

## **Investigation of Application Levels of International Accounting Standards of Industrial Enterprises in Turkey**

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**Abstract:** In outer financial topics, sharp intersections has been faced industrial enterprises very often due to global crises and their effects. With the effects of global competition, industrial enterprises have to understand IFRS (International Financial Reporting Standards) applications which forms their accounting legs for the activities of internationalization of accounting in very short time and accelerated their adaptation to these standards. Standards composed of eight of current IFRS which accepted 41 IAS (International Accounting Standards) as references and their explanations as a whole has been accepted as the expression of internationalization in accounting. With the application of all standards that accepted by IASB (International Accounting Standards Board), industrial enterprises especially enterprises that already offered their shares to public were expected to save the rights of share holders and enlighten them. It is obvious that financial reports will be approach to ideal about transparency and giving right information by reflecting the truth, clarification perspectives. Integration to international accounting standards which were used to expressing their financial situation as a common language by industrial enterprises in global medium will be an important factor in obtaining sources from financial market and repetition and international commercial of the firms. In this study, compatibility degrees to IFRS and IAS of 500 industrial enterprises and if there is a statistically significant compatibility degree difference among enterprises with and without foreign partners in Turkey were tested. For conclusion adaptation levels of industrial enterprises considering intensiveness at fair level, at partly good level, at slightly bad level.

**Key words:** IFRS, IAS, Turkey's top 500 industrial enterprises, compatibility level, Turkey

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### **INTRODUCTION**

Enterprises mainly multinational enterprises have been faced different and partially contradictory national standards. Therefore, it is important to coherent of all standards in terms of firm along with the other units (Van Der Tas, 1988).

It has been a good improvement on previous trends moving to simple accounting standards like FASB (Financial Accounting Standards Board in England) and IASB (International Accounting Standards Board in United State). Both previously published different standards but reached an agreement by clearly expressing their commitment to reach an agreement on the United State standards (USGAAP) and international accounting standards (IAS/IFRS) which will be concluded on the signing of the Norwalk Treaty.

Some modifications has been made according to IFRS based on Declaration of Capital Market Accounting Standards which was later become a mandatory startin 1 January 2005 for he firms in Turkish share as well as

91 country in Turkey (Aysan, 2007). International coherence in financial tables is very important for sides who has been using these data. Thus confidence level of these tables shows the deepness of details of the financial data and transparency of country (Shalin and Roger, 2004).

In many researches, the importance of adoption to IFRS and IAS in order to provide transparency and full information functions of financial tables about credit costs based on the risk has been mentioned (Doyrangol and Muge, 2006; IASB, 2009; Casu, 2006; Tiskens, 2003).

Credit organizations used the financial tables of the firms will use grading value which was provided by independent grading companies based on Basel II in giving credits to firms. One of the factors effecting grading level is preparing financial reports based on the international accounting rules.

Enterprises will be evaluated with respect to measurements such as financial tables, financial reports period, local administrative applications and sectorial analysis by grading firms. According to determined

results each firm will have a grade and card. These grades will be the major factor in the evaluation of a firm to get credits and the rate of the interest. If the grade is low banks will not be volunteer to give credits to these firms. Since such kind of credit required much more capital to be hold by the bank.

The aim of IFRS applications is increasing the quality of the information by financial tables. However sometimes using application of high quality standards to get high quality information may not be enough (Ray, 2000).

The aim of this study, compatibility degrees to IFRS and IAS of 500 industrial enterprises and if there is a statistically significant compatibility degree difference among enterprises with and without foreign partners in Turkey were tested. The subject of the study is composed of the 500 industrial enterprises listed by Istanbul Chamber of Industry in 2007. Questionnaires were answered by general managers or vice managers during the study.

## **MATERIALS AND METHODS**

**Process of sampling:** Full count sampling method was used since there were 12 different activity kinds among the industrial enterprises. A total of 316 questionnaire was subjected to statistical analyzes and the others were discarded due to incomplement or disinformation in filling out of the questionnaires. It was determined that there were 128 and 188 enterprises with and without foreign partners, respectively. All determined data were analyzed by SPSS 13.0 statistical software.

**Preliminary study:** Prior to preparation of questionnaires and collecting the data, advices and suggestion of famous researches in the subject of accounting and statistics were gotten and to the experiences of representators of international rating agencies were also applied.

**Methods and tools for the data collection:** Questionnaires were succesfully handled to 500 firm authorities either by hand or via e-mail.

In order to collect financial data reference letters of Istanbul Chamber of Commerce and Chambers of Industry and Commerce of Bursa and Kayseri, Industry and Commerce City Directorates, Ataturk University Institue of Social Science were used. At the last stage of the study, an agreement was made by a commercial survey company in order to present results much more effectively then the collected data with the confirmation of the authorities from the enterprises were subject to analyes. The questionnaire was contained 2 sections; the first

section included the questions about the descriptive information of surveyed enterprises and the second part was about the compatibility degree to IFRS and IAS of the enterprises. Reliability tests of the questionnaires were done and the results were found highly trustable with an alpha value of 0.8122.

