

## The impact of intellectual capital on Internal organizational entrepreneurship and financial performance of the Directorate General of prisons in Khuzestan province

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**Abstract:** The present study aimed to investigate the impact of intellectual capital on Internal organizational entrepreneurship and financial performance of the Directorate General of prisons in Khuzestan province. The statistical population of this study have composed of all staff of in the Directorate General of prisons in Khuzestan province. Whose number is equal to 200. Which according to Morgan's table, the sample size is 127, which were selected by convenience sampling method and questionnaires were distributed among them. All information of field requirements by Three questionnaires: Questionnaire intellectual capital (Bontis, 1998), Internal organizational entrepreneurship Questionnaire (Moghimi et al., 2012) and Questionnaire financial performance (Azizi, 2012) were collected. Questionnaire validity by technique content validity and Questionnaire reliability by technique a Cronbach's alpha test was confirmed. Structural equation modeling technique SEM (Software Smart-PLS), were used to test the research hypotheses. Results showed that the dimensions of intellectual capital on Internal organizational entrepreneurship and financial performance of the Directorate General of prisons in Khuzestan province has a positive significant impact.

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**Keywords:** dimensions of intellectual capital, Internal organizational entrepreneurship, financial performance

### Introduction

In today's global economy, knowledge as the most important capital has replaced physical and financial capitals and a knowledge-based environment requires an approach that embraces new intangible organizational assets such as innovations of human resources, customer relations, organizational structure, etc. Nowadays, those organizations are successful and can survive in the competitive world that constantly apply new ideas in the organization, and this becomes possible by managers and creative staff. On the other hand, performance evaluation of organizations has its own complexities with respect to different goals of organization, diversity of activity fields, and their different and impossible entities. Currently, performance evaluate of many companies and organizations is based on financial indicators. According to the above issues, the aim of this study was to evaluate the impacts of intellectual capital dimensions on intrapreneurship and financial performance of the General Administration of Prisons in Khuzestan Province.

### Research literature

Iranian investigations

Ramezani et al. studied four key indicators of corporate performance and efficiency of intellectual capital using Pulic model from 2006 to 2010. The results showed direct relationships between

intellectual capital with the indicators of return on equity, return on assets, the ratio of market value to book value per share, and earnings per share.

Qadri et al. examined the relationship between intellectual capital and evaluation criteria of corporate financial performance. The results indicated no significant relationships between intellectual capital and return on assets, earnings per share, and the ratio of using assets.

Karamshahi et al. (2015) investigated the effects of intellectual capital on the market value and financial performance of a business unit and found that in the chemical product industry, intellectual capital does not affect the market value whereas some of its components can affect the market value.

### International research

Masrinsinkeh et al. (2011) conducted a study on the impact of intellectual capital upon corporate entrepreneurship and concluded that intellectual capital and its components (structural capital, human capital, and customer capital) affect the organization's entrepreneurship.

Jol Rahman et al. (2013) investigated the effect of intellectual capital on financial performance of the insurance sector of Pakistan to measure the intellectual capital performance in the insurance sector. Their results showed that there was a positive relationship

between the two approaches (VA, VAIC) and the financial performance indicators.

Depp and Narwhal (2014) carried out a case study on the intellectual capital and its relationship with financial performance in Hendry textile sector from 2003 to 2012. The results showed a significant positive correlation between intellectual capitals and profitability of the company.

**Hypotheses**

**The main hypothesis of research**

1. Dimensions of intellectual capital have significant positive effects on intrapreneurship and financial performance of the General Administration of Prisons in Khuzestan Province.

**Sub-hypotheses**

1. Human capital has a significant positive effect on intrapreneurship in the General Administration of Prisons in Khuzestan Province.

2. Relational capital has a significant positive effect on intrapreneurship in the General Administration of Prisons in Khuzestan Province.

3. Structural capital has a significant positive effect on intrapreneurship in the General Administration of Prisons in Khuzestan Province.

