Business Process Transformation Grid: An Empirical Model for Strategic Decision Making Towards IT Enabled Transformations

Dhrupad Mathur

Director(Industry Interface), S.P.Jain Center of Management, P.O. Box 502345, Block 5, Dubai International Academic City, Dubai, UAE
dhrupad.mathur@spjain.org

Abstract. The business process transformation grid postulated here is an outcome of empirical studies carried out in the areas of IT enabled transformations and e-business. It proposes a three dimensional view of a business system and creates an integration of desired momentum across these three axes. Most of the work on the business processes and e-business models is centered around developing the models capitalizing largely on the customer related processes which typically exposes the firm to the risk of having just a functional approach. Whereas, the process transformation grid focuses on three primary clusters of business processes and hence is more flexible and appropriate way of representing a business in its totality, as the approach is three-dimensional contrary to the prevalent approaches that due the lack of a structured strategic framework tend to become unidirectional.

Keywords: Transformation, e-Business, IT-enablement, Process, Grid.

It has always been a puzzle to for the decision-makers to initiate the Business Process Transformations and more so when they are IT-enabled. In spite of various available frameworks, it requites a lot of keen judgment and due diligence for one to figure out where to hold the organizational system from. At times, the outcome-centric frame of mind doesn't allow the possibility of exploring the dependencies thereby giving rise to unidirectional transformations of business processes. We all have heard about and have known transformations by different names: 'Corporate office initiative', 'Developers' view', 'their program', 'Consultants interest' etc. reflecting the perceived one-sidedness of such moves. While there is a lot of behavioral theory to be churned before one deserves to talk about the issues in totality, it is appropriate to mention that not many organization-wide transformations are even conceived holistically. This creates a partial movement of various process clusters existing in an organization without projecting or addressing their connections. At times by design but the symptomatic treatment to organizations ailments result in partial transformation creating process failures.

The business process transformation grid is an empirical approach towards determining the critical success factors for a business model. Every axis of a primary process shows the magnitude of the existing transformation, also corresponds to the degree of other factors which are critical for the success of an IT-enabled business.

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This would help the managerial decision making and attaining a competitive advantage in many ways:

1. Re-visiting existing business model
2. Benchmarking IT-enabled business
3. Determining the aspiration level.
4. Determining transformation potential
5. Finally drawing a transformation roadmap integrating the three process areas.

Hence, making the IT-enabled transformation journey simpler.

Business process transformation grid proposed here has the potential of being developed as an effective empirical tool for managerial decision making in view of for business process transformations. This simple tool will help the managers to meditate on the nature of the business processes eventually leading to streamlined processes and inducing transformations.

Limitation: Since the grid considers various strategic elements and is dependent on the judgment of the manager for administering it, therefore the element of subjectivity can not be ruled out completely. However, it enables the manager to clearly demarcate the areas for transformation across three axes and prevents the pitfalls of isolated transformations. Number of inference-points in the grid can be developed.

1 Postulating the Business Process Transformation Grid

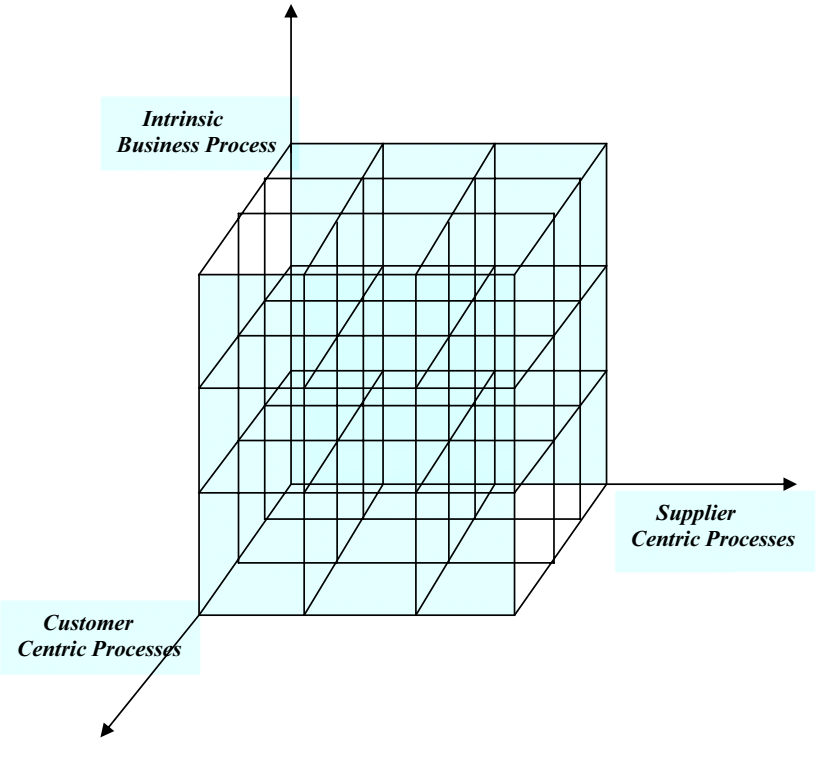


Fig. 1.