In order to analyze the results, arithmetical means, standard devaiatons were used, frequencies and percentages descriptive information was determined, finally compatibility differences based on having foreign partners or not were analyzed.

**Hypotheses of the study:** Research hypoteses were decided as followed considering the purpose and model of the study.

**H<sub>1</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 2a.

**H<sub>2</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 2b.

**H<sub>3</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 3.

**H<sub>4</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 5.

**H<sub>5</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 7.

**H<sub>6</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IFRS 8.

**H<sub>7</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IAS 1a.

**H<sub>8</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IAS 2a.

**H<sub>9</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IAS 7.

**H<sub>10</sub>:** There are significant differences between enterprises with and without foreign partners with respect to compatibility to IAS 11.

**RESULTS AND DISCUSSION**

**Demographical information of research sample:** Regions, activity branch, number of worker, sector, type of enterprise, exporting capacity, state of foreign partnership and state of using international finance from industrial enterprises answered the inquiries were shown in Table 1. It was determined that 128 (40.5%) of the surveyed enterprises had foreign partner and 188 (59.5%) of them did not.

**Analysis of enterprises compatibility levels to IFRS and IAS:** As shown in Table 2, minimum arithmetic mean showing compatibility level of industrial enterprises to IFRS and IAS was found as 2.28 and maximum arithmetic mean was 4.30. Evaluation of compatibility levels by using arithmetic means and standard deviations are as:

Adaptation space	Adaptation level	No. of firm	Evaluation
1.00-1.49	None	0	Worst
1.50-2.49	Rarely	2	Bad
2.50-3.49	Occasionally	22	Fair
3.50-4.49	Mostly	6	Good
4.50-5.00	Always	0	Best

Table 1: Demographical information of surveyed industrial enterprises

Factors	Frequency	Percentage	Factors	Frequency	Percentage
<b>Regions</b>			<b>Number of worker</b>		
Mediterranean	3	0.9	1-1000	177	56.0
Eastern anatolia	-	-	1001-2500	101	32.0
Aegean	11	3.5	2501-5000	31	9.8
Southeastern anatolia	2	0.6	5001-1000	5	1.6
Central anatolia	24	7.6	10001 ve uzeri	2	0.6
Blacksea	4	1.3	<b>Sector</b>		
Marmara	272	86.1	Public	54	17.1
<b>Activity branch</b>			Private	230	72.8
Mining and rock stoking	3	0.9	Mixed	32	10.1
Food, drink and tobacco industry	44	13.9	<b>Type of firm</b>		
Weaving, clothing thing	40	12.7	Stock exchanged company	113	35.8
skin and shoe industry			Stock company	134	42.4
Forest products and	9	2.8	Limited liability company	37	11.7
furniture industry			Other	32	10.1
Paper product and	12	3.8	<b>Exporting capacity</b>		
press industry			None	102	32.3
Chemistry, oil products	47	14.9	<50%	164	51.9
rubber and plastic industry			Exporting intensive	50	15.8
Leaning rock and soil industry	23	7.3	<b>Foreign partner condition</b>		
Metal main industry	53	16.8	Yes	128	40.5
Metal things, machine and apparatus	43	13.6	No	188	59.5
vocational equipment industry			<b>International financing using condition</b>		
Conveyance equipment industry	31	9.8	Yes	190	60.1
Others manufacturing industry	4	1.3	No	126	39.9
Electric industry	7	2.2			

Table 2: Arithmetic means and standard deviations of adoption levels of industrial enterprises to IFRS and IAS

Accounting standards	Arithmetic mean*	SD
IFRS 2a; All share-based payment transactions must be recognised in the financial statements using a fair value measurement basis	3.3481	1.4882
IFRS 2b; For transactions with employees and others providing similar service, the entity to measure the fair value of the equity instruments granted because it is typically not possible to estimate reliably the fair value of employee services received	2.9399	1.5304
IFRS 3; Purchase method is used for all business combinations. The uniting (pooling) of interests method is prohibited	2.6203	1.3362
IFRS 5; Non-current assets or disposal groups held for sale are measured at the lower of carrying amount and fair value less costs to sell	3.1203	1.5007
IFRS 7; To prescribe disclosures that enable financial statement users to evaluate the significance of financial instruments to an entity. The nature and extent of their risks and how the entity manages those risks	2.7057	1.5752
IFRS 8; Analyses of revenues and certain non-current assets by geographical area are required from all entities with an expanded requirement to disclose revenues/assets by individual foreign country (if material), irrespective of the entity's organisation	3.6772	1.4332
IAS 1a; Comparative prior-period information must be presented for amounts shown in the financial statements and notes	3.1741	1.5567
IAS 1b; Current/non-current distinction for assets and liabilities is normally required. In general, post-balance sheet events are not considered in classifying items as current or non-current	2.9810	1.4820
IAS 1c; Detailed income sheets covers any kinds of input and output items	4.0190	1.1267
IAS 2a; Inventories are required to be stated at the lower of cost and Net Realisable Value (NRV)	2.7690	1.5917
IAS 2b; For interchangeable items, cost is determined on either a FIFO or weighted average basis	3.4684	1.2014
IAS 2c; When inventories are sold, the carrying amount should be recognised as an expense in the period in which the related revenue is recognised	3.2089	1.8031
IAS 7; Cash flows from operating, investing and financing activities must be separately reported	2.9873	1.6407