**Conceptual model**

According to theoretical foundations and the literature, the proposed research model is as follows.

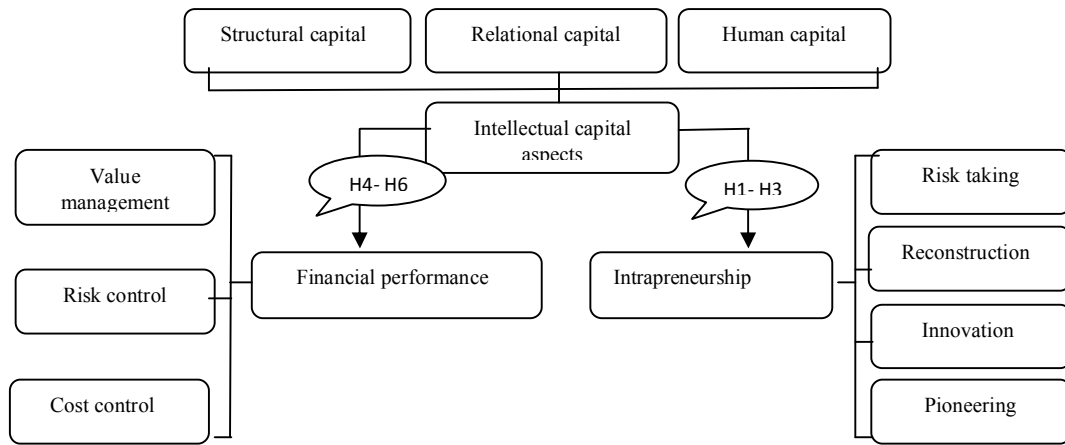


Figure 4-5.

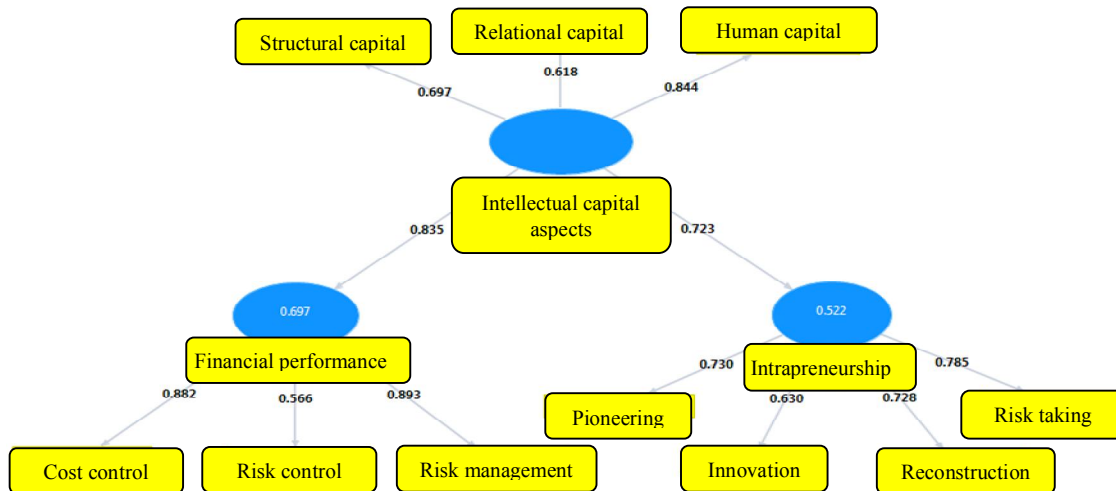


Figure 4-6. The research model (analysis of the main hypothesis) in significance mode

**Research methodology**

The current research is applied with regard to the purposes. In terms of data collection, this is a descriptive-correlational research. It is a cross-sectional survey based on the period of data collection

and a quantitative study depending on the nature of the data.

