Instruments for Cloud Suppliers to Accelerate their Businesses

The Need for Unleashing Business Potential and Boosting Cloud Economics

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Abstract-Major IT suppliers like HP, IBM, Microsoft and Oracle are pushing their cloud services and technologies to the global markets. Their success varies considerably, especially in Europe. From a Microsoft perspective, the Scandinavian countries are far ahead in adopting cloud services, and the German speaking countries are far behind. Distribution channel partners (also IT-suppliers) and customers refuse to buy in. In addition, IT suppliers' communication is mainly technical and as a result, customers do not understand how cloud service adoption would bring any profitable strategic This also inhibits the use of Electronic advantage. Marketplaces for Cloud Services (EMPCS), Cloud Service Brokerage (CSB) or Electronic Market Places (EMP). Suppliers need instruments and support for anticipating, communicating and measuring the business potential of and with their customers. Cloud transformation for suppliers means changing their approach to cloud services, in order to increase their competitiveness and cash flow, as well as that of their customers`.

Keywords - business potential reference model; cloud services; customer value orientation; open innovation; transformation process.

I. INTRODUCTION

In Austria, Germany and Switzerland, Cloud business got stuck before it even really started. Besides other obstacles, like legal and security issues, customers do not buy cloud services, mainly because IT-suppliers fail to communicate the business value to business decision-makers.

One major reason for their dysfunctional attempts is their inability to identify and analyze customers' business potential. In this context our empirical research and conversations with more than 300 executives of Microsoft partner companies in Austria, Germany and Switzerland reveal that they do not even try to measure the business impact of their IT-solutions, which means that they are not even interested in monetary customer business value [8]. Instead, suppliers talk (in their marketing) about technologies like azure, hyper-v, high availability, fault tolerance, big data, predictive analytics and so forth instead of projecting the achievable customer results of their service bundles in terms of cash flow and competitiveness. Customers are confused and do not sign cloud services contracts. Cloud business in these countries is far behind other European and global countries. There are also other reasons for not buying cloud solutions, which are linked to the customers themselves. The banking and insurance industries for instance, who would derive major and profitable strategic advantages from adopting cloud services, refuse to bring their sensitive information to the cloud.

With this positioning paper, we structure the problem and introduce an approach to resolve the situation. Starting with assessing the IT-suppliers with regard to their *customervalue-orientation* [8], we then introduce a *business potential reference model* as a common denominator for customers and IT-suppliers. With such a model in place, we then develop a sound innovation process as the central instrument for IT-suppliers to create, sell, implement, and measure monetarily valuable cloud solutions, with, for and to customers.

Various attempts have been made to define the term "Cloud Economics" in the literature [27][28][29]. The one that we perceive as closest to our understanding is: "Cloud economics is a branch of knowledge concerned with the principles, costs and benefits of cloud computing" [30]. In our research, we develop instruments that help leverage financial transactions between providers and consumers of cloud services.

The main objective of our research is to answer the question of how the business transformation of cloud suppliers can be performed successfully. Finally, we introduce a 9-stage end-to-end transformation process [8] with all relevant instruments to help IT-suppliers master the inevitable change, associated with the process.

In Section II, we focus on the definition of customer value orientation, regarding the expected advantages of cloud services usage, by defining a catalog of indicators to measure the advantages. In Section III, we discuss our model for defining the business potential on the customer side, which can be achieved by the enabling technologies on the IT-Supplier side. In Section IV, we introduce some initial elements of the transformation process that must be undertaken by IT-Suppliers, so that their services can help customers unleash business potential.

II. ASSESSING IT-SUPPLIERS' CUSTOMER VALUE ORIENTATION

Initially, we need to define customer value orientation. The main components are *customer value* and *orientation*. The next step would be to revisit the conceptualization and operationalization of the customer value orientation to make it fit the modern needs of cloud economics. With this in mind, we can assess IT-suppliers' current *customer value orientation* status, in order to help them focus on the right target (see Figure 1. Misaligned customer value orientation).



Figure 1. Misaligned customer value orientation

A. Customer value

We asked executives from the customer side for their criteria when judging capital expenditures (CapEx) or major operational expenditures (OpEx), which would both also apply to cloud services. Their answers were all about Return on Investment (ROI), Break Even, Net Present Value (NPV), etc., being very clearly determined and at the same time predictable. We conclude that the customer value they are looking for is something that helps them either generate a better interest rate on their invested capital or helps them increase competitiveness.

B. Orientation

In the literature, there are various definitions of the term "orientation" and, depending on the discipline, there are different perspectives. At least three relevant aspects refer to the main characteristics of orientation. First, there is the environmental positioning and information collection, second, there are values, guidelines and principles and third, there are intended behavior and targeted activities [8].

