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Intellectual capital accounting: practices in the Republic of Kazakhstan

Contabilidad del capital intelectual: prácticas en la República de Kazajstán

Galymzhan KERIMBEK 1; Katira SATYMBEKOVA 2; Zauresh IMANBAYEVA 3; Erlan ONLASYNOV 4; Sapar ZHAKIPBEKOV 5; Zhanat TUREBAYEVA 6; Bakhytzhamal ZHUMATAYEVA 7; Akilbek ILYAS 8

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Content

ABSTRACT:

Nowadays, the development of intellectual potential is one of the main ways of modernizing Kazakhstan's economy. Therefore, this research is devoted to the analysis of intellectual capital accounting patterns in Kazakhstan. The study examined the application of the method of Value Added Intellectual Coefficient. The findings show that intellectual capital affects the cost increases and profitability of the company. The patterns of intellectual capital accounting are described. The authors provided a comparison of the current methodologies of assessment and management of intangible assets. The research analyzed the current intangible capital accounting practice in the Republic of Kazakhstan and presented a correspondence of accounts. The assessment of intellectual capital is regarded as an effective tool in the management of innovative development of organizations. The results of the study can be useful for policy makers and regulatory bodies during the development of intellectual capital accounting guidelines.

Keywords: intangible assets management;methods of valuation of intellectual capital; knowledge economy;Value Added Intellectual Coefficient; Republic of Kazakhstan.

RESUMEN:

Hoy en día, el desarrollo del potencial intelectual es una de las principales formas de modernizar la economía de Kazajstán. Por lo tanto, esta investigación se dedica al análisis de los patrones de contabilidad del capital intelectual en Kazajstán. El estudio examinó la aplicación del método del Coeficiente Intelectual de Valor Agregado. Los hallazgos muestran que el capital intelectual afecta los aumentos de costos y la rentabilidad de la empresa. Se describen los patrones de contabilidad del capital intelectual. Los autores proporcionaron una comparación de las metodologías actuales de evaluación y gestión de activos intangibles. La investigación analizó la práctica actual de contabilidad de capital intangible en la República de Kazajstán y presentó una correspondencia de cuentas. La evaluación del capital intelectual es considerada como un instrumento eficaz en la gestión del desarrollo innovador de las organizaciones. Los resultados del estudio pueden ser útiles para los formuladores de políticas y los organismos reguladores durante el desarrollo de las directrices de contabilidad de capital intelectual.

Palabras clave: gestión de activos intangibles; Métodos de valoración del capital intelectual; economía del conocimiento; Coeficiente Intelectual de Valor Agregado; República de Kazajstán.

1. Introduction

The human development of a country is directly related to economic growth and improvementof both national competitiveness and living standards (Cleary,& Quinn, 2016, pp. 255-278). Moreover, human capital is regarded as a profit lever of the knowledge economy (Tewarie,& Escalante, 2016, pp. 218-232).

It is worth pointing out that natural resources constitute only 5% ofthe national wealth of highly developed countries, while material (production) capital constitutes 18% and knowledge constitutes 77% (Chulanova,& Ussenova, 2015, pp. 19-25).

In the knowledge economy, businesses are placing bigger reliance on intellectual capital to nurture innovations for future economic growth ratherthan relying on physical assets. Thus, one can assume that more money would be invested in intellectual capital development.

It is possible to assessthe quality of intellectual capital through quantitative measurement of the achieved new high-quality transformations (Dosmanbetova, Dosmanbetova,& Dosmanbetova, 2015, p. 80).Of course, competitive intellectual capital of a country cannot be considered without regard to improvements in healthcare, formation of a quality educational system, and moreattention to the improvement of employment and labor conditions (Abhijeet,& Richa, 2010).

One can note that the majority of factors of development of intellectual capital can be measured by quantitative indexes. However, the level of their impact on human capital is not identical (Roslender,& Fincham, 2001, pp. 383-399).

Furthermore, the current trend is to consider traditional resources, such as capital, land, and labor as secondary to intellectual capital (Ramezan, 2011, pp. 88-95; Seetharaman, Helmi Bin Zaini Sooria,& Saravanan, 2002, pp. 128-148; Dumay, 2014, pp. 1257-1264; Nedoluzhko, Varkulevich, & Baturina, 2016, p. 332).

Hence, there is a particular interest in examining the models of intellectual capitalaccounting.

2. Results

2.1. The Value Added Intellectual Coefficient

The traditional measures of intellectual capital and financial performance involve the Value Added Intellectual Coefficient (VAIC) (Iazzolino,& Laise, 2013, pp. 547-563; de Silva, Stratford,& Clark, 2014, pp. 157-172).