**Statistical population**

The population in this study consisted of all employees in the General Administration of Prisons in Khuzestan Province, which were equal to 200

individuals. According to Morgan’s Table, a minimum of 127 samples should be taken into account from a total of 200 individuals, who were included in the study through available sampling method.

**Analysis of research hypotheses**

**Main hypothesis**

The PLS model was fitted to analyze this hypothesis. Figures 4-5 and 4-6, respectively, present the standard coefficients and significance levels for the adjusted model.

As seen in Figure 4-5, the external path coefficients are all higher than 0.5, the path coefficients of the internal model and intellectual capital aspects-intrapreneurship are equal to 0.723, and that of intellectual capital-financial performance has been achieved as 0.535.

The above figure shows the model in a significance mode. Considering the fact that all the values of t-statistic are greater than 2.57, the path coefficients, therefore, are significant at a level of one percent (with 99% confidence).

According to Table 4-6, the effects of intellectual capital on intrapreneurship and financial performance is significant at a level of one percent (with 99% confidence) indicating that the intellectual capital aspects can predict and estimate 52 percent of changes in intrapreneurship and 69 percent of alterations in the financial performance. In addition, because the path coefficients are positive values of 0.723 and 0.835, it can be deduced that the intellectual capital aspects have had significant positive effects on both intrapreneurship and financial operation. Thus, the main hypothesis is not rejected.

Table 4-6. Results of the main hypothesis test.

Hypothesis	Path	Path coefficient		t-value		R <sup>2</sup>		Result
		Intellectual capital aspects Intrapreneurship ←	Intellectual capital aspects Financial operation ←	Intellectual capital aspects ← Intrapreneurship	Intellectual capital aspects ← Financial operation	Intrapreneurship	Financial operation	
Main	Intellectual capital aspects ← Intrapreneurship and financial operation	0.723	0.835	16.314	29.169	0.52	0.69	H1 Accepted

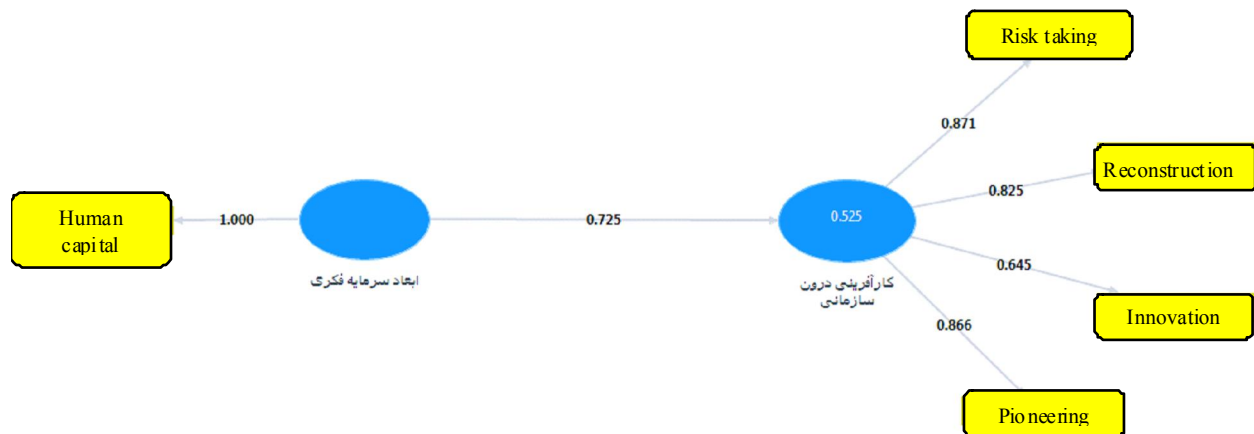


Figure 4.7. Research model (analysis of the first sub-hypothesis) with standardized coefficients.

As seen in the above figure, the coefficient of the internal model (effect of human capital on intrapreneurship) has been obtained as 0.725.

