual Capital, Job Performance, OCBs

## 1. Introduction

In his book titled "Intellectual Capital- New Richness of the Organizations", Thomas A. Stewart<sup>1</sup> has defined the intellectual capital as: "the intellectual material which can be inserted in using in order to create richness; namely, it is information, intellectual acquisition and experience"<sup>1</sup>. Bontis<sup>2</sup> contributed to the conceptualization of intellectual capital by highlighting its critical importance for the organizational performance outcomes. A long with Stewart's<sup>1</sup> and Bontis'<sup>2</sup> definitions, intellectual capital has been seen as a value that provide new resources to the organization through human-oriented approaches and that help the organization to achieve competitive superiority<sup>2,3</sup>. Pablos<sup>4</sup> and Bontis<sup>2</sup> suggested that the intellectual capital was comprised of three main components, namely human capital; structural capital and relational capital.

The subsequent studies argued that human capital could be regarded as the skills, knowledge, and abilities, employees use to accomplish their work and organizational objectives, and thus, it was suggested that intellectual capital consisted of human, social and organizational capitals<sup>5,6</sup>.

In the literature, there exists research regarding the antecedents and impacts of intellectual capital. In particular, intellectual capital has been investigated as an antecedent to employee performance due to the fact that today's organizations require more investment in the human resource than in assets. This has therefore necessitated research in this area to be compressively evaluated in order to serve light for better understanding of intellectual capital and employee performance relationship. The term "Organizational Citizenship Behavior" (OCBs) has been first coined by Bateman and Organ<sup>7</sup>, Smith, Organ and Near<sup>8</sup>, Podsakoff,

\*Author for correspondence

MacKenzie, Paine and Bachrach<sup>9</sup> by drawing on Katz's<sup>10</sup>, Katz and Kahn's<sup>11,12</sup>, and Borman and Motowidlo's<sup>13</sup> distinction between dependable in-role performance and extra-role, spontaneous behaviors. While in-role job performance refers to "activities that are related to employees' formal role requirements"<sup>13</sup>, Organ<sup>14</sup> described OCBs as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system". In the fields of Organizational Behavior and Management Sciences, interest in OCBs and related concepts, such as extra-role behavior<sup>15-18</sup> and contextual performance<sup>19-21</sup> has grown.

Past research demonstrated the antecedents and consequences of extra-role behaviors. Most of the studies have drawn attention to the employee attitudes, organizational factors, and contextual variables that might predict such performance behaviors. Furthermore, even though the dramatic growth of extra-role behaviors research into other related management domains, such as human resources management, organizational behavior, industrial relations, international business, and leadership, is solid for research in this area, thus, it has become meaningful to investigate the role of intellectual capital in predicting in-role and extra-role performance behaviors of employees. Additionally, since there has been little study on tackling the impacts of intellectual capital dimensions on employee job performance, this study intent to fill this knowledge gap by discussing these issues and examining their relationship by interpreting data that was collected under a survey. Therefore, the central aim of this research is to examine the relationship between intellectual capital (human capital, organizational capital, social capital) and employee job performance behaviors as measured in terms of in-role and extra-role (OCB) performance behaviors. More specifically this research posits that intellectual capital would positively influence employee in-role and extra-role performance behaviors.

Within the context of the above discussion, following the introduction part, the first section of the study will explore some of the definitions and conceptualizations of intellectual capital and employee performance behavior construct. This is done through literature survey and evaluation of the previous evidences. In the second part of the study the research methods and measuring instruments will be explicated. In the third part of the study the relations of intellectual capital with employee job performance of the employees in Turkey will be analyzed through Structural Equation Modeling technique.

Finally, the interpretation of the findings and concluding remarks will be provided as followed by the academic and business implications of the study.

