

Asset Realization in Procuring Software Services

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I. Background

The digital economy has provided opportunities for businesses to conduct transactions electronically, and without the essential needs of pen and paper for critical business activities such as book-keeping of accounting transactions. With a client-server architecture, the opportunities to have a centralized database for all occurring transactions of a business, at different branches and geographic locations, on a real-time basis, has indeed cut the processing time and costs for such activities with immense business benefits.

Such benefits, that are provided to the business by digitalization, provides a source of further business improvements, in terms of efficiency, new products and services and employing better resources for the business itself. Hence, whilst a business may look forward to savings in time and costs by implementing a digital system for its business, such savings can then be better directed to upgrading existing assets, including training its existing human resources and investing in research and development that would enable the business to align better and further with the digital economy.

Hence, investment into a digital business system, is a two-way benefit, firstly, in gaining efficiency with current practices, and secondly, to incur financial benefits, that would complete the circular economy by providing an improved and aligned digital product and service for the business and its economic markets. So, as a business implements a digital business system, and incurs costs for its implementation, it can simultaneously become more innovative and invest in such digital products and services that the business may not have provided prior to such digital abilities. Otherwise, if implementing a digital solution would only entail an expense over existing status quo of business practices and the respective products and services, then the business would have no real incentive to implement such digital solutions, as it would only be an added cost without any further advantages or return on such investments.

So, a business by undertaking activities such as installing an accounting software, that maybe to a certain extent based on the internet, undertakes a step towards digitalization of its business activities, and implicitly avails further opportunities in the digital economy - whilst sourcing funds from efficiency gains in addressing previous manual methods replaced by such digital processes. Hence, a fair expectation of businesses is that the step towards digitalization is enabled by having core business accounting systems in a digital format, including being on the internet, that would then bring further financial and economic developments, including and limited to investing from such savings into new product and services development, and further activities alignment to the digital economy. Certainly, a business would hope that such efficiency gains are realized as assets at all

stages of such a transformation. Indeed, such ‘Digital Assets’ at their creation, have to be appropriately identified and accounted for, in an efficient business.

II. Business Software Services

A Business Software service is mainly employed as a core effort to digitalize existing business practices. Whilst initially, such business softwares were mainly developed in-house, where business analysts and computer programmers were employed to develop technical requirements documents and then to produce the working technology, gradually, the concept of such in-house developed software was starting to be replaced by third-party provided services.

Enterprise Resource Planning softwares were gradually developed and given the market to provide such third party services for business transactions. When a business uses any ERP solution, it indeed has to undertake certain amount of 'configuration' that may range from setting a few flags in the software through to more complex developments as in customizing the off-the-shelf software for its particular requirements, that may not be currently provided in the procured software. Customization may require developing further end-user screens and background processes that is essential for the business. As specific jurisdictions have particular requirements for certain financial accounting transactions, and that such requirements are constantly evolving due to regulations and market conditions, seldom a business who procures such an off-the-shelf ERP system, would find that the product is already compliant with its specific regulatory and business practice requirements, and needs no further modifications at all, whether be for regulatory implications or specific business practices.

When a business procures such a software, there is also a requirement for the business to understand and apply the setup and flag mechanism of the software for its particular practices. Indeed, the business has to now interact with the business software in a way that is effective and efficient with the provided software features and offerings. Also, a business may well need to change and adapt certain business practices to fit-in with the software service, as otherwise, such a business system may not be workable at all.

Hence, over time, the procured off-the-shelf business system, with its added modifications and business requirement upgrades, would often become indistinguishable from an in-house software system, that may have been developed with the business employing its own sets of analysts and computer programmers. As the software starts to 'know' the individual business practice and the business reciprocates by adopting the available features and offerings, whether the business had originally procured an off-the-shelf software or developed its own in-house asset, certainly becomes dissolved over time. Further, it is not expected that any two businesses that had implemented a business software service at the same time, would have exactly the same state of the software, after an extended use of the software for its business, due to differentiated products and services, financial elements, regulative interpretations, competition and other economic factors that would

affect the respective businesses individually, requiring such an individual customization of its core business systems.