2 The Business Process Transformation Grid

Business Process Transformation Grid postulates 3 basic types of Business Processes, which are common to any e-business (or business for that matter):

1. Intrinsic Business processes (I). – Internal Business Processes and such clusters
2. Customer centric processes (C). – Demand-side Processes and such clusters
3. Supplier centric processes (S). – Supply side processes and such clusters

The observations and subsequent empirical analysis based on the secondary data and literature survey of e-Business entities highlights the fact that all the three processes together in different magnitudes give rise to a unique business model. Therefore the Business Process Transformation Grid is an empirical representation towards seeding, describing and classifying an e-Business model.

2.1 Significance and Scope of Business Process Transformation Grid

To achieve any kind of practicable business model, it is very essential to have a good understanding of the constituent components and processes. The business model ontology is the study of developing an incorporating framework, which suitably describes or gives a proper point of reference from where the e-business can be configured. This research therefore strives to achieve an empirical framework, which would be polymorphic in nature so as to take care of different dimensions where the business process exist and can be used for rightfully describing any kind of existing as well as forthcoming business model in any industry. One of the prime significance of this framework would be that contrary to the most popular approaches, which are centered on customer centric processes, it would help in understanding the other dimensions of e-business as well.

2.2 Characteristics of Business Process Transformation Grid

1. Transformation Volume

$$\text{Transformation Volume (T)} = I * C * S$$

Transformation Volume in its simplest sense is the amount of Business Process Transformation, which has already taken place. In order to determine the transformation volume, the extents of e-Business process transformation in a business entity has to be determined at a given point of time and considering the environmental factors to be nearly constant. (technology, strategy, innovation etc). Further, industry specific transformation benchmarks are developed similarly by identifying the best of the lot practices across industry for each axis to be considered as the aspiration level-benchmarks, against which the grid facilitates comparison.

It is proposed that a ***10-point scale index*** for the representation of each primary process axis be identified and the business model be graded on this scale. Therefore, the maximum Transformation, which can take place for a Business Model in a particular industry, can be:

Maximum Transformation Volume = T_{max}
Where, I = C = S = 10 (all maximum, benchmark case)
So, T_{max} = 10 x 10 x 10
T_{max} = 1000 (benchmark)
Benchmarks can either be existing or even futuristic.

Implications of Transformation Volume:

1. Transformation volume gives a 3 dimensional projection to the researcher or a manager as to which area is to be explored more for business process transformation.
2. It indicates the position of a business with respect to a particular industry therefore serving as a powerful empirical tool for business model development; as this relies on a benchmarking of the business under consideration with respect to the industry benchmarks.
3. It highlights the weaker axis of the e-business hence helps in identifying better integration areas of all the three forms of primary business processes.
4. It is proportional to firm's integration with Information & Communication Technology, which requires and enables higher levels of support of firm's robust IT infrastructure and customers' and suppliers' e-readiness.

2.3 Transformation Potential

Transformation Potential signifies, "what is to be done" in an e-business. It is the difference between the ***'desired state'*** and the ***'actual state'***. Therefore, any business which aspires to become an e-business has to look at the industry specific Transformation Potential, which indicates the total amount of transformation volume which is required at a given stage to achieve growth towards a desired e-business state.

Hence,

Transformation Potential (TP) = $T_{max} - (C * S * I)$
$TP = T_{max} - T$

Transformation potential is a relative term & has relationship with the extent of transformation achieved in a *particular industry*. Using the same ***10-point scale indexing method*** **f**or marking the Transformation Potential on a scale of 10 maximum, the difference between the desired and actual state is determined.

