2012

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Abstract

The lack of alignment between IT and business strategy (strategic alignment) is believed as the main reason why some IT investments fail in creating appropriate business value. Though the importance of strategic alignment is indisputable, aligning IT with business strategy is not a piece of cake issue. A better understanding of strategic alignment perspectives is crucially needed as a guidance on how strategic alignment could be accomplished. In addition, while the difficulties faced by firms in accomplishing strategic alignment tend to be varied, organizational culture is one interesting factor that is still rarely studied on previous literatures. Therefore, this research aims to furtherly explore on strategic alignment perspectives and how organizational culture affects the way firms align their IT with business strategy. To fulfil that purposes, this research was conducted in four stages using focus group discussion in a state-owned enterprise in Indonesia. The initial stage aimed to understand firms' culture by determining the dominance of GLOBE's nine cultural dimensions. The following stage tried to identify firms' strategic alignment perspective based on Henderson and Venkatraman's theory. A measurement of strategic alignment maturity was conducted on the third stage by relying on Luftman's Strategic Alignment Maturity Model. The latter stage aimed to identify organizational culture impact on strategic alignment based on the assessments in previous sessions. This research concluded that: a) the firm adopts technology transformation perspective in achieving strategic alignment, and b) organizational culture has various impacts on strategic alignment maturity.

Keywords: Strategic Alignment, Perspectives, Maturity, Organizational Culture.

1 INTRODUCTION

In recent decades, the role of IT in business has been significantly increasing. Along with the increasing role of IT, IT investment is unsurprisingly increasing as well. Unfortunately, this increase of IT investment is not always able to deliver appropriate business value (Roach, 1991). This failure led researchers to keenly find the missing link between IT and business as it may help to improve business values contributed by IT (Luftman, 1996). Henderson and Venkatraman (1993) argued that this failure is partially attributable to the lack of strategic alignment. They believed that IT would give its best contribution to business if there is an alignment between IT and business strategy.

Even though its concept has been around since 1980s, strategic alignment will always be a perennial business priority as long as IT is involved in business (Luftman, 1996). Strategic alignment is not a piece of cake to accomplish indeed as it always been a top-ranked issue faced by IT executives (Papp, 2001; Society of Information Management, 2003-2008). The difficulties faced by companies in achieving strategic alignment tend to be varied, depend on their objectives, incentives, cultures, or perception of values. Amongst them, organizational culture is an interesting factor to be intensively studied since it reflects employees' values and behaviour in achieving corporate objectives. Even though it has been proven that organizational culture impacts IT implementation, only few of them that linked cultural issues to strategic alignment maturity (El-Mekawy and Rusu, 2011). Hence, a more focused view on organizational culture impacts on strategic alignment maturity is certainly required.

Prior to that, understanding the importance of strategic alignment will be meaningless if it is not followed with efforts to achieve the strategic alignment itself. Thus, understanding company's strategic alignment perspective also becomes an important concern in this research. Furthermore, a measurement to strategic alignment maturity level is needed to determine the extent at which companies have aligned their IT with business strategy. Maturity measurement results will be useful for evaluating and determing next steps to be taken for further improvement of strategic alignment. Specifically, the aims of this research are to: (1) identify organizational culture by measuring the dominance of each GLOBE's cultural dimension (2) understand perspective adopted to achieve strategic alignment, (3) measure company's strategic alignment maturity, and (4) understand the impact of organizational culture on strategic alignment maturity.

This paper is arranged as follows. We first consider several theoritical foundations related to this topic. After that, we present our methodology, consists of research methodology and research instruments. Next, we elaborate our analysis concerning those four objectives. The results and the implications of this research are concluded in the last part of this paper.

2 THEORITICAL FOUNDATIONS

2.1 Strategic Alignment Concept and Perspectives

The concept of strategic alignment has been extensively discussed in numerous studies since 1980s and started to be firms' main concern in 1990s (Brancheau *et al.,* 1996). Basically, strategic alignment consists of the term "alignment" and "strategy". Concerning the term alignment, Lederer and Mendelow (1989) defined it as a coordination achieved when corporate information systems strategies is derived from the organization strategy and is represented in three domains: content linkage, timing linkage and personnel linkage. On the other hand, strategy is defined either as objective (Reich and Benbasat, 1996), plan (Teo and King, 1997) or formulation and implementation (Henderson and Venkatraman, 1993). All in all, strategic alignment refers to the degree to which business strategy supports and is supported by IT in such harmonized way (Luftman and Brier, 1999; Luftman, 2000; Sabherwal and Chan, 2001). One of the founding father's model in strategic alignment is Strategic Alignment Model (SAM) proposed by Henderson and Venkatraman (1993). It has been widely accepted and validated for its good conceptual and practical values (Avison *et al.,* 2004). SAM is constructed from two basic dimensions: *functional integration* and *strategic fit,* and four domains: *business strategy, IT strategy, organizational infrastructure and processes*, and *IS infrastructure and*