III. Categories of SaaS

Whilst ERP Systems was a latest trend for business systems till a few years ago, today, with the advent of Internet-of-Things, the concept of a stand alone ERP System, is replaced by a connected business system with such future oriented Internet-of-Things stature.

In the concept of Internet-of-Things, all things of individuals and businesses are conceptualized to be connected to the Internet. ERP and business systems are no exceptions, and indeed, with some of the latest versions of ERP Systems, the procured system may not actually function as expected, unless it is connected to the Internet at all times. Whilst this introduces several cybersecurity risks, but that the software itself is always on the Internet and undertaking vital transactions for the business, is a choice that the business takes by adequate consideration of its operational risks.

However, the range of Software as a Service (SaaS) business software that are available to businesses are spread from buying specific ERP softwares that have limited connection to the Internet, possibly only to download critical upgrades, through to softwares that are completely resident on the Internet and requiring the business to transact all activities through the Internet. Indeed, the growing trend has been for previous ERP vendors to up-sell their software as an Internet-of-Things solution, such that it may better connect with the future customer, and require that the business have its critical business operations exposed to such opportuned risks.

So, a SaaS Service maybe correlated with its exposure requirements to the Internet and ranked on a scale of 1 to 100, where 1 may mean that it seldom requires an Internet connection to work, through to 100 where it is critical for the business system to be connected to the Internet, failing which the software would not function as required.

Internet Exposure Requirement Index

1.....100

1 : Limited or No Internet Connection Required

100 : Internet Connection Critical

Whilst a common mis-conception about SaaS is that it only categorizes softwares that are resident on the Internet and have to be accessed through a proprietary web address or Universal Resource

Locator (URL), however, that most ERP Systems are currently developed to be accessed through the Internet and have specific URLs and address locators for its services, cross-qualifies such previously developed ERP systems, as SaaS services as well.

Hence, a generic and contemporary definition of SaaS would include even such ERP systems, who have any dependency on the Internet to provide any of its functionalities. As seldom, any such ERP systems would be scarce where any connection to the Internet is not required, ERP systems would be intrinsically qualified as a SaaS software, however with a varying degree of Internet connection requirements. As implementing and keep running ERP business systems is a major expense for a company, to appropriately and adequately account for its implementation and running expenses, becomes a critical question for IFRS accounting standards, including inheriting Internet requirements by virtue of upgrading to a SaaS software for any business activity that previously did not have any such dependency for its undertaking.

IV. The Expensing Issue Raised

The particular issue raised for this project is whether and how to allocate an expense as a business transaction, when the business incurs costs to implement a SaaS solution.

Here, the condition assumption is that the business is procuring an off-the-shelf product, that is already ready and catered for its particular business, and only needs to set a few flags to get the software setup and working for its business requirements. The condition explained raises the concern of how a business should allocate the expense as any asset acquired, if the associated functionality is only to configure the already available and working software for its own business purposes.

Indeed, for this issue, the particular expense-asset ratio would depend on the degree to which the procured software requires Internet Connection for its to function and continue to provide its core functionalities for business. Also, a reliable asset can be established if the asset meets the particular and specific market requirements for the business, without any further customization requirements at all.

So, the expense could be credited as an Asset, depending on the ratio of combination of the two factors :

- a. Intensity of Internet Connection Requirement
- b. Amount of Further Customization Required

Indeed, if a SaaS is completely on the Internet and a business easily implements its business on this software with some minor setting of flags etc., then the business system asset is more a creation of the SaaS provider, however, if the software requires very limited Internet connection for updates and fixes, and the business requires heavy and significant customization for the software to work with its existing requirements, the procured software would thereby, be a better creation of the business than otherwise. By benefit of more significant creation for the software to work for a particular business, the asset in question, would get the appropriate ownership, dependent on such conditions, that produced its incurrence, namely the two conditions a and b as stated above.