## 2. Literature Review and Hypotheses Development

### 2.1 Concept of Employee Job Performance Behaviors

The emphasis is of employee job performance has been given on improvement, learning and development in order to achieve the overall business strategy and to create a high performance workforce<sup>22</sup>. Therefore, job performance of an employee becomes to have critical importance and value for achieving organizational goals and organizational performance results. Employee job performance is defined as a process for establishing a shared workforce understanding about what is to be achieved at an organization level. It is about aligning the organizational objectives with the employees' agreed measures, skills, competency requirements, development plans and the delivery of results<sup>23</sup>. The literature ensures that job performance is a complex, multidimensional construct that can be defined and assessed in varying ways. For all that, job performance can be defined in terms of quantifiable outcomes of work behaviors and in terms of behavioral dimensions (e.g., work related communication, decision making, attention to detail) that are less quantifiable. It can be defined solely in terms of task performance related to the activities that support the technical core of the organization and are formal part of the relevant job description but can also be defined as contextual performance related to the activities that support the social and psychological environment of the organization and its employees<sup>23</sup>..

In studying employee performance behavior, Katz<sup>10</sup> addressed three types of employee behaviors including to remain within the organizational system, to carry out the role assignments, and to engage in innovative and spontaneous activities in achieving organizational objectives which go beyond the role specification. Thus, Katz's<sup>10</sup> second and third behavioral categories were classified as in-role and extra-role behavior<sup>7</sup>; Cho<sup>24</sup>. Following Katz's<sup>10</sup> categorization of employee job behavior, Kahn<sup>25</sup> and Brown<sup>26</sup> argued that employee work behaviors should be categorized upon the employees' task-related and formal

job behaviors and the behaviors which are related with their own motivation and effort. This distinction was meant to draw a line between the types of "behaviors which are required or expected as part of performing the duties and responsibilities of the assigned role"<sup>16</sup> that is, in-role behavior, and the types of behavior that go beyond the formal contract, that is, extra-role behavior<sup>27,28</sup>. Williams and Anderson<sup>29</sup> defined in-role behaviors as behaviors including full day working and accomplishing all required assignments of the given tasks. Four basic categories such as performance evaluations, quality standards, quantity standards, and employee records of safety, absences, or illnesses were considered as the performance criteria that assess employee in-role performance<sup>30</sup>.

In fact, Katz and Kahn<sup>12,31</sup> have maintained the distinction between in-role and extra-role behaviors and along with their approach, Organ and his colleagues have provided a strong contribution to the understanding of extra-role or organizational citizenship behaviors<sup>7,32</sup>. Organ<sup>33</sup> defined OCBs as "those organizationally beneficial behaviors and gestures that can neither be enforced on the basis of formal role obligations nor elicited by contractual guarantee of recompense." With that view, Organ<sup>34</sup> clarified organizational citizenship behavior as an important component of an extensive description of employee performance. As being different from the OCBs, in-role behavior represented role requirements or activities associated with the formal and explicit job descriptions<sup>8,35,36</sup>. In a meta-analysis, Podsakoff and colleagues<sup>9</sup> indicated 30 potentially different types of extra-role behaviors (OCB), in which they classified seven basic dimensions. These dimensions involved "helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue and self-development"<sup>9</sup>. Moreover, the extra-role behaviors could be executed for better customer relations or peer groups within the organization<sup>37</sup> and it was indicated that these behaviors were not formally prescribed in the job descriptions. Therefore, such behaviors were accepted as extra-role behaviors which were performed toward the customers, co-workers and organization<sup>18</sup>. Following the preceding works related to the categorization of job performance, Rotenbery and Moberg<sup>38</sup> have indicated that the two categories of job behaviors subsequently determined employee job performance behaviors and by summarizing the available empirical evidences, they demonstrated that employee self-rated in-role

performance behaviors and supervisor-rated organizational citizenship behaviors (OCBs) were significantly two different constructs. Thus, it is seen that most studies have supported the distinction between in-role and extra-role behavior (OCBs)<sup>14,21,34,35,39,40</sup>.

