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Business and IT Alignment: An Oracle View

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Executive Summary

In this paper we present an Oracle view on Business and IT Alignment. As part of that view, we introduce three elements; management excellence, operational excellence and technology excellence. Most people are familiar with the term operational excellence; optimizing cost, quality, and speed. It has become a prerequisite to fuel the next level of competitive differentiation -- management excellence -- which is characterized by three other attributes; smart, agile, and aligned. Neither can be achieved without technology excellence; an IT strategy that focuses on being complete, open, and integrated. Figure 1 describes our view on Business and IT Alignment.

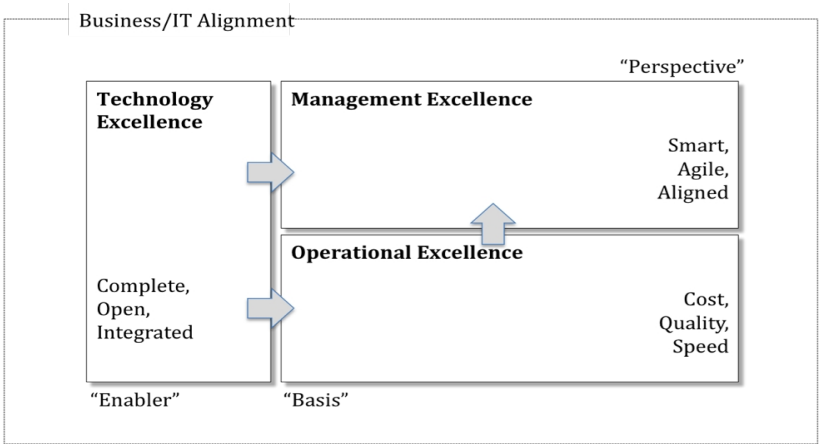

Figure 1: Business/IT Alignment

This paper, written for CIOs and IT strategists, presents a conceptual view that helps with designing and evaluating IT strategies, and helps build business cases for IT.

Introduction

It is with hesitation that we write this white paper. So much has been said about business and IT alignment (BIA), what could possibly be added? There are IT governance principles, IT architectural concerns, areas of IT innovation, IT key performance indicators, and IT cost saving elements. However, ask ten people for a definition of what business and IT alignment means, and you will get twelve answers.

But, what about the business side? Although the business often challenges IT to show their benefits and overall value, most of the BIA discussions take place within IT. Alignment can only be successful if it comes from both sides. Is there an equally structured discussion taking place on the business side about how to receive the benefits from IT? Is there a discussion on the business side on how to adapt corporate strategy to IT-driven innovation? Most CIOs have plenty of business performance indicators on their scorecards, but how many business executives manage their business with IT performance indicators? BIA doesn't seem to be as reciprocal as it should be. And, while we are at it, what about business-to-business alignment? IT can only be efficient and successful in the long term if it is based on a decent architecture. Long term success is difficult to achieve if the business treats IT in a stove-piped way, forcing business cases to focus on departmental benefits only.

You could even argue that BIA should be a discussion from the past anyway. Organizations routinely outsource activities; they rely on many partners throughout the value chain creating what is often called an extended enterprise. A successful business today is based on a performance network of all stakeholders, such as channel partners, suppliers, innovation partners, investors, customers and even competitive relationships. In other words, stakeholder alignment should be front and center to organizations today.

In this paper, we present our view on BIA based on the *goal* of alignment; running an excellent organization. We distinguish three areas of excellence: operational excellence, management excellence, and technology excellence.

The three pillars of operational excellence[1] are cost, quality, and speed. Cost-efficient organizations have higher margins, and therefore more investment capacity. A focus on quality gives them competitive advantage, offering a superior price-quality ratio, and speed is of the essence in a best-in-class supply chain. Operational excellence has a focus on an organization's business processes such as order-to-cash or procure-to-pay.

Management excellence[2] is based on three characteristics as well: being smart, agile, and aligned. Smart organizations have deeper insight into what is happening in the market and in their organization as compared to their competitors. They have the agility to act upon those insights better than their competition as well. These improvements should be shared across the entire value chain as alignment is needed to prevent sub-optimizations from occurring. Management excellence focuses on management processes such as plan-to-act and analyze-to-adjust.