Table 2: Continued

Accounting standard	Arithmetic mean*	SD
IAS 8; Management may also consider the most recent pronouncements of other standardsetting bodies that use a similar conceptual framework to develop accounting standards, other accounting literature and accepted industry practices	3.2563	1.4824
IAS 10; Adjust the financial statements to reflect those events that provide evidence of conditions that existed at the balance sheet date	3.0538	1.2006
IAS 11; Where the outcome of a construction contract can be estimated reliably, revenue and costs should be recognised by reference to the stage of completion of contract activity (the percentage of completion method of accounting)	3.2405	1.8115
IAS 12; Deferred tax liabilities must be recognised for the future tax consequences of all taxable temporary differences with three exceptions	3.2468	1.3004
IAS 16; Components of an asset with differing patterns of benefits must be depreciated separately	3.5601	1.6521
IAS 17b; The lessee as a reduction of rental income and expense, respectively, over the lease term	2.6424	1.5902
IAS 18a; From sale of services: percentage of completion method	2.9652	1.4634
IAS 18b; As a part of sale process, prize scores given to customers are accountized as separate descriptive item of selling process	2.5000	1.4981
IAS 19; Underlying principle: the cost of providing employee benefits period in which the entity receives services from the employe, rather than when the benefits are paid or payable	4.3070	1.1144
IAS 20; Grants should not be credited directly to equity but should be recognised in profit or loss over the periods necessary to match them with the related costs	3.0348	1.3831
IAS 28; Requirement for impairment testing in Accordance with IAS 36	3.1582	1.5369
IAS 32; Based on substance, not form of the instrument	2.4557	1.4631
IAS 34; Change in accounting policy-restate previously reported interim periods	3.5981	1.4208
IAS 36; Impairment loss to be recognised when the carrying amount of an asset exceeds its recoverable amount	2.2816	1.3474
IAS 38; All research costs are charged to expense when incurred capitalised only after technical and commercial feasibility of the resulting product or service have been established	3.7532	1.3029
IAS 39; Financial instruments are initially measured at fair value on date of acquisition or issue. Usually this is the same as cost but sometimes an adjustment is required	2.7342	1.4967

\*1:Worst 5; Best; IFRS: International Financial Reporting Standard; IAS: International Accounting Standard

Table 3: The results of t-test

Standards	t	df	p-value	Enterprises with foreign partner		Enterprises without foreign partner	
				Arithmetic mean	SD	Arithmetic mean	SD
IFRS 2a	-1.587	314	0.953	3.1875	1.4835	3.4574	1.48551
IFRS 2b	-1.146	314	0.641	2.8203	1.5237	3.0213	1.53378
IFRS 3	0.223	314	0.001	2.6406	1.2019	2.6064	1.42340
IFRS 5	4.200	314	0.009	3.5391	1.3393	2.8351	1.54069
IFRS 7	-3.581	314	0.856	2.3281	1.5323	2.9628	1.55598
IFRS 8	2.361	314	0.038	3.9063	1.3306	3.5213	1.48236
IAS 1a	2.201	314	0.000	3.4063	1.3365	3.1060	1.67548
IAS 1b	-4.934	314	0.858	2.5000	1.4363	3.3085	1.42571
IAS 1c	1.896	314	0.185	4.1641	1.0331	3.9202	1.17869
IAS 2a	1.921	314	0.015	2.9766	1.4872	2.6277	1.64810
IAS 2b	-2.300	314	0.166	3.2813	1.2162	3.5957	1.17750
IAS 2c	-3.948	314	0.017	2.7344	1.8464	3.5319	1.70374
IAS 7	1.443	314	0.003	3.1484	1.5219	2.8777	1.71216
IAS 8	-2.878	314	0.932	2.9688	1.4738	3.4521	1.45993
IAS 10	-2.589	314	0.923	2.8438	1.2065	3.1968	1.17850
IAS 11	5.144	314	0.000	3.8516	1.6366	2.8245	1.81085
IAS 12	-1.911	314	0.061	3.0781	1.2334	3.3617	1.33526
IAS 16	1.550	314	0.002	3.7344	1.5496	3.4415	1.71242
IAS 17a	-2.916	314	0.484	2.5781	1.4827	2.9521	1.48894
IAS 17b	1.427	314	0.638	2.7969	1.5691	2.5372	1.60003
IAS 18a	-3.552	314	0.042	2.6172	1.4854	3.2021	1.40343
IAS 18b	-1.765	314	0.000	2.3203	1.1700	2.6223	1.67745
IAS 19	3.420	314	0.000	4.5625	0.9618	4.1330	1.17841
IAS 20	1.123	314	0.002	3.1406	1.2406	2.9628	1.47118
IAS 28	3.391	314	0.702	3.5078	1.4795	2.9202	1.53359
IAS 32	-0.887	314	0.000	2.3672	1.2478	2.5160	1.59369
IAS 34	1.735	314	0.085	3.7656	1.4113	3.4840	1.41978
IAS 36	-1.969	314	0.553	2.1016	1.3622	2.4043	1.32697
IAS 38	-1.890	314	0.000	3.5859	1.4555	3.8670	1.17841
IAS 39	0.844	314	0.012	2.8203	1.3656	2.6755	1.58064