Confirming the two distinct job performance constructs, Williams and Anderson<sup>29</sup> examined the associations of in-role behaviors and OCBs with employees' organizational commitment and job satisfaction. In their study, they used Smith et al.'s OCB definition<sup>8</sup> in which the in-role behaviors and OCBs were clearly differentiated and the relevant variables with employee job performance. Importantly, Barksdale and Werner (2001) applied confirmatory factor analysis to analyze the propositions related to previous in-role behaviors and OCB studies. Supporting the previous works, they reported that in-role behaviors and altruism and conscientiousness dimensions of OCB construct were empirically distinct. In addition, they found that overall performance level was explained by evaluations of in-role behavior and altruism, but not by the evaluations of conscientiousness dimension of OCB. After conducting a second-order factor analysis, it was reported that four first-order factors were loaded on a unique general performance variable and this was a consistent data which supported the suggestion of the association between OCB dimensions and employee performance<sup>41</sup>.

As further, indicating the boundary between in-role behavior and extra-role behavior, Belogolovsky and Somech<sup>28</sup> examined how different stakeholders in school (administrators, teachers, parents) described teachers' role breadth, i.e., if they conceptualize the behaviors assumed to be under OCBs or in-role behaviors. Vey and Campbell<sup>39</sup> investigated the extra-role nature of behavioral items from a measure of OCB, presented with a list of both OCB items and items reflecting in-role behaviors. In their study, altruism and civic virtue items were more frequently considered extra-role with OCB dimensions<sup>39</sup>. Chughtai<sup>42</sup> examined the effect of job involvement on in-role job performance and OCB by emphasizing the distinction between two constructs of employee job performance. Moreover, Savaş and Karakuş<sup>43</sup> have performed a research study in Turkish education organizations and clarified the in-role and extra-role behaviors of teachers.

## 2.2 Intellectual Capital

Knowledge has recently become an important factor

ured image is computed. Then, the mean value is calculated from the obtained image pixel values. The equation to calculate a mean of array elements from each channel is given as follows that provides competitive superiority for organizations and for the economy. Technology and globalization, rapid change in share values have been the three driving forces in the emergence of the knowledge economy<sup>44</sup>. As many scholars have argued, knowledge is the major asset of modern business and the key to competitiveness<sup>45–48</sup>. With that view, knowledge and knowledge resources refer to knowledge and capabilities to emphasize the action and behavioral orientation of employees and organizations for attaining the aims and goals<sup>49</sup>. Thus, in today's global economic environment, intellectual capital (IC) has been seen as an important subject for both academicians and practitioners. It is mentioned that the driver for this importance comes from various challenges of the knowledge-based environment which motivate the organizations to highly invest in IC<sup>50</sup>. Thus, IC became a major factor for an organization for achieving productivity, efficiency, and success<sup>50,51</sup>. In this respect, intellectual capital refers to the integration of each intangible knowledge resources, including individual and organizational knowledge and capabilities and which leads organizational competitive advantage<sup>48,52</sup>.

Further, the intellectual capital focuses on two main components which is individuals and organizations. Garavan and colleagues<sup>53</sup> has described the concept of human intellectual capital by emphasizing four basic attributes of flexibility and adaptability; individual competencies"; "organizational competencies" and "employability"<sup>53</sup>. Previous studies have provided the definition and classification of IC. Pulic<sup>54</sup> addressed three extensive categories of IC including human capital, structural capital, and financial capital. Over the prior literature<sup>55–57</sup>, Chen and colleagues<sup>51</sup> concluded that IC might be defined as intangible assets of knowledge within the organization which includes intellectual competences, intellectual property, and intellectual resources. Moreover, in general, Edvinsson and Malone<sup>58</sup> proposed that intellectual capital was classified into two major categories of human capital and structural capital, and structural capital could be further divided into two sub-categories of organizational capital and customer capital. Su<sup>48</sup> has indicated that human capital could be considered as the skills, knowledge, and abilities, employees use to accomplish their work and organizational objectives,

as argued by Youndt and Snell<sup>5</sup>. In addition, Youndt and colleagues<sup>6</sup> suggested that intellectual capital consisted of human, social and organizational capitals. Thus, in this respect, based upon the previous framework, it is proposed that intellectual capital comprises human, social and organizational capitals. Therefore, human intellectual capital in this study will refer to the knowledge, skills and abilities of the employees.