When it comes to organizational orientation with ITsuppliers, we have, without exception, encountered implicit technological orientations but no explicitly described models with other objectives.

There are various forms of orientation described in the literature and there are also very diverse definitions of value, but only one orientation form focusses on monetarily measurable customer value [8]. It seems reasonable to orient or realign an entire IT-suppliers' organization around providing exactly the value that executive business decision-makers on the customer side are looking for.

C. Conceptualization and operationalization of customer value orientation

Organizational orientation is often conceptualized with the same pattern. There are success factors on a corporate level, on an interaction level and on a service level (see Figure 2. Levels and success factors of customer value orientation).

Each factor is subsequently described by formative and/or reflective indicators with underlying values, usually measured on a scale from 0-100.



Figure 2. Levels and success factors of customer value orientation [8]

Implementing customer value orientation in an ITsupplier organization means synchronizing each individual success factor with the main objective. For instance, with *Goals*, the organization would express and document the customer value it wants to create and provide, *Strategies* would express how the organization will create the customer value, *HR* would define how members of the organization are hired, measured and fired in the process of creating customer value, *Marketing/PR* would communicate customer value, *Individual skills* would be developed with members of the organization to create and deliver customer value and, last but not least, *Customer value measurement* would ensure having leading indicators in place to control, prove and finally document the customer value.

The success factors' individual level of sync with the customer value orientation is measured and depicted in a diagram (see Figure 3. Customer value orientation status).



Figure 3. Customer value orientation status

D. Current customer value orientation status

We have created an initial catalogue of indicators to measure the current customer value orientation of ITsuppliers (see Figure 3. Customer value orientation status). The results reveal the enormous potential for IT-suppliers to grow their businesses because typically, we encounter values below 50 for all success factors. Whenever we had the opportunity to conduct such measurement with members of different hierarchical levels within an organization, we could also observe that higher-ranking people would rate the orientation status more positively than the lower levels.

Finally, we found, with all IT-suppliers that they do not measure the customer value potentially obtained from using their solutions.

III. BUSINESS POTENTIAL REFERENCE MODEL

A "business potential" is a chance to generate a higher operating cash flow, either by reducing outgoing cash flows or increasing incoming ones. Investing and financing cash flows are designed to leverage the operating cash flow. Therefore, they are not important to the genuine business potential. Basically there are inhibitors (I) from I1 to In, preventing this currently happening. To unleash the business potential, these inhibitors need to be addressed individually and appropriately with enablers (E) from E1 to En. The total monetary value of both inhibitors and enablers can be calculated with the following formula: resources x time x value (in any freely convertible currency). This way, the total value of a business potential is the sum of the values that each Inhibitor (I1 to In) generates on the one side. On the other side, the total value of the offering is the sum of the values that each enabler (E1 to En) generates. Altogether, this constitutes a solution (see Figure 4. Business potential reference model).

The real value of this solution is the total value of the inhibitors minus the total value of the enablers. If this value is positive, it indicates that the solution generates a positive impact on the operating cash flow of the owner of the business potential. Ideally, this is the customer, but the ITsupplier should also be able to generate a higher operating cash flow for himself, if he is able to determine the customer value.



Figure 4. Business potential reference model

Looking at elements of a business potential, reveals the lever for making cloud services more effective and efficient. The customer business potential, with its current inhibitors, needs to be revealed and examined, making this the common denominator between IT-suppliers and customers. By contrast, our observation from over 12 years of working with over 11.000 people from over 450 IT-suppliers, is that suppliers and customers use technologies as a common denominator, although none of them has properly analyzed the inhibitors or even a defined business potential as a target. Looking at the web sites and marketing collateral of ITsuppliers and requests for proposals (RFP) or requests for information (RFI) from customers, it is evident that this has not changed at all over time. We will not try to figure out which side is responsible for such dysfunctional behavior. Instead, we will establish the business potential, with its inhibitors and enablers, as the most effective common denominator. Understanding, analyzing and quantifying the individual inhibitors of a business potential is crucial to defining appropriate individual enablers and to specifically addressing the inhibitors. Only this way can both sides of a solution be measured and controlled. Finally, a solution is intended to help the customer generate more operating cash flow and hence increase his competitiveness. The advantage for the supplier would be a value-added pricing approach.

We conclude that the current state of play requires both parties to fundamentally change the way they approach and create cloud services as intended solutions. A challenge is that leaders on both sides are not prepared. Neither transformational leadership, nor transformation methodology, nor innovation methodology, nor innovation processes, were taught at university or other training to the majority of people who are currently in leading positions on either side. There is a massive skill gap to close.

IV. TRANSFORMATION PROCESS

IT-suppliers are able to manage the complexity of IT, but are still unable to map it to customers' business potentials, because they do not have insight into their target customers' business processes. Fundamentally changing their approach to innovation management (creating, communicating/selling, implementing and controlling) of Cloud-Services is what we perceive as the core of the so-called cloud transformation, in order to boost cloud economics in our target countries.