According to this evaluation adoption levels of industrial enterprises considering intensiveness: at fair level (22 standard), at partly good level (6 standard), at slightly bad level (2 standard).

**Determination of compatibility level differences between enterprises with or without foreign partners:** The data were subject to t-test in order to determine if there is a statistically significant difference between compatibility

degree of enterprises with and without foreign partners to IFRS and IAS. Arithmetical means, standard deviations and t values from the statistical analyzes are shown in Table 3.

In this case; H<sub>3</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>7</sub>, H<sub>8</sub>, H<sub>9</sub> and H<sub>10</sub>, hypotheses were accepted. With respect to compatibility abilities to IFRS and IAS mentioned hypotheses, there were significant (p<0.05) differences between the enterprises with and without foreign partners.

H<sub>1</sub>, H<sub>2</sub>, ve H<sub>5</sub> hypotheses were rejected means that there were no significant differences between enterprises with and without foreign partners with respect to the IFRS and IAS content of these hypotheses.

### **CONCLUSION**

Following results were determined from the present study that aimed to determine the adoption levels of 500 industrial firms chosen by Istanbul Chamber of Industry as for the year of 2007 to IFRS and IAS. Adoption level of industrial enterprises to IAS and IFRS based on density were at fair level, good level and at bad level took a small part.

Among the industrial the firms successfully involved the survey and had foreign partners were significantly different at 70% rate than the ones without foreign partners with respect to adoption level.

### **RECOMMENDATIONS**

Considering the findings of the present study, the following suggestions can be made: In order to improve the adoption level of firms, individuals employed in accounting must be trained for international accounting standards. Firms must be tried to benefit from experienced enterprises with foreign partner that differ significantly from themselves.

Accounting standards subjects must be included in accounting education curriculum in undergraduate, graduate levels. Another problem solving way would be the more focusing and guidance on the IFRS and IAS applications by academical staff. Thus the relationships and ties must be strenghtened between the firms and the industrial institutes with consultancy.

### **REFERENCES**

- Aysan, M., 2007. Uluslararası finansal raporlama standartları ve küresel uyum. Muhasebe ve Finansman, Nisan, pp: 51-54. [http://www.mufad.org/index.php?option=com\\_content&task=view&id=123&Itemid=41](http://www.mufad.org/index.php?option=com_content&task=view&id=123&Itemid=41).
- Casu, B., C. Girardone and P. Molyneux, 2006. Introduction to Banking. Vol. 10, Prentice Hall Financial Times, England, ISBN-13: 9780273693024.
- Doyrangol, N.C. and S. Muge, 2006. Muhasebeci gozule basel II. Mali Cozum Ozel Sayı, 76: 353-366.
- IASB, 2009. IFRSs around the world. International Accounting Standards Committee Foundation. <http://archive.iasb.org.uk/about/ifrsworld.asp>.
- Ray, B., S.P. Kothari and A. Robin, 2000. The effect of International Institutional factors on properties of accounting earnings. J. Accounting Econ., 29: 1-51.
- Shalin, C. and W. Roger, 2004. An empirical assessment of gray's accounting value constructs. Int. J. Accounting, 39: 125-129.
- Tiskens, C., 2003. Basel II and consequences for SMEs. Workshop of European Parliament, July 10, 2003. [http://www.europarl.europa.eu/stoa/archive/works\\_hops/20030710/default\\_en.htm](http://www.europarl.europa.eu/stoa/archive/works_hops/20030710/default_en.htm).
- Van der Tas, L., 1988. Measuring harmonisation of financial reporting practice. Accounting Bus. Res., 18: 157-169.