Finally, technology excellence is also best described using three keywords: complete, open, and integrated. A complete IT strategy is part of an overall business strategy, in a reciprocal way. Corporate strategy aligns with IT, as much as IT strategy focuses on reaching the strategic goals. As we cannot predict tomorrow's needs, an excellent IT strategy also needs to be open, anticipating the use of applications, technologies and devices that are not in use at the moment, that users may bring to the table, or that do not even exist today. As no organization stands alone, it must interact with many stakeholders; therefore, an IT strategy needs to be integrated.

Technology excellence is needed to achieve operational excellence and management excellence, while operational excellence is needed to be successful with management excellence.

[1] Treacy, M., Wiersema, F. (1997), The Discipline of Market Leaders: Choose Your Customers, Narrow Your Focus, Dominate Your Market, Basic Books

[2] Oracle White Paper: Introducing Management Excellence, How Tomorrow's Leaders Will Get Ahead, www.oracle.com/epm

The Perspective of Management Excellence

Operational Excellence should be a primary goal for all organizations; however, the source of competitive advantage decreasingly comes from being the cheapest, or the fastest to respond to the market. There is always a competitor who is willing to offer even lower prices, and consumers have come to expect an immediate response. Furthermore, over time it becomes increasingly difficult and expensive to improve cost, quality and speed, to the point where the investment does not provide a good return anymore.

Competitive differentiation today comes from being *smarter* than the competition; being able to see what is happening in the market, and within the organization, with a deeper understanding than anyone else. Most of the innovation today comes from technologies you didn't invent yourself. Most business opportunities now come from new political, economical, social, technological, environmental or legal[3] trends and changes, and not simply from your own marketing campaigns. Today's economic pressures, in many cases, are not caused by mismanagement, but are inflicted by the global economy. Business success is not always within our circle of control, or even our circle of influence. Being smart is being able to understand change, and what that means to you.

But, being smart can only help you if you are able to act on it. The life-cycle of products and services is decreasing dramatically, so capturing the first-mover advantage, or being a fast-follower, is crucial to business success – until the competition catches up and a new cycle begins. Strategies, plans, processes, and organizational structures need to be flexible, so that they can be fine-tuned as you go along. That is why *agility* is the second source of competitive differentiation.

Agility only works if it can be copied and applied throughout the complete value chain. If you are more agile than the rest of the value chain, you have created a sub-optimal organization. Others can't follow, and new smart insights never make it to the bottom line. Being smart and agile hinges on the third element of business success; being able to *align* the complete value chain.

Being smart, agile, and aligned are the three attributes of what we call management excellence. Where operational excellence usually focuses on optimizing operational processes to create

[3] a so-called PESTEL-analysis (political, economical, social, technological, environmental, legal) reveals those opportunities

competitive advantage, management excellence aims to create better management processes to differentiate from the competition[4].

Management Excellence and the Role of IT

Technology can play an important -- even leading -- part in being smart. In *Competing on Analytics*[5], Thomas Davenport describes the four common characteristics of analytical competitors. First of all, the analytics deployed in the organization support the organization's strategy and distinctive capabilities. This can be about customer intimacy, product innovation, post-merger integration, mastering the brand, or any other strategy. For analytical competitors, technologies such as data mining, multidimensional analysis, and simulation are at the forefront of strategic success. The second characteristic is that these technologies are spread enterprise-wide, and are not just in the hands of a small group of knowledge workers. All levels of management and all lines of business have access to the technology, yet it is managed in a central way to avoid fragmentation and improve alignment. Third, there is a strong commitment from senior management to make sure enterprise-wide adoption is realized, that there will be one version of the truth, and that new insights, touching multiple parts of the business, are indeed implemented. The last characteristic is to have a high level of ambition. Analytics are not a controlling activity for the back-office; they are seen as the key to strategic success. They can transform the organization, the business itself, and ultimately the market.