A. The need for innovation processes

Cloud technology itself is not a solution and does not provide value. Identifying business challenges or desired results is essential before modifying technologies. ITsuppliers in our focus countries are still technology oriented. Innovative is, ex post, what has successfully penetrated a market. We recommend integrating the customers into the innovation process (Open Innovation) of cloud services. According to our conversations with the executives of ITsuppliers, this needs to be the focus of our research. From over 300 CEO conversations, we have observed that ITsuppliers do not have an innovation process in place. It may seem incredible, but while process management and process modeling techniques [10] have impacted on a lot of processes even in the academic world (see Figure 5. The Nobel price process), for example, by making them visible, repeatable, measurable and controllable, the innovation process still evidently remains a black box.



Figure 5. The Nobel price process [9]

In the literature, innovation processes [11][12] are only described as a series of specified sub-processes [13] and rarely end-to end [14][15], which ultimately contributes to failure in innovation [16][17]. There is a demand for new management priorities [18], management responsibilities [14], management models [19], core processes [20][21][22], process activities, process roles and process resources [16][23].

Designing a simple innovation process that IT-suppliers can use to create cloud-based hybrid service bundles is a research gap and thus the subject of our future research and publications.

B. Conducting successful transformation

The term *change* is used so variously in the literature that some misunderstanding is inevitable. There is no copyright on expressions like "Organizational Development", "Evolution", "Change Management" or "Transformation Management" [1][7]. An early version of a change management model introduced in 1947 proposed that change in an organization requires unfreezing, changing/moving and (re)freezing [4]. Although the theory was criticized for being too simplistic and for not being operationalizable, Lewin's model still is relevant and can be found at the cores of many major approaches to change.

We will therefore introduce the major concepts (Transformation management, Enterprise Transformation and Transformation of Management) before introducing our own transformation model. In addition, the success of a transformation is fundamentally determined by its extent. Too big could make it too long and costly, whereas too small could mean failing to achieve the objectives. In general, there are three types of transformation (see Figure 6. Types of transformation)

- Type 1: Transforming the organization as an entity
- Type 2: Having a small team pilot and role model the transformation within the organization
- Type 3: Establishing a new entity outside the organization and starting from scratch [5].



Figure 6. Types of transformation

We will have to analyze and develop recommendations, and determine with IT-suppliers which type of transformation will be most effective/efficient and under which circumstances. Also, we would need to define the three dimensions of transformation, *Ends*: Describing objectives that need to be achieved through initiatives, *Means*: Describing resources needed to achieve objectives, *Scope*: Describing the extent and direction of the transformation (see Figure 7. Dimensions of transformation)



Figure 7. Dimensions of transformation [6]

The transformation approaches in both the literature and in practice have matured over the past decades. Nevertheless, leading or managing transformation is still not common in the curricula of graduate and post-graduate studies. When conducting transformations in the past, the author has identified this issue and already introduced a new stage in Kotter's transformation process [3] "Stage 3: Empowering the guiding coalition" (Figure 8). Educating the key people in transformation methodology and about the original core of their transformation, has already helped hundreds of people to drive their transformations successfully.

1. Creating a sense of urgency
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2. Creating a guiding coalition
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3. Empowering the guiding coalition
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4. Developing vision and strategies
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5. Communicating the vision
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6. Empowering the broad base
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7. Focussing on short term goals / quick wins
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8. Consolidating results / deducting further change
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9. Anchoring new approaches in the culture

Figure 8. The 9-Stage process [8]

#### V. SUMMARY AND RECOMMENDATIONS

Customers of cloud solutions want to achieve positive, monetarily measurable results. Making them aware of their business potentials would leverage the sale and use of cloud solutions. IT-suppliers do yet not speak the language of business. They are talking bits and bytes, which currently leads to poor business in the focal area. Business potential is the most effective common denominator for customers and suppliers of cloud solutions. The major objective of our research is therfore to create a methodology and tools, enabling IT-suppliers to conduct their transformation successfully, which will in turn contribute to driving cloud economics.

#### VI. FUTURE RESEARCH

On the one hand, we strongly recommend conducting future research on innovation processes in order to enable customers and suppliers to measurably and repetitively create innovations. An alignment of these processes would together lead to better and faster results. On the other hand, it is questionable whether the majority of suppliers and customers are really able to transform with a reasonable scope of objectives, within a reasonable period of time and at an acceptable level of costs. The critical element is time to market. Therefore, we recommend future research in methodology and cloud-based technology to help both parties exploit business potential as the most effective common denominator.