This method focuses on the analysis of the structure and composition of capital of an organization.VAIC is a total of three indicators of physical capital employed efficiency (CEE), human capital efficiency (HCE) and structural capital efficiency (SCE).

The stages for computing VAIC are presented in Table 1.

Table 1
The procedures for computing VAIC.

Stage 1	Calculate Value Added (VA) VA = Output - Input VA = S – B – DP = W + I + T + D + NI S –net sales revenues; B – cost of goods sold; DP – depreciation;

	W – staff costs; I – interest expense, D – dividends; T – taxes; NI –net income (Riahi-Belkaoui, 2003, pp. 215-226).
Stage 2	Calculate physical capital employed (CE), structural capital (SC) and human capital (HC): CE = the total amount of capital used for the acquisition of profits. It is the value of all the assets employed in a business and can be calculated by adding fixed assets to working capital or subtracting current liabilities from total assets. HC = total investment in salary and wages for firm; SC = VA – HC.
Stage 3	Calculate physical capital employed efficiency (CEE), human capital efficiency (HCE) as well as structural capital efficiency (SCE). CEE = VA/CE; HCE = VA/HC; SCE = SC/VA.

2.2. The patterns of intangible assets accounting

The International Accounting Standard (IAS 38) determines the accounting procedure for intangible assets in the Republic of Kazakhstan. However, it does not apply to the following categories:

- intangible assets that are subject to other IAS;
- recognition and valuation of assets related to mineral exploration and evaluation;
- expenditures on the development and extraction of mineral resources, oil, natural gas and similar non-renewable resources (Law of the Republic of Kazakhstan "On Accounting and Financial Reporting", 2007).

In addition, the principles of intangible assets accounting are specified in the International Financial Reporting Standards (IFRS). It should be noted that the National Financial Reporting Standard in the Republic of Kazakhstan that was adopted by the Minister of Finance of the Republic of Kazakhstan on 31.01.2013 (No. 50) is currently invalid.

The comparative analysis of methodologies for intangible asset assessment and intangible assets accounting is presented in accordance with valid accounting standards (Table 2).

Table 2
Methodologies for intangible asset assessment and intangible assets accounting (comparative analysis)

Criterion	**IAS 38**	**IFRS for small and medium-sized businesses**
Recognition and Measurement	An intangible asset is initially measured at cost, which depends on how the company acquires the asset (separate acquisition, as part of a business purchase, by swap, etc.)	
Subsequent Accounting	Intangible assets can be carried:	Intangible assets shall be

	• at actual cost less than any accumulated amortization and accumulated impairment losses; • at revalued cost less than any accumulated amortization and accumulated impairment losses	measured at cost less than any accumulated amortization and any accumulated impairment losses
Amortization period	Amortization shall begin when the asset is available for use. Amortization shall cease at the earlier of the two dates: • the date when the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5; • the datewhen the asset is derecognized	Amortization shall begin when the asset is available for use. Amortization shall cease at the date when the asset is derecognized.
Amortization method	• straight-line method; • diminishing balance method; • units of production method	Reflects the pattern in which the asset's future economic benefits are expected to be consumed
Depreciation	Intangible assets are tested for impairment at each reporting date	Intangible assets are tested for impairment in accordance with Section 27 Impairment of Assets
Internally generated intangible assets	At the research phase – costs are recognized as a decrease in profit (expired costs). At development phase – costs can be capitalized under applied criteria in accordance with paragraph 57 of IAS 38	Expenditure on an intangible item shall be recognized as an expense when it is incurred, including all expenditures on research and development, except for those when they form part of the cost of another asset in accordance with EFRS

The cost of a separately acquired intangible asset comprises:

- of its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
- of any directly attributable cost of preparing the asset for its intended use (Pastor, 2017, pp. 387-410; Nugent, Pomelnikov,& Webb, 2017).

Examples of directly attributable costs are as follows:

- costs of employee benefits (as defined in IAS 19) arising directly from bringing the asset to its working condition;
- professional fees arising directly from bringing the asset to its working condition;
- costs of testing whether the asset is functioning properly.

Examples of expenditures that are not part of the cost of an intangible asset are:

- costs of introducing a new product or service (including costs of advertising and promotional activities);
- costs of conducting business in a new location or with a new class of customer (including costs of staff training);
- administration and other general overhead costs.