Most organizations do not suffer from a lack of business intelligence (BI) and other types of analytics. In fact, in most cases, there is too much and it is too fragmented including different tools, incoherent data, and conflicting definitions. In order to get smart, organizations should rationalize their management systems first. This is needed to filter out the noise, and to clearly and immediately see any exceptions, opportunities, trends at the edge, or weak signals, In order for organizations to become agile, their operational systems and management systems need to be integrated. In most cases, operational business processes are not very well connected to the tactical and strategic management processes. Operational plans and financial budgets are based on different grounds. Changing conditions are often detected first in operational processes (order-taking, campaign response, payments), but there are multiple layers before these signals reach the top. Meanwhile, this information is often being filtered by the various levels of management on its way to the top.

[4] Oracle White Paper, Management Excellence: A Step-by-Step Strategy to Success, www.oracle.com/epm

[5] Davenport, T.H., Harris, J.G. (2007), Competing on Analytics: The New Science of Winning, Harvard Business School Press

When enterprise performance management (EPM) systems are connected to other business applications, such as enterprise resources planning (ERP) and customer relationship management (CRM), strategic course-changes and tunings are implemented instantly, and operational feedback is escalated immediately. When CRM, ERP and supply chain management (SCM) systems are connected, changes in demand or supply can immediately be translated to the best use of our resources, through a new operational plan.

Information is the key to creating alignment. Business processes are often originally designed with the organizational boundaries in mind. However, today's business is organized as a performance network. Information and processes cross multiple organizations. Information and processes are the only things that connect all elements in the performance network. And information needs to lead the way to avoid any surprises in the value chain.

Messaging, reports, dashboards, analytics, and other forms of operational and management information need to be available not only in the vertical sense -- *within* the organization (aimed at top management), but should be actively deployed *between* organizations. In many cases, the majority of information exchange taking place between organizations is a reality already.

In short, an IT strategy enabling management excellence should rationalize existing management systems, tightly integrate management systems with operational systems, and provide open access to relevant information to all stakeholders throughout the performance network.

Operational Excellence Paves the Way

Achieving operational excellence is a primary goal for all organizations. In a competitive world where customers have high expectation levels, without efficient processes and systems, and without a lean organization, no one can survive. Operational excellence is built upon three main drivers; cost, quality and speed. Table 1 highlights the key aspects of operational excellence.

THE KEY DRIVERS OF OPERATIONAL EXCELLENCE	
Cost	Higher margins increase investment capacity
Quality	Deliver best price quality ratio
Speed	Establish best in class value chain, transforming from lean to agile

Table 1: The key drivers of operational excellence

Operational excellence has two goals; first, to enable the organization to operate on the efficiency frontier[6]; and second, to free up resources (such as time, money and people) to invest in management excellence.

Operational excellence has become a "license to play". Companies need to operate on the productivity frontier. This frontier is the sum of all existing best practices at any given time, or the maximum value that a company can create at a given cost using the best available technologies, skills, management techniques, and purchased inputs. In other words, "get the most out of what you have". Cost, quality, and speed each needs to be optimal.

Regardless of strategy, driving down the cost per transaction or per business process is important. It enables offering the best price/value ratio. Optimizing working capital enables you to increase the investment budget to strengthen the company's competitive position.

Improving the quality to be able to offer the best price/quality ratio is essential to ensure customer satisfaction, retention, and loyalty. Reducing the failure rate cross all transactions and business processes requires continuous attention. Defects or deficiencies can be detected instantly, and corrective actions can be taken immediately.

[6] Porter, M.E. (1996) What is Strategy" *Harvard Business Review*, November-December 1996, pp. 61-78

Increasing the speed is crucial to not only build lean supply and demand chains, but in particular to move from a lean value chain to an agile value chain. This is critical to be able to adapt to or create best practices in the performance network today. Integrating a new supplier or channel partner must not take months; it should be done in a few days. Along the performance network, the information has to work seamlessly allowing all constituents to be up to date.

The second goal of operational excellence is to enable and support management excellence. The table below outlines how.