### 2.3 Intellectual Capital and Employee Job Performance Relationship

From the prior studies, it is seen that the human intellectual capital attributes generate or add values to positive individual and organizational outcomes. By considering resource-based perspective, Wright, McMahan and McWilliams<sup>59</sup> argued that in certain circumstances sustained competitive superiority could come from "a pool of human capital". As being a solid background for understand the importance of intellectual capital in gaining organizational and individual performance, Nahapiet and Ghoshal's<sup>60</sup> implications could be referred. They argued that social capital impacted the enhancement of intellectual capital in the organizations and the organizations having higher social capital would have an advantage within the industry and could better create intellectual capital<sup>60</sup>. Following their contributions to the body of work regarding intellectual capital and performance relationship, a number of studies have provided conceptual and empirical evidences.

In particular, there are various findings that incorporate human intellectual capital with higher employee performance and sustainable competitive advantage; higher organizational commitment and enhanced organizational employee retention<sup>23</sup>. Youndt and colleagues<sup>6</sup> demonstrated that intellectual capital had positive effects upon corporate financial performance. Seleim, Ashour, and Bontis<sup>61</sup> examined the relationship between human capital and organizational performance of software companies and found that the human capital indicators had a positive association on organizational performances. Kemboi and colleagues<sup>23</sup> performed a study to establish intellectual capital as an antecedent to employee performance among commercial banks in Kenya and their research has revealed that human capital had significantly positive effect on employee performance. Moreover, a number of research studies have confirmed



that a positive and direct relation between human capital and innovativeness exists<sup>62</sup> and that there is a positive and indirect relation<sup>63</sup>. Additionally, Santos-Rodrigues and colleagues<sup>63</sup> have concluded that intellectual capital had positive influence on the capacity for innovation of a health care public institution. Oğraş<sup>44</sup> has found that intellectual capital had positive significant impact on the financial performance of depository banks in Turkey. Besides, the previous evidence showed that the relation of human capital with employee performance was also confirmed in technology-based companies and human intellectual capital has been found to be influential on employee performance<sup>64</sup>.

This was also supported by Hsu, Lin, Lawler and Wu<sup>65</sup> who found a significant positive correlation between human intellectual capital and firm performance in the context of high performance work systems. Moreover, another research study examined the intellectual capital and its impact on corporate performance of the selected financial corporations<sup>66</sup>. With that study, Rehman and colleagues<sup>66</sup> investigated the performance of three main components of intellectual capital i.e. efficiencies of human capital, structural capital and capital employed and its effect on organizational performance. Their results reported that human intellectual capital facets showed significant positive influences on financial performance. Further, Bontis and Serenko<sup>67</sup> examined the antecedents and consequents of human intellectual capital in the financial services industry and found significant positive relations among intellectual capital, employee commitment and motivation, relational capital and business performance. Supporting these results, Bontis and Fitz-Enz<sup>68</sup> have indicated that human intellectual capital has positive impacts on employee motivation, employee commitment, knowledge integration, and overall organizational performance. Another study indicated that human intellectual capital enhancement caused greater innovativeness and that in turn offered positive implications on employee performance<sup>69</sup>. It was asserted that the creation and enhancement of human intellectual capital would lead to high performance among the employees and high performance work contexts<sup>69</sup>.

Therefore, in the present study, it is suggested that intellectual capital aspects of employees can constitute a positive foundation for generating further individual performance in terms of both task related job performance and extra-role performance so-called OCBs. Employees

related job performance and extra-role performance so-called OCBs. Employees also tend to value being engaged in citizenship behaviors as well as generating higher job related performance behaviors. Thus, based on the previous literature and suggested relations of intellectual capital with employee and organizational performance, the following hypotheses are generated and the conceptual framework is suggested (Figure 1).

