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Shiraz, Iran

Assessing the Privatization in Iranian Banking Industry:

An Intellectual Capital Performance Perspective

Mohammad Hasan Fotros, Tooraj Beygi
Bu-Ali Sina University, Hamedan, Iran

September 2009

fotros@basu.ac.ir






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Privatization is the full or partial transfer of ownership of public sector assets to the private sector.

To assess the banking privatization of Iran, we used the efficiency measures to investigate the impact of privatization on Iranian banking performance.

Some of the largest public and private banks of banking industry are studied from **Intellectual Capital**(IC) point of view


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IC has been identified as a set of intangibles that drives the organizational performance.

We compare intellectual capital measures across the two sectors to evaluate the impact of privatization on banking performance of Iran.

The results indicate that there are vast differences in the performance of the two sectors.




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Our empirical results support the hypothesis that private banks are more **efficient** than state-owned banks (SOBs).
So the **privatization** has **increased** the **efficiency** of Iranian banking industry.



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Privatization of banks is a part of the financial and non-financial reform agendas in Iran.

An issue to investigate: does privatization improve banking performance?



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Purpose of this study

- (i) examine interrelationships among intellectual capital components and banking organizational performance;
- (ii) study the interaction effects among intellectual capital components and organizational performance ;and
- (iii) compare two Iranian banking contexts




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- and propose this approach as a way of assessing the privatization policy in banking industry.
- **Intellectual Capital Performance**
- management deals with intangible resources as well as physical resources.
- The concept of Intellectual Capital helps to evaluate the performance of an organization and to explain the managerial development.



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Edvinsson and Malone (1997) define **IC** as
“Knowledge that can be converted to value”.

Sveiby (1997) propose a classify intellectual capital into three broad areas of intangibles:

- (1) Human capital;
- (2) Structural capital; and
- (3) Customer capital. Bontis (1996), replaced customer capital with **relational capital**.




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Human capital represents the individual stock of an organization as represented by its employees. Roos *et al.* (1997) argue that employees generate intellectual capital through their competence, attitude and intellectual agility.

Competence includes skills and education, while **attitude** covers the behavioral component of the employees' work.




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Intellectual agility enables one to change •
practices and to think of innovative solutions
to problems.

Structural capital includes all the non-human •
storehouses of knowledge in organizations.
Edvinsson and Malone (1997) define **SC** as the
hardware, software, databases, organizational
structure, patents, trade marks, and all
organizational capabilities that support the
employees' productivity.



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Roos *et al.* (1997) describe **SC** as what remains
in the company when employees go home for
the night. According to Bontis (1998), if an
organization has poor systems and procedures
to track its actions, the overall intellectual
capital will not reach its full potential.




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Customer capital is both the current value of an
organization's relationships with its customers
and the potential future value of these
relationships.




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Organizational performance is a subset of organizational effectiveness. The narrowest conception considers the use of financial indicators (sales growth, return on investment, and on equity) while the broader concept includes indicators of operational performance (non-financial indicators). We consider both aspects **OP** (i.e., financial and operational indicators).




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Methodology

Data Collection and Sample We used the original questionnaire developed by Bontis (1997) and administered in Canada and Malaysia. The instructions in the questionnaire were altered to replace the words “organization”, “industry” and “transaction” with “bank”, “sector” and “operation”, respectively.




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The ten performance items were reworded in accordance with banking system accounting plan, reflecting a more familiar financial language. The questionnaire contained 63 statements to which respondents indicated the extent of their agreement on a five-point Likert scale (1= strongly disagree and 5= strongly agree). The respondents were all chief executive officers, regional directors and the directors of functional areas




Cronbach's alpha test was used to examine the reliability of the data.

Cronbach's alpha can be considered as an adequate index of the inter-item consistency reliability of independent and dependent variables.




Possibility of Performing Factor Analysis Before conducting the exploratory factor analysis (EFA) (construct validity), we tested whether the variables are correlated with each other.

According to Bartlett's Test of Sphericity ($\text{sig} = 0.000$), when variables correlate with each other, it means that it is possible to perform a factor analysis.



The **Kaiser-Meyer-Olkin (KMO)** measures of sampling adequacy indicate a practical level of common variance and therefore appropriateness of factoring.




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Principal Component Analysis (PCA)


In developing exploratory factor analysis we used the following criteria.

First, only factors with eigenvalues greater than one were extracted. **Second**, only factor loadings greater than 0.50 were considered in the analysis. **Third**, items with extractions lower than 0.5 were left outside the analysis. The extraction technique used was PCA



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VARIMAX rotation procedure (using SPSS 15.0) was conducted on the latent variables items to determine if they were multidimensionals.