processes. *Functional integration* represents integration between business domain and IT domain whereas *strategic fit* links internal domain with external domain. This approach conceptualized that strategic alignment is achieved when interaction occurs between at least three of the four domains. Based on this concept, four perspectives in achieving strategic alignment are identified, termed: (1) *Strategy Execution*, (2) *Technology Transformation*, (3) *Competitive Potential*, and (4) *Service Level*. The first two perspectives use business strategy as the driver whilst the following two perspectives arise when companies use IT strategy as enabler. In *Strategy Execution* perspective, business strategy becomes an anchor domain that determines the design of organization structure and IS infrastructure. Conversely, *Technology Transformation* perspective is not constrained by current organization design. In this perspective, any changes in business strategy must be adjusted prior to the change of IT strategy and IS infrastructure. On the other hand, *Competitive Potential* perspective concern on how IT strategy can affect business strategy to encourage the restructuring of organization infrastructure. Alternatively, *Service Level* perspective views that IT is not necessarily affecting business strategy even though it is used for supporting business process. The detailed comparison between those four perspectives are listed in Table 1 as follows:

Criteria	Strategy Execution	Technology Transformation	Competitive Potential	Service Level
Driver	Business strategy	Business strategy	IT strategy	IT strategy
Role of Business Management	Strategy formulator	Technology visionary	Business visionary	Prioritizer
Role of IT Management	Strategy implementor	Technology architect	Catalyst	Executive leadership
Performance Measurement Criteria	Cost/service center	Technology leadership	Business leadership	Customer satisfaction

Table 1.   Strategic Alignment Perspectives (Henderson and Venkatraman, 1993)

2.2   **Strategic Alignment Maturity Model**

Questioning why strategic alignment is important is no longer being the real concern today. It is more significant to understand how strategic alignment could be achieved and matured. However, several previously developed strategic alignment frameworks (Rockart and Short, 1989; Hammer and Champy, 1995) were lack in explaining how strategic alignment could be nurtured. Luftman (2000) provides a more comprehensive framework in assessing strategic alignment maturity, named Strategic Alignment Maturity Model (SAMM), through six criteria as described in Table 2.

SAMM's Criteria	Description
Communication	Represents constant exchange of ideas, information and knowledge between IT and business to ensure that both parties have fully understood the strategy, priorities, processes and environmental organizations required to obtain results desired. *Communication* maturity is measured based on understanding of IT by business and vice versa, inter/intra organizational learning, protocol rigidity, knowledge sharing, and liaison effectiveness.
Value Measurement	Represents IT management ability in using measurement to illustrate IT contribution to the organization, in ways that are understood by the business management. *Value Measurement* maturity is measured based on IT and business metrics, balanced metrics, service level agreements, benchmarking, formal assessments, and continuous improvement.
Governance	Represents the process of delegating IT decision making in management and the way business and IT managers in prioritizing and allocating IT resources. *Governance* maturity is measured based on business and IT strategic planning, organization structure, budgetary control, IT investment management, steering committee, and prioritization process.
Partnership	Represents the relationship between IT and business, includes IT involvement in determining business strategy, the trust built between them, and how each party valued the contribution made by the other party. *Partnership* maturity is determined based on business perception of IT value, role of IT in strategic business

	planning, shared goals, risk and rewards, IT program management, relationship style, and business sponsor.
Scope and Architecture	Represents IT ability in providing a flexible architecture, evaluating and implementing the technology, enabling and controlling the business process, and providing solutions that can be customized to meet internal needs and customer needs. *Scope and Architecture* maturity is measured based on the role of IT systems, IT standards articulation, integration or IT architecture, architectural transparency and flexibility.
Skills	Represents all activities related to training, performance feedback, encourage innovation and provide employment opportunities. This criterion also includes IT readiness to change and ability to create new ideas. *Skills* maturity is assessed based on innovation and entrepreneurship, locus of power, management style, change readiness, career crossover, education and cross-training, and social environment.

Table 2.   Strategic Alignment Maturity Model's Criteria (Henderson and Venkatraman, 1993)

SAMM has been validated through assessments on 25 Fortune 500 companies and has been used by 50 companies during its first year after publication (Luftman, 2000). Based on those six criteria, this model classifies strategic alignment maturity into five levels, namely: (1) Initial/Ad-hoc Process, (2) Committed Process, (3) Established Focus Process, (4) Improved/Managed Process, and (5) Optimized Process.