Hypothesis 1 Intellectual capital of the organizations will have positive influence on the employees' in-role performance behaviors.

Hypothesis 2 Intellectual capital of the organizations will have positive influence on the employees' extra-role performance behaviors.

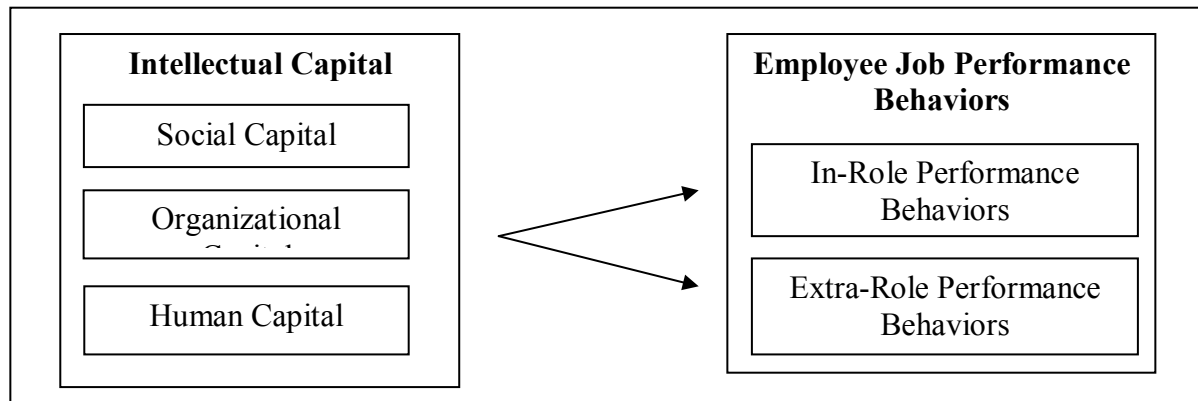
### 3. The Methodology

#### 3.1 Questionnaire Survey

This study used questionnaire survey to collect data and examine the association between intellectual capital perceptions of employees and generation of their in-role and extra-role performance behaviors. Statistical population in this research included 180 personnel of three selected private banks in Turkey. Referring to the Krejcie and Morgan<sup>70</sup> table, the sample size minimum level was determined as 123 people. 140 questionnaires were distributed among respondents with convenient sampling and 129 questionnaires were returned. Regarding the participants, 69.8% were women; the mean of the employees' age was 36.56 years (SD= 9). Mean of years of working in the current organization was 9.7 (SD=7.5), and the mean of years as participants had work experience was 12.8 (SD= 9.7). For educational information, 69.8% of the respondents held a Bachelor's degree, 26.1% a Master's degree and 2.1% had a Doctorate degree.

#### 3.2 Instruments

The respondents rated a Likert six-point scale from 'Strongly disagree' (1) to 'Strongly agree' (6). All the scales adopted by this study are from the literature. To measure social, organizational and human capitals, the intellectual capital scales developed by Youndt et al.<sup>6</sup> were used in this study. The scales have been used by Su<sup>48</sup> and revealed high internal consistency. To test their applicability in the research context, the authors reviewed and adapted the each of the items within the scales. In the study of Su<sup>48</sup>,



**Figure 1.** Conceptual Framework of the Study.

Social Capital scale's Cronbach's Alpha value was reported as 0.874, Organizational Capital scale's value was 0.768, and Human Capital scale's value was 0.872. Examples for the Social Capital scale items are "We are skilled at collaborating with each other to diagnose and solve problems", "We apply knowledge from one area of the company to problems and opportunities that arise in another"; for Organizational Capital scale "Our organization uses patents and licenses as a way to store knowledge", "Our organization embeds much of its knowledge and information in structures, systems and processes"; and for Human Capital scale "We are widely considered the best in our industry", "We are experts in their particular jobs and functions.