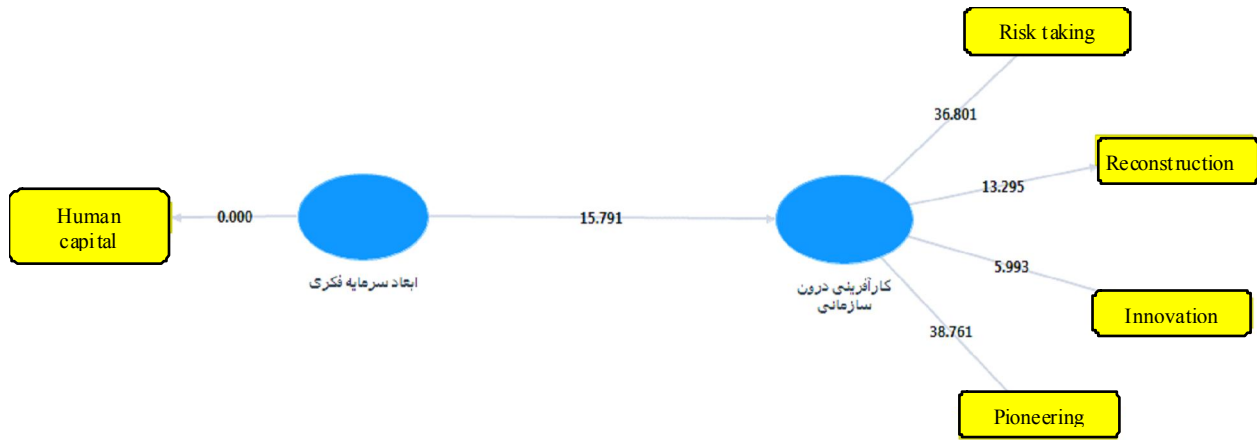


Figure 4.8. Research model (analysis of the first sub-hypothesis) in significance mode.

The above figure shows the model in a significance mode. A t-statistic greater than 2.57 indicates that the path coefficients are significant at a level of one percent with 99 percent confidence.

result	the amount of R <sup>2</sup>	t-value	Factor Direction	Direction	hypothesis
H1 Acceptance of the hypothesis	525/0	791/15	725/0	Human Capita ← Intrapreneurship	first sub

Table 4-8. First sub-hypothesis test results.

According to Table 4-8, the effect of human capital on intrapreneurship is significant at a level of one percent (with 99% confidence) showing that the human capital alone can predict and estimate 52 percent of changes in intrapreneurship. In addition,

because the path coefficient is a significant positive value of 0.725, it can be deduced that human capital aspects have had positive effects on intrapreneurship. Thus, the first sub-hypothesis is not rejected.

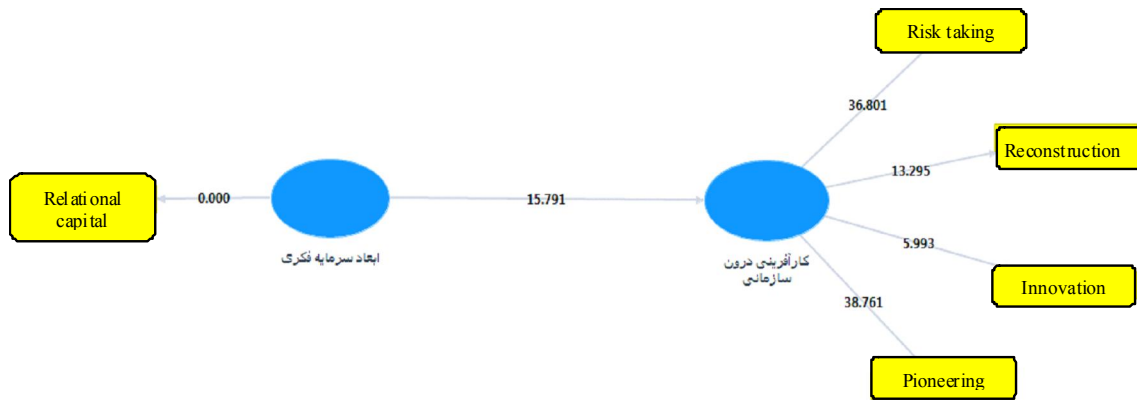


Figure 4.10. Research model (analysis of the 2<sup>nd</sup> sub-hypothesis) in significance mode.