OPERATIONAL EXCELLENCE CONTRIBUTION TO MANAGEMENT EXCELLENCE			
	Cost	Quality	Speed
MANAGEMENT EXCELLENCE			
Smart	Lower price of information	Reliability, relevance	Timeliness, early warning
Agile	Higher turnover rate of change	Lower failure rate of change (higher first time right percentage)	Improved time-to-act
Aligned	Higher user/information reach per dollar	Higher accuracy and follow-up on commitments	Improved time-to-benefit

Table 2: Operational excellence contributing to management excellence.

In order to be smart, an organization needs to have insight into what is happening. If non-efficient operations make it impossible or too expensive to extract information, new insight will remain hidden in the market and within the operations. The operations should be trustworthy -- in today's business operations; there are often still many different versions of the truth. The data used to detect patterns and spot change needs to be reliable. A speedy operation is needed to make sure new insights are timely so that the organization can act on them early.

Operational excellence supports agility by enabling a more rapid rate of change -- current processes and systems should not be bottlenecks to strategy adjustments. Changes should only be made once to be effective throughout the complete organization so change must also be flawless. The process of change needs to be reliable too. Speed in operations also improves the time-to-act, which is the elapsed time between discovering a new insight and implementing it.

An operationally excellent environment makes it efficient to collect and share information. It becomes possible to provide access to critical information to all stakeholders in the value chain,

for the same investment. There is an abundant amount of research that shows that a shared view creates more alignment in the value chain, instead of what is often called the "bull whip effect". Speedy operations make sure that the time it takes to benefit from improvements, driving them all the way down to the customer, is optimized.

Operational Excellence and the role of IT

Business applications and middleware improve business processes in three ways. First, business processes must be automated as much as possible, with the least amount of human interaction. This ensures a situation that is cost-efficient, and provides high quality and fast processes. Workflows steer the human input and sign-offs. Second, business processes must be standardized, so that changes made are immediately available across the enterprise and wider value chain. Single-instance business applications provide a lower total cost of ownership, higher quality (less errors by processing a change only once), and higher speed. Lastly, business processes must be integrated. Supply chain (SCM) and demand chain (CRM) must be connected with the organization's resource management (ERP), in order to operate on the productivity frontier. An efficient set of business processes frees up the resources and the time to focus on other processes that provide competitive differentiation, mainly those around management excellence. Change management is a crucial competence to be able to change IT systems smoothly and quickly, in order to keep up with the pace of business change.

Technology Excellence Enables It All

As business innovation becomes increasingly dependent on technology, the IT needs of the business users continue to evolve and change. This also impacts the area of responsibility for IT. To provide technology excellence, the responsibility of IT appears to be evolving from choosing and supporting complete applications, to choosing an ecosystem of technology which will support the functionality and capabilities needed by each business area. IT is moving from a state of being the custodians of applications and infrastructure - providing what participants need currently - to being a supplier of tools and technology to enable the participants needs now, and into the future. As business moves at a faster pace, and business users become more technology savvy, IT must aniticpate the needs of participants, and enable them.

An effective IT strategy, fueling technology excellence, needs to be complete, open, and integrated.

A *complete* IT strategy supports *all* elements of the business; not only administrative systems, but also collaboration, decision-making, mobile needs, stakeholder relationship management, and business innovation. Moreover, a complete IT strategy goes beyond the IT department and is included in the business strategy. It describes for each business function how the business value of IT is being received, used, and is being leveraged by the business. The governance structure, as part of a complete IT strategy, goes beyond a mere steering committee, making technology excellence a joint responsibility. Business and IT are mutually aligned.

The value of IT has changed from just removing technological barriers to doing business, to being part of a strategy that creates options to fuel business requirements that are not even known yet. That is why an excellent IT strategy also needs to be *open*, anticipating the use of applications, technologies and devices that are not in use at the moment, or that users bring to the table, or that do not even exist today. Technology excellence cannot be measured based on return on investment on a project-by-project basis, or on multi-year programs, but must be measured on real options[7].

[7] A "real options"-based view on the valuation of anticipated future performance of the company (as part of assessing shareholder value), does not focus evaluating whether the company has the right strategy or not, but evaluates if the company is flexible enough to adapt to changing market circumstances. An organization's IT strategy is crucial in having that flexibility. IT strategy in this sense should be seen as a portfolio of investment opportunities that can be delayed, expanded, switched or contracted/abandoned when needed.