#### REFERENCES

- [1] A. Janes et al., "Transformation-Management Changing Organisations Inside Out," Vienna: Springer, 2001.
- [2] W. B. Rouse, "Enterprise Transformation Understanding and Enabling Fundamental Change," Wiley, 2006.
- [3] J. P. Kotter, "Leading Change," Boston: Harvard Business Review Press, 1996.
- [4] K. Lewin, "Change Management Model," New York: McGraw Hill.
- [5] J. P. Kotter, "Accelerate: Building Strategic Agility for a Faster Moving World (XLR8)," Boston: Harvard Business Review Press, 2013.
- [6] W. B. Rouse, "Enterprise Transformation Understanding and Enabling Fundamental Change," Wiley, 2006, p. 39.
- [7] R. Lessem et al., "Transformation Management Towards the Integral Enterprise," Farnham: Gower, 2009.
- [8] F. Keßler, "Enterprise Transformation Management Development of a Concept of Customer Value Orientation for IT_Companies, B2B, as a Path to Longterm Profitable Growth", 2011.
- [9] Author not named, in http://www.omg.org/spec/BPMN/20100601/10-06-02.pdf, p. 26, retr.: Feb. 2016
- [10] G. Schewe et al., "Innovation for Medium Size Companies A Process Oriented Guideline for SME," Wiesbaden: Gabler, 2009, pp. 124.
- [11] Fraunhofer Institut für Arbeitswissenschaft und Organisation "Cross-Industry Innovation," in http://wiki.iao.fraunhofer.de/index.php/Cross_Industry-Innovation, 2012, retrieved: Oct. 2012.

- [12] Author not named, Gabler Wirtschaftslexikon, "Open Innovation," in http://wirtschaftslexikon.gabler.de/Archiv/81584/openinnovation-v3.html, 2012, retrieved: Oct. 2012.
- [13] B. Wirtz, "Business Model Management Design Instrumente – Success Factors of Business Models," Wiesbaden: Gabler, 2011, pp. 214.
- [14] J. Hauschildt et al., "Innovation Management," 5. überarb., erg. und akt. Aufl., Munich: Vahlen, 2011.
- [15] T. Stern et al., "Successful Innovation Management Success Factors, Basic Patterns, Cases," 4., überarb. Aufl., Wiesbaden: Gabler, 2010, p. 18.
- [16] M. Disselkamp, "Innovation Management Instruments and Methods for Implementation in Companies," 2., überarb. Aufl., Munich: Springer Gabler, 2012, pp. 56.
- [17] M. Zollenkop, "Business Model Innovation," Wiesbaden: Deutscher Universitäts-Verlag, 2006, p. 49.
- [18] T. Bieger et al., "Innovative Business Models Fundamental Concepts, Creative Areas and Entrepreneurial Practice," Heidelberg: Springer, 2011, pp. 81.
- [19] N. Tomaschek et al., "Management & Consulting in Transformation- und Innovation-Processes - Research in Progress," Munich: Rainer Hampp, 2010.
- [20] C. Hentschel, et al., "TRIZ Systematic Innovation," Munich: Hanser, 2010.
- [21] B. Maurer et al., "World Champions in Innovation How our Companies become Unbeatable," Weinheim: Wiley, 2011.
- [22] J. O. Meissner, "Introduction to systemic Innovation-Management," Heidelberg: Carl-Auer-Systeme, 2011.
- [23] O. Gassmann et al., "Practical Knowledge Innovation Management – From Idea to Market Success," 2. erw. und überarb. Aufl., München: Hanser, 2011.
- [24] H. Österle et al., "Memorandum for Creation Oriented Wirtschaftsinformatik, in Österle et al.: Creation Oriented Wirtschaftsinformatik: A Pleadoyer for Rigor und Relevance," infowerk Verlag, 2010, pp. 1 – 6.
- [25] A. R. Hevner et al., "Design Science in Information Systems Research," in MIS Quarterly, Vol. 28, No. 1, (2004)3
- [26] A. R. Hevner, "A Three Cycle View of Design Science Research," Scandinavian Journal of Information Systems, 19(2007)2, pp. 87 – 92.
- [27] M. Yamartino, "The Economics Of The Cloud," in http://news.microsoft.com/download/archived/presskits/cloud/ docs/the-economics-of-the-cloud.pdf, 2010, (retr. Feb. 2016)
- [28] H. Okin, "Cloud Economics," in <u>https://www.kpmg-institutes.com/institutes/advisory-institute/events/2014/09-/podcast-cloud-economics.html</u>, 2014, retr.: Feb. 2016
- [29] D. Reeves et al., "The Truth About Cloud Economics," in https://hbr.org/2012/04/the-truth-about-cloud-economic/, 2012, retr.: Feb. 2016
- [30] o. V. TechTarget, in <u>http://searchcio.techtarget.com/</u> definition/ cloud-economics, 2013, retr.: Feb. 2016