So, it can be defined that:

Asset Ownership Ratio = fn (Intensity of Internet Requirement, Customization Requirement)

where fn represents a function of the two variable. When fn is 1, the summed average of the two variables,

$$\text{Asset Ownership by Business} = (\text{Intensity} + \text{Customization})/2$$

For example,

With $fn = 1$

If Intensity = 80%

and Customization = 50%

Asset Ownership by Business = 65%

Asset Ownership by SaaS Vendor = 35%

Where,

$$\text{Intensity} = (100 - \text{Internet Connection Requirements of Software})$$

Certainly, a more appropriate value of fn can be allocated by regulation, or by individual businesses as may be required by its current accounting practices of procuring similar assets for business operations.

Indeed, fn maybe determined by certain regulations, that mandate the ability of the Internet connection to be a realistic value, as maybe in certain developing economies with under-developed telecommunication infrastructure, or other economic conditioning, such as Cybersecurity risks inherited by business that has such an Internet dependency for its core business functionalities, or even to the extent that some Reserve Bank policies of economic management requires such a check and balance of Asset erosion by any act of well-intended digitalization by businesses. Such regulated value of fn could then be used by all businesses within an economy, having a uniform

derivation for assets that are created in the act of developing the digital economy, and where such asset misplacements or erosions, are adequately addressed by regulative policy.

fn could also be determined by a particular business, set to a certain value, that best suits its business, depending on the particular business characteristics. Such business determination would also have reciprocal implications for regulative reporting, including asset depreciation value, asset churn ratios and associated taxation implications for such specific business. So, when a business determines its own value of ***fn***, it would certainly best represent its business condition in the digital economy, considering all aspects of regulations, customers and markets.

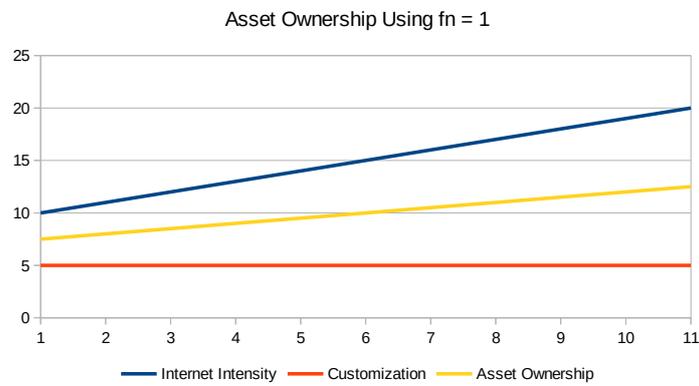


Figure 1 : Business Asset Ownership Dependent on Internet Requirements

V. Operational Risks

The operational risk for such procured Assets increases in the developing landscape of procured business systems services from third party vendors, as under such conditions, most, if not all ERP and similar software vendors would require constant and critical connection to the Internet for its system to work as required. Indeed, some latest data solutions require constant connections such that it updates certain internal databases etc., that is projected to benefit the customer, however, at the cost of reducing ability for the business to realize this expense as its own created asset, due to such constant Internet dependencies. Whilst the connection to the Internet maybe required by the SaaS/ERP software as a method to update its own technology, that the technology being pushed via the Internet is being executed to all businesses who are using this software, concurrently reduces the point-of-creation for the business and moves it towards the software vendor, as by virtue of such unanimous market operations, that may well be quite insignificant to the business user, the vendor establishes a certain 'Common Control' over the business, reducing it ability to realize such an Asset on such implicitly agreed conditions of dependencies.

The SaaS/ERP vendor may well into the future, put such mechanisms in place that prevents any further ability to customize the software for particular business. In this case, any regulative changes that impacts the business and may require customization would remain un-fulfilled, or awaiting vendor interpretations and associated implementation, creating a further liability condition for the business, as the business develops an limited ability to interpret regulation and becomes dependent on the SaaS service provider to provide such business abilities. This becomes an issue when the provider is based in a different country, as the economic risk for each business and the collective set of businesses in the economy, becomes subjected to such foreign interpretation of developing regulations, that may not be in the best interest of the business or the economy as a whole.