Having legacy systems interact with modern systems creates new challenges in building systems that are flexible. There are different ideas on how to best create the desired open and flexible environment. One idea introduced is to adopt SOA (Service Oriented Architecture) and work with services as opposed to prebuilt applications. Others include adopting Cloud Computing, using Software as a Service (SaaS), grid computing, using a suite of applications with customizations as required, or possibly include Mashups, and Crowdsourcing. The good news is that using some of these options will reduce the financial worries of owning the infrastructure, platform, and software (Grid Computing, SOA, and SaaS); the issue with not owning it is how to exercise "control".

New information from combining data and services in new ways should be shared with stakeholders. Technology excellence occurs when you can leverage what you have to create new, never-before-seen, decision support information throughout the value chain. Therefore, an IT strategy needs to be *integrated.* All components throughout operational processes and management processes need to be able to talk to each other. This fuels operational excellence (lower costs, higher quality, faster processes), and it drives management excellence. Seeing cause-and-effect relationships between processes provides new insights, agility is ensured by linking operational processes and management processes, and alignment is driven throughout a single set of data, meta data and master data. In addition, by using a well constructed, service oriented architecture, standards are employed, and when implemented properly, ensure components are reusable. Typically, this means that users can get the functionality and information that they need, when they need it, at a lower cost. If all services are drawing from the same data, then there will be less conversation about data quality, and more about new information.

The following table summarizes how technology excellence enables operational and management excellence. From left to right, the three attributes of technology excellence are listed and, from top to bottom, the three elements of operational excellence and the three elements of management excellence are listed.

TECHNOLOGY EXCELLENCE			
	COMPLETE	**OPEN**	**INTEGRATED**
MANAGEMENT EXCELLENCE			
Smart	Provide insight in internal and external data and events, create a wider radar screen	Grant access and collect data from a variety of internal and external sources	Disclose cause and effect relationships throughout the value chain
Agile	Provide processes and technology to drive integral change	Relate data and processes on the strategic, tactical, and operational level	Provide an action framework for all relevant constituents
Aligned	Provide the one version of the truth, and the complete version of the truth	Share with all stakeholders	Provide a standardized way of working; apply best practices throughout the value chain
OPERATIONAL EXCELLENCE			
Cost	A complete system offers economy of scale and a good cost/value ratio	Provide ability to leverage the systems you have already	Lower transaction costs between all stakeholders
Quality	A complete system, compared to a patchwork of local systems, provides less complexity	Offer ability to make use of best-of-breed technology components	In an integrated system, there are less conversion steps, and lower risk for errors
Speed	A complete system manages optimal throughput throughout the complete process	Leverage pre-built components, and speed up impementation time of new functionality	Integrated systems support the full process. Integrated processing instead of a batch for each system

Table 3: Technology Excellence enables Operational Excellence and Management Excellence

How Oracle Can Help

Having middleware that is the most complete, open, and integrated fuels future options. Middleware is the software layer that connects services, components, or applications and allows multiple processes, running on one or more machines, to interact across a network. Using middleware makes it possible to not only link your own systems, but also the systems of your suppliers, partners, customers and other stakeholders. Middleware helps create options for the future, being ready to connect to systems and link in functionality currently not even known to the organization.

Oracle Fusion Middleware 11*g* is the #1 application infrastructure foundation. It comprises a wide range of capabilities, including application server, business intelligence, business process management, collaboration, content management, data integration, identity management, and transaction processing. Oracle Fusion Middleware 11*g* enables enterprises to create and run agile and intelligent business applications, and maximize IT efficiency by exploiting modern hardware and software architectures. Oracle Fusion Middleware 11*g* is the only middleware available from any vendor that offers the following unique design principles:

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Next-generation productivity

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- Empowered information workers
- Seamless collaboration

Next-generation manageability

- Improved IT productivity
- Better run applications
- Data governance and controls

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Author: Frank Buytendijk, Toby Hatch, Thomas Oestreich

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

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