The dependent variable of this study is the breadth of an employee's in-role and extra-role behaviors at work. Employee job performance behaviors was composed of 2 sub dimensions/constructs in this study. This variable was operationalized using the seven-item scale developed by Williams and Anderson<sup>29</sup> to measure performance behaviors. Burney et al.<sup>17</sup> have also utilized the instrument and in their study the Cronbach's Alpha of 0.899 indicated high internal consistency. This measure described "in-role" behavior, defined as "behaviors that are recognized by formal reward systems and are part of the requirements as described in job descriptions"<sup>29</sup>. After reviewing and adapting the items, we asked the participants to rate their own completion of required job tasks. Specifically, we asked questions such as whether the employee fulfills responsibilities specified in the job description with a self-report technique. The scale included items such as "I engage in activities that will directly affect his/her performance evaluation" and "I fulfill responsibilities specified in my job description".

Extra-role behaviors have been often characterized as "organizational citizenship behaviors"<sup>29</sup>. A seven-item scale developed by Williams and Anderson<sup>29</sup> was used to measure extra-role behaviors executed towards the organization. Examples for items involved items about how the employee complains about insignificant things in the workplace (a reverse-coded item), how protects organizational property, and follows informal rules for enabling order. The scale has been used by Burney et al.<sup>17</sup> and revealed a Cronbach's Alpha of 0.722, which indicated high internal consistency. Examples for the items in the scale are "I conserve and protect organizational property." and "I adhere to informal rules devised to maintain order".

### 3.3 Reliability and Validity Analysis

Cronbach's alpha was used to evaluate the scale reliability. The Cronbach's alpha reliability of all latent variables were over 0.7 ( $\alpha > 0.7$ ), showing that the scales reported high reliability. The summary statistics of the survey are shown in Table 1. Content and construct validities were used to assess the validity of the scales. For testing the content validity, 10 experts and University professors were asked to assess the overall questionnaire and to modify it. These experts assessed the questionnaire items and confirmed them. Further, in this research, Confirmatory Factor Analysis was factor analysis was applied for evaluating the construction of the scales. Factor analysis reported that all the mentioned criteria were measured in the questionnaire. Table 2 presents the CFA results.

### 3.4 Result

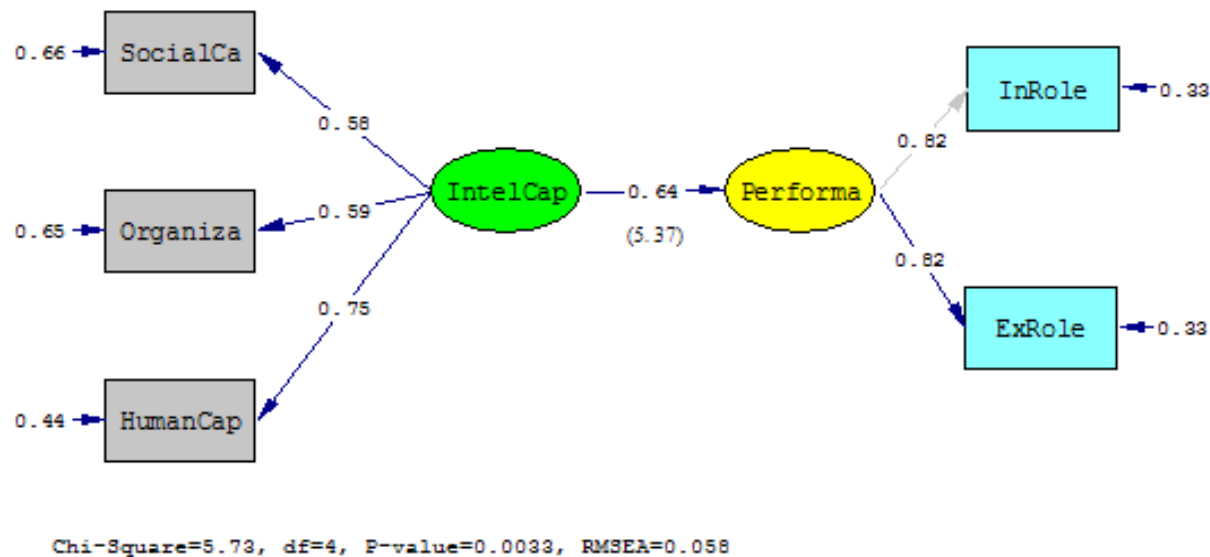
In this study, we analyzed the relationship between

