

## Virtualization of financial reporting

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**Abstract.** The article explores the issue of virtualization of financial reporting. The article argues for special financial reporting rules adequate for entities involved in the virtual economy. The article provides definition for virtual financial reporting, sets its targets and proposes relevant framework.

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### Introduction

In the end of XX century / early XXI century the world is experiencing accelerated virtualization of economy. There are various definition of virtual economy with both positive and negative flavor. At the same time the virtualization is already a generally accepted phenomenon not only for economy, but also for the society as a whole. The virtual economy reaches practically all World by means of the Internet. Having emerged from traditional economy the virtual economy has grown through it and by now has even outgrown it. From World history standpoint, this process has been almost instantaneous. Doubtlessly in the foreseeable future the virtual economy will keep growing. Financial reporting implications of this rapid development of virtual economy require a careful and thorough examination.

The principal function of financial reporting is to present as accurately as possible the actual financial position and results of operations of a reporting entity, i.e. to disclose the entity's economic situation. Since almost all entities present their financial reports, financial reports disclose not only economic situation of the reporting entity, but also economic situation of the economy as a whole for a country, region and the World.

In order to ensure true and fair presentation of processes, conditions or events, one needs to possess: (1) in-depth knowledge of these processes, conditions or events, and (2) knowledge of relevant reporting methods. In this case it takes both the understanding of the virtual economy and knowledge of relevant applicable accounting methods.

Let us start by examining knowledge of virtual economy for the purposes of reporting. Virtual economy differs considerably from traditional economy, for which accounting principals were originally developed in early XX century in English-

speaking countries. The following summary introduces most notable features of virtual economy (from financial reporting standpoint) as mentioned in scientific literature (with our notes):

### Geography

Traditional Economy (TE): economy of region, area, country – local market.

Virtual Economy (VE): the whole world by means of internet – global market.

### Structural

TE: sectors of economy of a country

VE: specialized segments and subsegments, representing transformed sector of traditional economy

### Resources

TE: tangible assets – materials, products, property, plant and equipment

VE: intangible assets – data, information, data processing technologies, analytical methods.

### Technology

TE: Sales are made through brick & mortar shops, promotion is made by commercials on TV, radio, call centers, faxes; there are customs and logistics obstacles.

VE: Sales are made through virtual shops, internet based auctions, promotion – through internet, mobile networks, there are no logistics, language and other obstacles.

### Bargaining power: Seller/buyer powers balance

TE: buyer can obtain almost all necessary information – by personal physical inspection of quality, composition, presentation. The market is considers symmetrical or a little buyer-biased.

VE: The buyer possesses indisputable advantage with superior knowledge of product properties [1]. The market is unsymmetrical – seller biased.

### Bargaining power compensation

TE: not many opportunities for buyer to obtain relevant information regarding the product from other buyers – the choice of potential sellers is limited. It is difficult and time-consuming to search for relevant information on the sellers.

VE: many opportunities to obtain information on the product from previous buyers [2,3]. Almost unlimited choice of sellers – the choice can be made instantaneously, irrespective of seller's location, legal residence, experience and other properties.

#### **Level of competition**

TE: reduced competition (subdued completion between both buyers and sellers)

VE: advanced competition (merciless competition among sellers, buyers and vendors).

#### **Merchandise**

TE: most common products – tangible assets.

VE: most common and desired products – information technologies, intellectual systems.

#### **Settlements**

TE: Cash settlements

VE: non-cash settlements – virtual currencies (bitcoin)

In addition we can mention differences in risk profiles of traditional and virtual economies. Besides the risks which traditionally accompany economic activities in XX century, the virtual economy gave raise to new types of risks. The most notable risks are listed in table #1, which also provides reporting implications:

**Table #1. Virtual economy risks and financial reporting implications**

| <b>Risk</b>  | <b>Risk reduction measures for virtual economy companies</b>   | <b>Suggested financial reporting measures for risk reduction</b>  |
|--|--|---|
| Unbalanced supply and demand, i.e. asymmetry.  | Disclosure by sellers for buyers of additional product information: product advantages, disadvantages, benefits, etc.  | Financial Reporting should provide additional information on the quality of the product. Special attention should be paid for credibility: e.g. additional statistics on timely execution of all liabilities, information on entity's efficiency and future forecasts.  |
|  | Search engines promotion not only for brand name of enterprise (service or product), but also promotion of company's web site.   | An entity should report on popularity of its web site: number of visitors, its ranking with search engines and other rating sites.  |
|  | Availability of guarantees, which confirms soundness of enterprise. Third party guarantees evidence the enterprise's viability.  | Specific disclosure of expenses related to guarantees by third parties.   |
|  | Extensive use of local segments of internet or local networks can reduce uncertainty. Local market imbalances are mended by its specifics allow to use various approaches to analyze its conjuncture.  | Description of local market contributes to better user's comprehension and credibility of financial reporting.  |
| Risk of monopolization of information sources  | Struggle against monopolization of economy.  | Special attention should be paid for consolidation rules. Today IFRS emphasizes priority of principal of substance over legal form. In Russia, it is necessary to increase the scope of entities for which consolidated reporting (like under IFRS rules) is mandatory.   |
| Risk of unauthorized access by third parties to entity's information systems.        | Various access protection mechanisms.  | In our opinion, increase in reporting transparency is the best way to deal with the risk of unauthorized access. [4, 5]. On one hand, an entity must protect its confidential information, which is stored in accounting systems and is often used for the purposes of reporting, on the other hand, reporting standards aim to diminish confidentiality in reporting. For example, IFRS 8 [6], IFRS 10 [7], IFRS 13 [8]. |
| Risk of virtual currency high volatility   | Reduction of virtual currency volatility   | In the case, if volatility of virtual currency exchange rates is decreased, virtual currency can be used a functional currency and reporting currency.  |
| Risk of anonymity of virtual currency  | All agents supporting settlements in virtual currency must be obtain relevant financial license. They must report all suspicious transactions. In general anonymity for virtual currency transactions should be abandoned.                   | Additional disclosures are necessary for cases when virtual currency is used as a functional and reporting currency.  |
| Risk of distrust of users to virtual economy due to financial crises of XXI century. | Continued search for reliable indicators of pre-crises economic conditions, development of preventive measure, development of anti-crises economic policies, increase of transparency for economy, society, anti-corruption measures [4, 5]. | Multiple measures to increase users' trust in financial (virtual) reporting are required, including improvement of reporting rules [9].   |

Emergence and proliferation of virtual economy must be addressed by corresponding amendments in traditional financial reporting framework. We believe that modern financial reporting should and must be referred to as 'virtual'. The Virtual financial reporting formed in the end of XXI century, which primarily was the result of changes in reporting conceptual framework and reporting rules. Following are examples where virtual reporting differs from traditional reporting: abandonment of historical accounting practices and wide-spread use of fair value accounting. This transformation is gradual and currently both approaches are in use simultaneously [10]. Unlike historical accounting Fair value accounting allows for recognition of unrealized gains: financial result of operation for the period includes both unrealized gains and unrealized losses.

Abandonment of historical accounting results in automatic rejection of matching principle for revenues and expenses and automatic rejection of prudence principle. New IFRS framework does not even mention these accounting principles. In essence the new framework attempts to present a 'real view on the virtual economy' (even though it is not named as such, in our opinion, this objective can be found in all new accounting concepts).

Abandonment of historical accounting significantly increase reporting risks. And this perfectly resonates with the fact that virtual economy risks are greater than that of traditional economy. As a result we observe: constant tread towards greater disclosures with corresponding reduction of 'blind', confidential zone (as was mentioned above), for example considers changes introduced by IFRS 8 [6], IAS 24 [11].

Increased attention to consolidated reports, i.e. attention to 'hidden' entities, which become transparent in consolidated reporting.

We believe that reporting 'virtualization' is necessary and will keep on progressing, following the need to conform to the virtual economy.

We suggest the following goal for the virtual reporting: 'to ensure high-quality information support for the users, which enable potential opportunity to take quality decisions in the environment of virtual economy'.

We conclude by suggesting further virtualization steps for modern financial reporting in the light of the above-mentioned goal:

#### Reporting periods

A mandatory requirement for monthly reports (alone with quarter and annual reports) should be introduced (greater frequency may be achieved at owners/management discretion). Reporting standards should be developed for each type of reporting

frequency, which would set mandatory composition of statements and disclosures for each reporting period. There are no major obstacles for monthly reporting, even with audit opinion. Monthly audit procedures could be carried out remotely, which complies with the 'virtual' status of the economy.

Publication.

Introduction of mandatory publication on the Internet on the entity's web site, or for an entity, which is a part of consolidated group - disclosure of web address for the parent company, where the consolidated report is published, distribution of the Report by email for registered subscribers.

#### Reporting types

Stand-alone, consolidated, joint (other types are possible, e.g. integrated).

#### Valuation methods

With partial use of fair value (in accordance with currently valid IFRS) or with fully fair value reporting.

#### Composition

Mandatory requirement for a Statements on Risks, Disclosure on Guarantees, introduction of additional disclosure requirements following the feature of the virtual economy.

#### Asset recognition

Certain expenditure related to sales, promotion, web site development and maintenance, customer help support and customer relations management, etc. could be recognized as assets.

#### Audit

Audit also needs revision and adaptation for the virtual economy and virtual reporting. Most of the audit procedures must be carried out remotely, which require corresponding changes in the Auditing Standards. The new audit standards should require verification of additional information with the use of modern verification methods.

#### **Conclusion**

In XXI century a new economy emerges – virtual economy

The virtual economy requires a new 'virtual' reporting. The new virtual reporting could be effective only if the virtual economy is thoroughly studied.

The 'virtualization' of financial reporting is already happening and will continue to evolve in the foreseeable future. 'Virtualization' dictates the need for changes in many fundamental accounting concepts. New reporting methods should be developed.

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