Indeed, if a foreign owned SaaS software provider benefits the interpretation of subjected regulations, the provider brings enormous and exponential advantages for its own financial markets as opposed to that of the particular business, as the regulative implications of such a target business economy, becomes of reduced risk for the economy of the software provider, having an impact on insurance and other cross-market costs for the foreign operator in the particular regulated economy.

In the Internet-of-Things environment, there is a constant competition between the vendor and the business user to have asset ownership, not only for the financial benefit of owning the asset, but with further implications for regular business operations, that may well be intended to be directed by the vendor for such reasons, as opposed to the management preferences of the company in a particular economy.

VI. Recommendations

Connected business systems is indeed a way for the future, but that it could be inappropriately used by third party vendors for financial benefits, remains a business risk for companies who want to adopt such SaaS/ERP systems. The condition, that once-bought-always-liable is not sustainable as a standard accounting practice, including initially on how to expense and create a fair asset for such costs that are undertaken by the company for such technology upgrades. Fair Asset Creation is currently not defined by any such Accounting Practices for expensing the incurred costs of digitalization of business practices using such SaaS services, creating an opportunity for such financial market mis-functioning and inefficiency.

VI-a. Fair Asset Creation Standard

It is recommended that IFRS provide a standard for Fair Asset Creation, owing to the miscalculations and misunderstandings that maybe generated from readers of financial information, who may perceive a difference in the reading of such expenses between different entities in the same or global market. A reader would indeed benefit, if there is a standard method introduced for such accounting expenses, as a realizable asset, as currently, and without any such standards, different entities would report differently on such expenses, creating a mis-match for such a developing digital economy.

The method could use the value of ***fn*** in conjunction with Intensity and Customization, as described earlier. The fair value of ***fn*** could be an undertaking of the particular market regulator, who may further delegate certain such values to particular businesses, depending on their circumstances.

Expense Incurred = \$100

fn = 1

Intensity = 80%

Customization = 50%

Fair Asset Created = 65% of \$100

= \$65

Accordingly, in the Balance Sheet Statement :

Without Fair Asset Creation

	<u>31/12/2021</u>	<u>31/12/2020</u>
Non-current Assets		
<i>Property, Plant and Equip</i>	1200	1500
Current Assets		
<i>Inventories</i>	1500	1800

With Fair Asset Creation*

	<u>31/12/2021</u>	<u>31/12/2020</u>
Non-current Assets		
<i>Property, Plant and Equip</i>	1265	1500
Current Assets		
<i>Inventories</i>	1500	1800

* Applying modified IFRS Standard xxx in Procuring SaaS Services

VII. Summary

It is important for the digital economy to have a clear and concise method to account for services that are procured or used online through the Internet. Without such a standardisation, there is considerable financial risk for developing digital economies, as well as for the readers of financial statements to obtain the most useful information about the company from such statements, especially in an environment where there is an increasing adoption of digital technologies. However, often, there may be a required clarity on issues such as Intellectual Property that may be used for using such digital technologies.

Whilst SaaS/ERP vendors would capitalize their balance sheet on selling softwares based in their proprietary IP, businesses who adopt such vendors software would also claim on such expensed resources as procuring a certain asset for the company, leading to a combined practice of inflationary accounting. This exchange of IP and associated technology, certainly requires further clarity as to the acceptable measures and market standards that maybe expected and applied both by the business as well as the vendor, in the best interest of a reliable digital economy with associated accounting standards at all required stages.

By having a set standard for asset creation during procurement of a SaaS service, both business as well as the vendor would have a fair opportunity to realize the Asset in fair value use respectively, creating a better defined and level playing field for both parties, who indeed should work in conjunction for a successful developing digital economy, and without added risks of IP theft, inflationary accounting, and risks of financial fraud due to asset misplacements. Irrespective of the vendor, the underlying digital technologies should not be deprived of the best available solutions for business due to such introduced risks to the digital economy, that would be better addressed through a standardised accounting method.