2.3   Cultural Dimensions

In defining organizational culture, this paper relies on the definition provided by The Global Leadership and Organizational Behavior Effectiveness (GLOBE) Project (House *et al.,* 2001). Based on GLOBE's definition, culture is defined as motives, values, beliefs, shared identity and interpretation of certain events as a result of collective experience of its members and transmitted across generations. Based on the work on cultural values and practices from 17.300 middle-level managers of 951 companies in 62 countries, nine cultural dimensions were identified to differentiate organization from others as depicted in Table 3.

Cultural Dimension	Description
Power Distance (PD)	The degree to which organization's members understand the distribution of power.
Uncertainty Avoidance (UA)	The degree to which organization's member comply with social norms, rules and bureaucratic procedures to overcome future uncertainties.
Institutional Collectivism (InC)	The degree to which organization's practices encourage collectivity.
In-group Collectivism (IgC)	The degree to which individuals tie in and express their pride and loyalty to organization.
Assertiveness (AS)	The degree to which individuals within the organization be confident, offensive, and aggressive in social relationships.
Gender Egalitariansm (GE)	The degree to which organization attempts to minimize gender differences.
Future Orientation (FO)	The degree to which organization encourage future-oriented behaviors such as planning, future investment and delay gratification.
Performance Orientation (PO)	The degree to which organization encourages and appreciates innovation, high standards, and increased performance of its members.
Humane Orientation (HO)	The degree to which individuals and groups within the organization encourage and appreciate a good teamwork.

Table 3.   GLOBE's Cultural Dimensions (House et al., 2001)

In the GLOBE Project, each cultural dimension has two type of dominance that must be measured: dominance level in practices (as is) and dominance level that they expect to be (as should be). The 'as is' dominance level represents employees' perception about organizational cultural practice that occurs in companies today. In contrast, 'as should be' dominance level corresponds to employees' view of organizational culture as what they expect to be owned by company.

In relation to strategic alignment maturity, several previous literatures have been trying to map GLOBE's cultural dimensions impacts on SAMM's criteria as listed on Table 4.

Criteria	COM	VAL	GOV	PRT	ARC	SKI
PD	PD↑ → COM↓ (Sørnes et al., 2004)	PD↑ → VAL↑ (Silvius et al., 2009)	PD↑ → GOV↑ (Sørnes et al., 2004)	PD↑ → PRT↓ (Sørnes et al., 2004)	PD↑ → ARC (?)	PD↑ → SKI↓ (Silvius et al., 2009)
UA	UA↑ → COM↓ (Silvius et al., 2009)	UA↑ → VAL↑ (Sørnes et al., 2004)	UA↑ → GOV↑ (Sørnes et al., 2004)	UA↑ → PRT↓ (Silvius et al., 2009)	UA↑ → ARC↑ (Png et al., 2001)	UA↑ → SKI↓ (Livonen et al., 1998)
InC	InC↑ → COM↓ (Silvius et al., 2009)	InC↑ → VAL↓ (Silvius et al., 2009)	InC↑ → GOV↑ (Silvius et al., 2009)	InC↑ → PRT↓ (Birgelen et al., 2002)	InC↑ → ARC↑ (Silvius et al., 2009)	InC↑ → SKI↓ (Silvius et al., 2009)
IgC	IgC↑ → COM↓ (Javidan and Carl, 2005)	IgC↑ → VAL (?)	IgC↑ → GOV (?)	IgC↑ → PRT↑ (House et al., 2004)	IgC↑ → ARC (?)	IgC↑ → SKI↑ (El-Mekawy and Rusu, 2011)
AS	AS↑ → COM↓ (El-Mekawy and Rusu, 2011)	AS↑ → VAL↑ (El-Mekawy and Rusu, 2011)	AS↑ → GOV↑ (El-Mekawy and Rusu, 2011)	AS↑ → PRT↓ (El-Mekawy and Rusu, 2011)	AS↑ → ARC↓ (House et al., 2004)	AS↑ → SKI↑ (El-Mekawy and Rusu, 2011)
GE	GE↑ → COM↑ (El-Mekawy and Rusu, 2011)	GE↑ → VAL↓ (Sørnes et al., 2004)	GE↑ → GOV↓ (Hofstede, 1991)	GE↑ → PRT↑ (Sørnes et al., 2004)	GE↑ → ARC↑ (Silvius et al., 2009)	GE↑ → SKI↑ (Javidan and Carl, 2005)
FO	FO↑ → COM↑ (Javidan and Dastmalchian, 2009)	FO↑ → VAL↑ (El-Mekawy and Rusu, 2011)	FO↑ → GOV↑ (Javidan and Dastmalchian, 2009)	FO↑ → PRT↑ (House et al., 2004)	FO↑ → ARC↓ (El-Mekawy and Rusu, 2011)	FO↑ → SKI↑ (El-Mekawy and Rusu, 2011)
PO	PO↑ → COM↓ (Walls, 1993)	PO↑ → VAL↑ (El-Mekawy and Rusu, 2011)	PO↑ → GOV↑ (El-Mekawy and Rusu, 2011)	PO↑ → PRT↓ (El-Mekawy and Rusu, 2011)	PO↑ → ARC↑ (Birgelen et al., 2002)	PO↑ → SKI↑ (Birgelen et al., 2002)
HO	HO↑ → COM↑ (Javidan and Dastmalchian, 2009)	HO↑ → VAL↓ (House et al., 2004)	HO↑ → GOV↓ (El-Mekawy and Rusu, 2011)	HO↑ → PRT↑ (Javidan and Dastmalchian, 2009)	HO↑ → ARC↓ (El-Mekawy and Rusu, 2011)	HO↑ → SKI↓ (El-Mekawy and Rusu, 2011)