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Summary of reliability test and EFA

Table 1
Summary of reliability test and EFA

Variable	Sector	Cronbach's alpha	KMO	Factors	Total cumulative % R ²
Human Capital	Public	0.726	0.668	Employee's team work Employee's competence Employee's creativity Employee's satisfaction	63.061
	private	0.837	0.677	Employee's attitude Employee's team work Employee's competence Employee's creativity	74.433
Structural Capital	Public	0.734	0.656	Operation process Organizational structure Innovation mechanism	54.783
	private	0.845	0.735	Operation process Organizational efficiency Innovation mechanism	69.378
Customer Capital	Public	0.759	0.694	Customer satisfaction Market intensity Customer loyalty	53.835
	private	0.863	0.762	Customer loyalty Market intensity Customer relationship	66.618
	Public	0.841	0.806	Financial performance Management performance	60.277

In running the confirmatory factor analysis in LISREL 8.5, we used the covariance matrix of the items. The resulting factor structure and models' fit was excellent and confirmed the factor structure of the modified IC performance models in both sectors. The measurement model satisfied the criteria for convergent and construct validity.

Table II.CFA tests of model fit for IC elements and banking performance

			GH	AGH	RMSEA
Human Capital	Public (four factors, 10 indicators)	25.30 (df=29)	0.96	0.93	0.08
	Private (four factors, 12 indicators)	77.86 (df=40)	0.91	0.89	0.07
Structural Capital	Public (three factors, 10 indicators)	50.78 (df=31)	0.93	0.87	0.07
	Private (three factors, 9 indicators)	37.53 (df=18)	0.94	0.85	0.09
Customer Capital	Public (three factors, 11 indicators)	57.12 (df=40)	0.93	0.88	0.05
	Private (three factors, 11 indicators)	34.84 (df=31)	0.95	0.90	0.03
Organizational Performance	Public (two factors, 8 indicators)	40.69 (df=19)	0.93	0.86	0.09
	Private (two factors, 8 indicators)	14.37 (df=14)	0.97	0.93	0.06

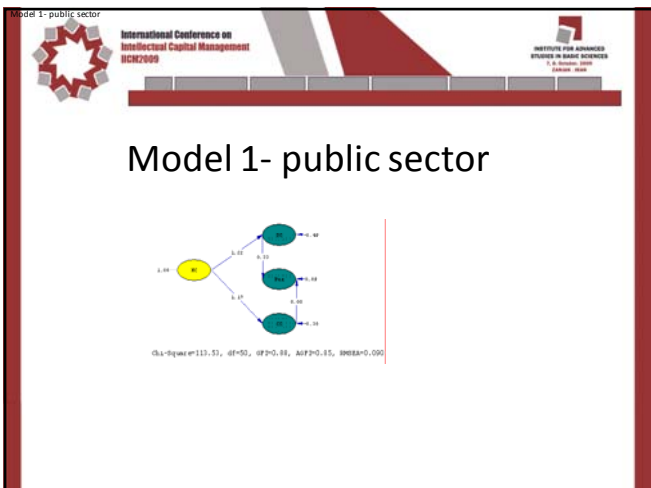


Table III.
Results for path analysis






Table III.
Results for path analysis




Path From → to	Human capital → Customer capital	Human capital → Structural capital	Customer capital → Structural capital	Human capital → Performance	Customer capital → Performance	Structural capital → Performance
Model 1 Public sector	1.17 (5.23)	1.22 (9.96)	--	0.41 (4.33)	0.00 (0.02)	0.33 (2.75)
Model 2 Private sector	1.15 (10.48)	1.23 (11.97)	0.48 (2.69)	0.58 (4.32)	0.47 (4.12)	0.07 (0.66)
Comparison	Virtually identified	Virtually identified	Lower for Public sector	Lower for Public sector	Lower for Public sector	Higher for Public sector


Notes:
Top numbers is beta coefficient
t-stat in brackets



The results in Table III show a positive, substantive and significant beta coefficient for this relationship with organizational performance for the public and private samples. This result implies that IC is more important in private sector banks than in public sector banks. So, privatization has resulted in clear performance improvements in Iranian banking industry. It seems that the large inefficient work force of public sector banks in Iran, had not contributed anything to overall value creation.



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Our results indicate that intellectual capital is substantively and significantly related to the organizational performance in the Iranian banking industry. Future research can extend the present work in several directions