**Table 1.** Results of Means and Cronbach's Alpha Test

VARIABLE	Research Questionnaire Items	Mean	Cronbach's Alpha
Intellectual Capital	1. We are skilled for collaborating with each other to diagnose and solve problems.	4.0410	.....
	2. We share information and learn from each other.	4.4891	.....
	3. We interact and exchange ideas with individuals from different areas of our organization.	3.9780	.....
	4. We interact with customers, suppliers, alliance partners, etc., for developing new solutions.	3.3713	.....
	5. We apply the knowledge of one area of the organization when same problems and opportunities arise in another area.	3.8915	.....
	<b>First Section: Social Capital</b>	<b>3.9504</b>	<b>0.786</b>
	1. Our organization has patents and licenses for storing knowledge.	4.3566	.....
	2. Our organization's knowledge is stored and saved in manuals, databases, etc.	4.3333	.....
	3. Our organization's culture (stories, rituals) involves valuable ideas, methods of doing business, etc.	4.2713	.....
	4. Our organization embeds its knowledge and information in structures, systems and processes.	4.6512	.....
	<b>Second Section: Organizational Capital</b>	<b>4.4031</b>	<b>0.758</b>
	1. We are highly skilled.	3.9302	.....
	2. We are widely considered the best in our industry	3.8682	.....
	3. We are creative and bright.	4.2636	.....
	4. We are experts in our jobs and facilities.	4.3411	.....
	5. We develop new ideas and knowledge.	4.0620	.....
	<b>Third Section: Human Capital</b>	<b>4.0930</b>	<b>0.762</b>
	<b>The Whole Questionnaire of Intellectual Capital</b>	<b>.....</b>	<b>0.816</b>
Job Performance Behaviors	1. I adequately complete assigned duties.	4.0233	.....
	2. I fulfill responsibilities specified in my job description.	4.2791	.....
	3. I perform tasks that are expected of me.	4.6512	.....
	4. I meet formal performance requirements of my job.	4.5349	.....
	5. I engage in activities that will directly affect my performance evaluation.	4.4264	.....
	6. I neglect aspects of the job I am obligated to perform.	4.2326	.....
	7. I fail to perform essential duties.	4.0433	.....
	<b>First Section: In-Role Performance Behaviors</b>	<b>4.3129</b>	<b>0.797</b>
	1. My attendance at work is above the norm.	3.8605	.....
	2. I give advance notice when unable to come to work.	4.3721	0.776
	3. I take undeserved work breaks.	3.6977	.....
	4. I spend long time with personal phone calls.	4.2093	.....
	5. I complain about insignificant tasks in the workplace.	4.0310	.....
	6. I protect organizational properties.	4.3566	.....
	7. I accept the informal rules in order to sustain order.	3.9705	0.802
	<b>Second Section: Extra-Role Performance Behaviors</b>	<b>4.0711</b>	<b>0.795</b>
	<b>The Whole Questionnaire of Job Performance Behaviors</b>	<b>.....</b>	<b>0.846</b>

**Table 2.** Fitness Indices of Structural Model: Construct Validity

Fitness Indices	Measure of Index	Principle
Chi-Square/df	1.4325	< 3
P-value	0.0033	< 0.05
Root Mean Square Error of Approximation (RMSEA)	0.058	< 0.1
Normed Fit Index (NFI)	0.97	> 0.9
Non-Normed Fit Index (NNFI)	0.98	> 0.9
Comparative Fit Index (CFI)	0.99	> 0.9
Incremental Fit Index (IFI)	0.99	< 1 & > 0
Relative Fit Index (RFI)	0.93	> 0.9
Goodness of Fit Index (GFI)	0.98	> 0.9
Adjusted Goodness of Fit Index (AGFI)	0.93	> 0.9