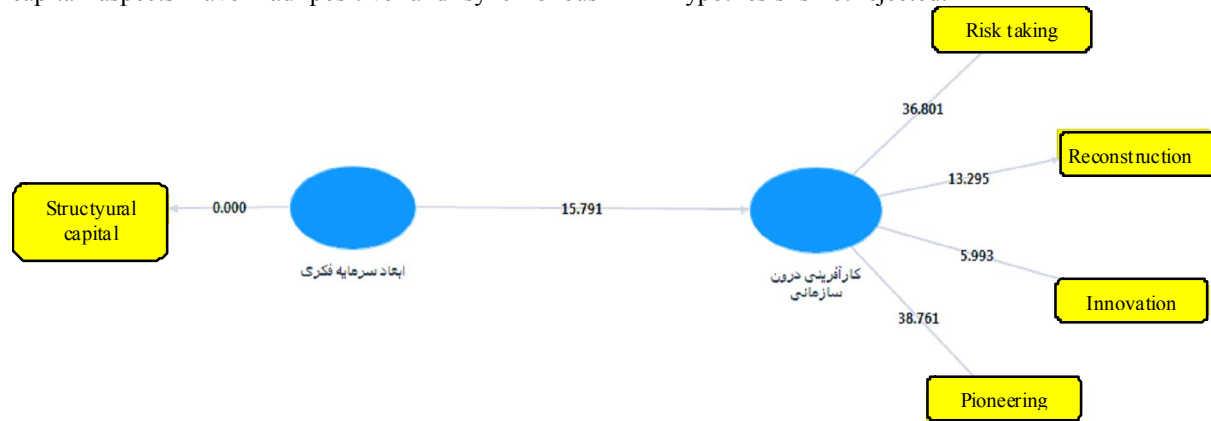
According to the above figure, the t-statistic is greater than 2.57. The path coefficients are, hence, significant at a level of one percent with 99 percent confidence.

According to Table 4-9, the effect of relational capital on intrapreneurship is significant at a level of one percent (with 99% confidence) implying that the relational capital alone can predict and estimate 30 percent of changes in intrapreneurship. In addition, because the path coefficient is a significant positive

Table 4-8. The second sub-hypothesis test results.

value of 0.550, it can be deduced that the relational capital aspects have had positive and synchronous

effects on intrapreneurship. Thus, the second sub-hypothesis is not rejected.



third sub-hypothesis:

The

The PLS model was used to analyze this hypothesis. If the t-statistic as well as the t-statistic of each path are higher than 2.57, it means that the path coefficient is significant at a confidence level of 99%.