Therefore, Maximum Transformation Potential = TP max = 1000
Where, C = S = I = 0 (actual stage-startup for a particular business)
So, Transformation Volume = 0 x 0 x 0
T = 0 (minimum, as in a business start-up)

$TP_{max} = T_{max} - T$
$TP_{max} = 1000 - 0$
$TP_{max} = 1000$

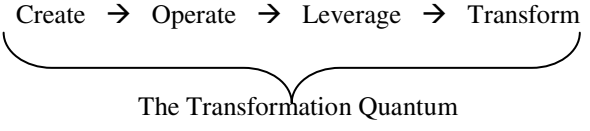
TP max would be case in those businesses that are purely traditional or are just using a fraction of e-business process as compared to the industry. The desired stage for a business would be, C = S = I = 10 (maximum) i.e. T_{max} equals to T thus,

$TP_{min} = 0$

The transformation volume of two models may be same yet there might be differences in the orientations on the three axes. But the over all impact of the volume remains same in terms of what amount of transformation has been or has to be achieved. However, this has to be studied in context of the three axes so as to get the clear picture of what is to be done tactically and operationally. So this gives broad strategic directions and strategic options but has to be administered systemically.

2.4 Transformation Quantum

The discussion on the business process transformation is incomplete until we understand how this transformation takes place and what is the microscopic constituent of the incremental transformation in the e-business. We will call it the Transformation Quantum.



The Transformation Quantum concept proposes that the transformation is an ongoing process. This happens because of the ongoing operations of a business, as an e-business model evolves and is translated to reality, various issues come out, which is a learning and knowledge gathering process. This knowledge is further leveraged to transform the e-business having a bearing on further model creation and upgradation. Hence, resulting in the next level of transformation. This can be visibly understood by the following figure as has also been illustrated by the IBM e-Business cycle.

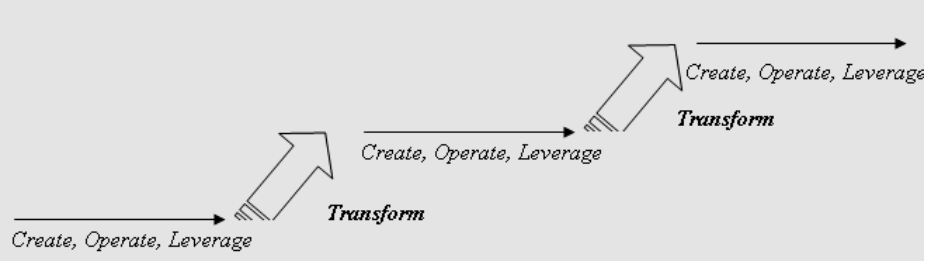


Fig. 2. Transformation Quantum

The above three concepts of Transformation Volume, Transformation Potential and Transformation quantum will help a management decision maker in developing a high-level transformation roadmap. Subsequently, giving rise to prioritization of process areas to be addressed through IT-enabled transformations.

Most of the work on the business processes and models is centered around developing the models on the basis of the customer related processes or demand side i.e. on the face of it having a functional approach. Whereas, this process transformation Grid focuses on three primary types of business processes and hence is more flexible and

appropriate way of representing a business in its totality, as the approach is three-dimensional contrary to the prevalent unidirectional approaches. Moreover, the Business Process Transformation Grid is also an empirical approach towards determining the Critical Success Factors of a business model. Every axis of a primary process shows the magnitude of the existing transformation, also corresponds to the degree of other factors which are critical for the success of a business. For example – If the Customer centric processes of a business are transformed to a greater extent, then it implies that the customer should have a certain level of e-readiness. So, the awareness and understanding on the customer's side become crucial for the e-business. After all how many customers are really keen and comfortable with various customized applets and supporting programs on Internet.

The Business Process Transformation Grid also highlights transformation from Bricks to Clicks i.e. from traditional process based business to an e-business. Yet again taking example of Dotcoms, which according to most researchers is the manifestation of e-business; is not the only entity, which makes up a business model. According to the process transformation grid, Dotcoms are those business entities that have their customer related processes transformed to a greater magnitude. So, only Dotcoms are not e-Businesses. Thus, we also have businesses, which are more transformed on the other two axes i.e., intrinsic business processes and suppler centric processes.

It has been greatly argued that the e-business model development is not an exact science and involves a good deal of judgment. However, the Business Process Transformation Grid proposed here forth can be applied as an effective empirical tool for managerial decision making when it comes to determining the IT- enabled transformation for any business model with respect to a specific industry.

E-Business strategy is about the uncertain future and therefore tends to be based on assumptions, premises and beliefs about customer priorities, technology evolution, competition and the core competencies that will be needed to compete. There are two types of E-Business strategy planning: top-down, analytic planning and bottom-up, "just do it" tactical planning. Top-down planning take a broad view of the environment, identifies options and then defines the organizations' mission and direction. A tactical operation takes a more focused or narrow view of the environment and performs the necessary activities required to produce short-term results.

(Kalakota, Robinson, 2000)

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