For example, the company has acquired the exclusive rights to use the patent of another company. The due amount of payment includes 2,200,000 tenge payable immediately and 480,000 tenge payable in a year. Additional costs arising from the acquisition of the rights are as follows:

- legal registration (45,000 tenge);
- registration of patent rights (3500 tenge).

The capital value of the company is 12%.

Thus, the cost of an intangible asset after initial recognition will include the following expenditures:

- cash paid – 2,200,000 tenge;
- deferred liability, measured according to discounted present value: 480,000 tenge $\times(1/(1 + 0,12)^1)$ = 480,000 tenge × 0.8929 = 428,592 tenge;
- legal registration – 45,000 tenge.
- registration of patent rights – 3500 tenge.

Total cost of an intangible asset: 2,200,000 + 428,592 + 45,000 + 3500 = 2,677,092 tenge.

2.3.Current practice of intangible assets accounting

In the Republic of Kazakhstan, the existence and flow of intangible assets is accounted on the basis of Section 2 "Long-Term Assets" Subsections 2700 "Intangible Assets", 2710 "Goodwill", 2720 "Goodwill Depreciation", 2730 "Other Intangible Assets", 2740 "Amortization of Other Intangible Assets", 2750 "Losses from the Depreciation of Other Intangible Assets" (Law of the Republic of Kazakhstan «On Accounting and Financial Reporting», 2007).

As intangible assets are created and acquired and work on bringing them to a state in which they can be used for their intended purposes is compete, intangible assets are documented with a delivery and acceptance certificate (form No. NMA-1).

The correspondence of accounts of typical operations under section 2700 "Intangible Assets" is presented in Table 3.

Table 3
Correspondence of accounts of typical operations under section 2700 "Intangible Assets

No.	**Operation**	**Correspondence of accounts**	
		Debit	Credit
1.	Purchase of intangible assets (with the exception of goodwill):		
1.1.	at the cost of issued imprest amounts		
	- for purchase cost	2730	1250
	- for the VAT amount	1420	1250
1.2.	In case of subsidiary, associated and joint organizations		
	- for purchase cost	2730	3320, 3330
	- for the VAT amount	1420	3320,3330

1.3.	In case of natural persons and organizations		
	- for purchase cost	2730	3390, 3310
	- for the VAT amount	1420	3390, 3310
2.	Non-repayable receipts of intangible assets (with the exception of goodwill) from natural persons and organizations	2730	6220
3.	Acquisition of intangible assets (with the exception of goodwill) as a contribution to an equity capital	2730	5110
4.	Recognition of intangible assets that were created (from research or the development stage of an in-house project) in said organization	2730	2940
5.	Recognition of intangible assets that were acquired from an executive body on a non-repayable basis as a subsidy at fair or face value	2730	6230
6.	Disclosure of positive goodwill	2710	3390
7.	Return of intangible assets that did not meet the requirements of delivery		
	- for purchase cost	3320, 3330, 3310	2730
	- for the VAT amount	3320, 3330, 3310	1420
8.	Deduction of the book value of intangible assets during disposal		
	- by the book value	7410	2730
	- by the amount of accumulated amortization	2740	2730
9.	Accrual of amortization for other intangible assets, attributed:		
9.1.	to the cost of unfinished construction	2930	2740
9.2.	to the sales of finished products (goods, works, services)	7110	2740
9.3.	to administrative expenditures	7210	2740
9.4.	currently leased	7450	2740
10.	Disclosure of the goodwill depreciation operation	7420	2720
11.	Deduction of amortization for disposed other intangible assets	2740	2730

12.	Deduction of goodwill at book value by the depreciation amount	2720	2710

It is expedient to analyze the process of documented accounting of intangible assets. According to the Law of the Republic of Kazakhstan «On Accounting and Financial Reporting» (2007) and the Model Business Accounting Plan (2002), all economic operations that an organization executes have to be documented in primary accounting records, on which the accounting is based.

In the list of accounting document forms, the Intangible Asset Accounting Card is an approved common design A5 form, which is used in accounting in regards to all types of intangible assets that an organization acquires for use.

The accounting department keeps such a card for each object due for accounting. The form is filled in in a single copy based on a document (act) for recognition, delivery and acceptance (transfer) of intangible assets and other documents. After the object is taken off the books and the accounting card is used for the last time, the card is stored for a period that is specified in the abovementioned law.