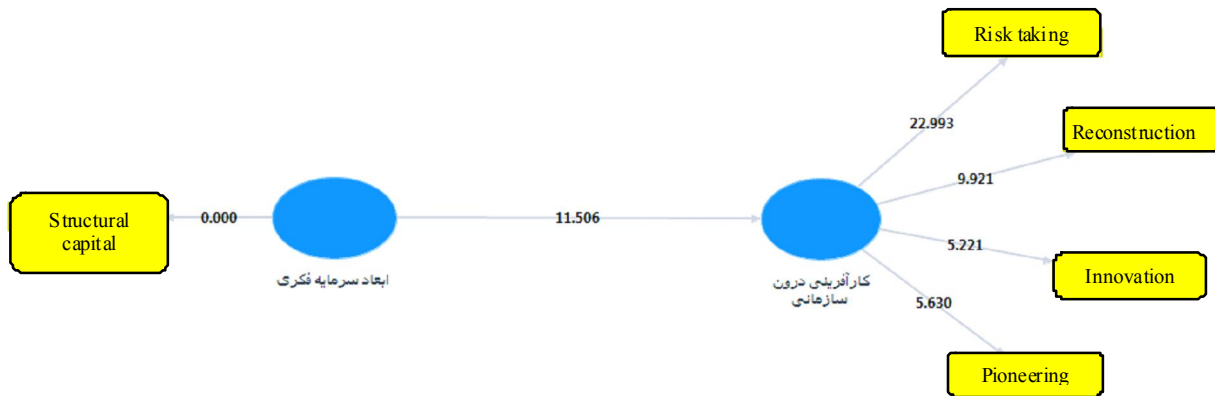


Figure 4.11. Research model (analysis of the 3<sup>rd</sup> sub-hypothesis) with standardized coefficients.

As can be seen in the above figure, the path coefficient of the internal model (the effect of structural capital on intrapreneurship) has been obtained as 0.672. The above figure shows the model in a significance mode as the t-statistic is greater than 2.57. Accordingly, the path coefficients are significant at a level of one percent with 99 percent confidence.

Table 4-10. The third sub-hypothesis test results.

According to Table 4-10, the effect of structural capital on intrapreneurship is significant at a level of one percent (with 99% confidence) suggesting that the structural capital alone can predict and estimate 30 percent of changes in intrapreneurship. In addition, because the path coefficient is a significant positive value of 0.550, it can be deduced that the structural capital has had a positive and synchronous effect on intrapreneurship. Thus, the third sub-hypothesis is not rejected.

Analysis of research findings  
Findings from the main hypothesis

The effects of the independent variable (dimensions of intellectual capital) on the dependent variables (intrapreneurship and financial performance) are equal to 0.723 and 0.835, respectively. Also, the dimensions of intellectual capital can predict and estimate 52% and 69%, respectively, of changes in intrapreneurship and financial performance. In addition, because the path coefficients are positive values of 0.723 and 0.835, it can be concluded that the aspects of intellectual capital have positive and synchronous effects upon intrapreneurship and financial performance of the General Administration of Prisons in Khuzestan Province.

To explain this hypothesis, it is inferred that the dimensions of intellectual capital are closely associated with both intrapreneurship and financial performance. This means that with higher correlation coefficients for this relationship, the target population will benefit from the results.

The results of the first sub-hypothesis

The effect of the independent variable (human capital) on the dependent variable (intrapreneurship) is equal to 0.725. Also, the human capital alone can predict and estimate 52% of changes in intrapreneurship. In addition, because the path coefficient is a positive value of 0.725, it can be concluded that the human capital has a positive and synchronous effect upon intrapreneurship.

To explain this hypothesis, it is deduced that the human capital is closely associated with intrapreneurship. This means that with higher correlation coefficients for this relationship, the target population will benefit from the results.

The results of the second sub-hypothesis

The effect of the independent variable (relational capital) on the dependent variable (intrapreneurship) is equal to 0.550. Also, the relational capital alone can predict and estimate 30% of changes in intrapreneurship. In addition, because the path coefficient is a positive value of 0.550, it can be concluded that the relational capital has a positive and synchronous effect upon intrapreneurship.

To explain this hypothesis, it is inferred that the relational capital is closely associated with intrapreneurship. This means that with higher correlation coefficients for this relationship, the target population will benefit from the results.

The results of the third sub-hypothesis

The effect of the independent variable (structural capital) on the dependent variable (intrapreneurship) is equal to 0.672. Also, the structural capital alone can predict and estimate 45% of changes in intrapreneurship. In addition, because the path coefficient is a positive value of 0.672, it can be concluded that the structural capital has a positive and synchronous effect upon intrapreneurship.

To explain this hypothesis, it is presumed that the structural capital is closely associated with intrapreneurship. This means that with higher correlation coefficients for this relationship, the target population will benefit from the results.

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