**Figure 1.** Conceptual Framework of the Study.

Intellectual Capital and Employee Job Performance Behaviors by applying Structural Equation Modeling (SEM) technique. To test the hypothesis, we performed our structural model including 3 dimensions of Intellectual Capital, and 2 dimensions of Job Performance Behaviors. The findings of the SEM analysis are displayed with Figure 2. Further, the hypothesis test findings in terms of path coefficients (standardized) and t-value test are shown in Table 3.

As stipulated by the hypothesis statement, a significant relationship between total intellectual capital and employee job performance construct was found.

The research findings concurred with the hypothesis since intellectual capital recorded path coefficient of 0.64 (t-value = 5.37) hence the hypothesis of the present study is supported (Table 3).

## 4. Conclusion and Discussion

This study has addressed the question of intellectual capital is associated with the employee performance behaviors in the organizations. This study argued that perceived intellectual capital would be associated with the employee behavioral outcomes of two distinct constructs of



Table 3. Hypothesis Test

No	Hypothesis	Path coefficients	t-value	Results
H <sub>1</sub> & H <sub>2</sub>	Intellectual Capital → Employee Job Performance Behaviors	0.64	5.37	Accepted

performance behaviors—in-role and extra-role behaviors—and showed the importance of social, organizational, and human capital in their development. A structured questionnaire survey was adopted as the research method, and the sample was comprised of selected three private banks in Turkey. The results indicated that the banks with higher intellectual capital had increased employees' behavioral outcomes of in-role and extra-role performance. It was affirmed that intellectual capital had a significant influence on employee job performance, specifically had contributions on both employee in-role behaviors and extra-role behaviors. Thus, the findings of this study support the previous implications which addressed that the emphasis on the intellectual capital enhancement resulted in high performance among the employees<sup>69</sup>. Moreover, since our research has been performed among employees working in Turkish banks, the findings demonstrated that intellectual capital perception among bank organizations were high, respectively. In addition, the reported in-role and extra-role behaviors were relatively high among the bank employees. Kemboi and colleagues<sup>23</sup> study also demonstrated the impact of intellectual capital on employee performance among commercial banks in Kenya. Additionally, in Turkey, Oğraş<sup>44</sup> found that intellectual capital had positive impact on the performance of banks. Therefore, it is suggested that the findings of the present study are also consistent with the previous works regarding the banking context. For summary, in supporting to address intellectual capital and employee job performance behaviors together and the relationship between them<sup>23,60,67,69</sup>, this study extended the extant intellectual capital literature through combining research on intellectual capital theories and examining the relates of intellectual capital with social, organizational and human capitals in a quantitative manner.

5. Implications and Limitations

The findings of this study provide empirical evidence supporting the recent business trend in enhancing intellectual capital to increase good talent, improve corporate value and establish learning environment, open

communication, collaboration and creative improvement and product development. This study represents a step concerning the quantitative examination of the association between three components of intellectual capital and two constructs of job performance behavior, which we suggest that such an attempt may enhance further research on this subject.

As part of the limitations, we suggest that the survey was performed among banking employees working in selected banks in Turkey, thus, the findings cannot be generalized to the whole population. The future studies might be conducted within larger group of employees, especially among higher amount of organizations, so that better information could be obtained regarding the significance of the relationship between intellectual capital and employee job performance. Moreover, the future studies may include other personal, situational, and organizational variables in the research model in order to examine other contingent parameters that may have a role on the intellectual capital and job performance relationship. Finally, it is argued that the self-report method in collecting data while measuring employee job performance could create bias. Since, self-report method was used for collecting survey data in this study, it is supposed that this may result bias and it is recommended for future studies to utilize supervisor-report method in measuring job performance for increasing the reliability of the results.

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