After an asset is registered, the following is written in the appropriate spaces:

- name (in short or encoded form) of the structural unit,
- type of its activity,
- account or subaccount number of synthetic accounting,
- analytic accounting code,
- initial book value, at which the asset is recognized,
- term of valued-added use,
- standard amortization or budgeted rate,
- amount of accrued amortization in tenge (the amount of amortization that is calculated on a monthly basis in accordance with standards that are estimated based on the initial cost and term of value-added use is written in the Amount of Accrued Amortization space),
- code of the account and object of analytic accounting for appropriation of the intangible asset amortization,
- asset registration date,
- mode of acquisition of the asset,
- name, number, and date of the document on the registration of the economic operation.

Synthetic accounting of intangible assets is disclosed based on Subsection 10 “Intangible Assets” of IAS 38. Analytic accounting is carried out using inventory accounting cards for intangible assets. The total turnover under Subsection 10 “Intangible Assets” is disclosed in ledger No. 12.

It is worth noting that during the preparation of annual reports for the company, data about intangible assets are disclosed in the following documents:

- in the company balance (form No. 1), the presence of intangible assets is disclosed in the “Intangible Assets” subsection. Data for the respective lines of the subsection are disclosed based on the residual value of intangible assets (with the exception of housing stock objects and intangible assets that are not subject to cost repayment under current regulations). At that, the breakdown of the composition of intangible assets is provided in the Accounting Supplement (form No. 5).
- in the “Intangible Assets” subsection of Certificate No. 3 “Amortized Property”, disclosed based on acquisition cost (see Table 4).

Table 4
Data about intangible assets

Clause	Content
Rights to intellectual (industrial) property	cost of rights that emerge from copyright or other contracts to scientific works, literary works, works of art and objects of related rights, databases, etc., from invention patents, industrial prototypes, collectors' achievements, utility model certificates, trademarks and service marks or license agreements for their use, rights to know-how, etc.
Rights to the use of isolated natural objects	cost of rights to the use of land plots and natural resources (water, mineral resources, etc.)
Organizational costs	amount of expenses related to the establishment of a legal entity, which is recognized as a contribution of participants (founders) to the equity (stock) capital in accordance with the instruments of incorporation
General business expenses	expenses born by the organization, which emerge during its functioning due to the need to redraft instruments of incorporation or other documents (expansion of the organization, changes in its type of activity, provision of authorized signatures of officials, etc.), manufacturing of new stamps, seals, etc.
Business reputation of the organization	excess of the acquisition cost of privatized property over its assessed (initial) cost

3. Conclusions

To sum up, the evaluation of intellectual capital should be considered as a basis for the future growth of the companies. The government of the Republic of Kazakhstan should to take measures aimed at facilitating the reporting process of organizations' investment in intellectual capital.

The application of theValue Added Intellectual Coefficient method was described. The peculiarities of implementation of IAS 38 in the Republic of Kazakhstan were examined. Moreover, the authors provided a comparison of the current methodologies of assessment and management of intangible assets.

The current practice of intangible assets accounting in the Republic of Kazakhstan was analyzed: a correspondence of accounts and the process of documented accounting of intangible assets (synthetic and analytic) were presented.

Finally, the formation of competitive intellectual capital is regarded as one of the most important goals of development of the Republic of Kazakhstan during the construction of an innovative economy.

Unfortunately, there is little information about changes in intellectual capital reporting over time. This research provides a basis for further research regarding intellectual capital in both academia and practice.

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1. Finance Department, L.N.Gumilyov Eurasian National University, Astana, Kazakhstan. E-mail: kerimbek2009@mail.ru

2. Accounting and Audit Department, South Kazakhstan State University named after M. Auezov, Shymkent, Kazakhstan. E-mail: satymbekova72@mail.ru

3. Accounting and Audit Department, Aktubin State University named after K. Zhubanov, Aktobe, Kazakhstan. E-mail: utegen_z_78@mail.ru

4. South Kazakhstan Humanitarian Institute name of M.Saparbaev, Shymkent, Kazakhstan. E-mail: ms.zhamilya@mail.ru

5. Accounting and Audit Department, South Kazakhstan State University named after M. Auezov, Shymkent, Kazakhstan. E-mail: S_Zhakipbekov@rambler.ru

6. Accounting and Audit Department, South Kazakhstan State University named after M. Auezov, Shymkent, Kazakhstan. E-mail: turebaevaz@mail.ru

7. Accounting and Audit Department,L.N.Gumilyov Eurasian National University, Astana, Kazakhstan. E-mail: bahyt_jumataeva@mail.ru

8. Finance Department, JSC «Finance Academy», Astana, Kazakhstan. E-mail: akilbeki.ilias@mail.ru

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