Table 4.   Expectation of Organizational Culture Impacts on Strategic Alignment Maturity

PD↑ → COM↓ : higher *Power Distance* is expected to lower *Communication* maturity

PD↑ → COM (?) : the impacts of higher *Power Distance* to *Communication* maturity is yet unknown

3 RESEARCH METHODOLOGY
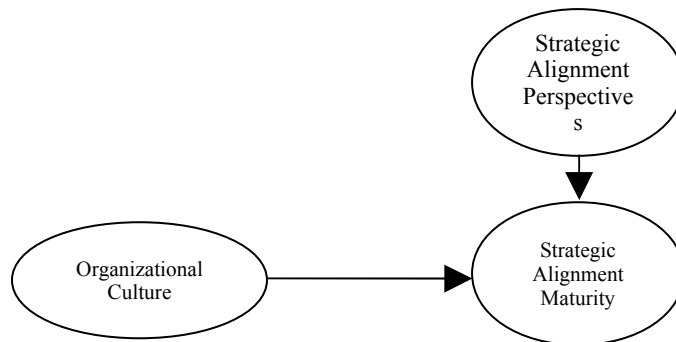
3.1 Research Model and Instruments

Figure 1.   Research Model

As illustrated on Figure 1, in general, this research was conducted in four stages as follows:

- **First stage: assessing the dominance of organizational cultures** – this stage consists of two assessments: measuring organizational cultures' dominance level in practice *(as is)* and in what the employees expect to be *(as should be)*. All questions asked through FGD in both assessments were constructed based on GLOBE's Alpha Questionnaire (House *et al.,* 2001). For *as is* assessment, 34 questions in total were asked, consisted of: 4 *Power Distance* questions, 3 *Uncertainty Avoidance* questions, 3 *Institutional Collectivism* questions, 5 *In-group Collectivism* questions, 4 *Assertiveness* questions, 4 *Gender Egalitarianism* questions, 3 *Future Orientation* questions, 4 *Performance Orientation* questions and 4 *Human Orientation* questions. Meanwhile, 41 questions were asked for *as should be* assessment, comprised of: 5 *Power Distance* questions, 4 *Uncertainty Avoidance* questions, 3 *Institutional Collectivism* questions, 6 *In-group Collectivism* questions, 4 *Assertiveness* questions, 5 *Gender Egalitarianism* questions, 4 *Future Orientation* questions, 5 *Performance Orientation* questions and 5 *Human Orientation* questions. The answers were rated on a seven point Likert-type scale that ranged from "strongly disagree" to "strongly agree". For each cultural dimension on each assessment, the score was accumulated and averaged to determine the dominance level.

- **Second stage**: **identifying strategic alignment perspectives** – in this stage, firms' perspective on strategic alignment were determined based on Henderson and Venkatraman's theory (1993) concerning about (1) the driver of organization structure and IT infrastructure, (2) the role of top management, (3) the role of IS management, and (4) performance criteria.

- **Third stage**: **assessing strategic alignment maturity** – assessment were conducted based on SAMM framework (Luftman, 2000) with 39 questions in total, consisted of: 6 questions concerning *Communication* maturity, 7 *Value Measurement* maturity questions, 7 *Governance* maturity questions, 6 *Partnership* maturity questions, 5 *Scope and Architecture* maturity questions, and 8 questions on *Skills* maturity. The items were rated on five point Likert-type scale with scale 5 represents the highest level of maturity.

- **Fourth stage**: **analyzing organizational cultures' impacts on strategic alignment maturity** – based on the data analyzed in the first and the third stage, an impact analysis was conducted by comparing to the previous literature studies and made justification for any difference existed.

3.2 Data Collection

This research is a qualitative research conducted in a state-owned enterprise in Indonesia. The data were gathered through focus group discussion (FGD), document studies and observations. FGD was conducted to six employees of IT Division with expertise in Operating Systems, Core Business and Supporting Application Systems, and Network and Data Communication. Selected respondents have worked for at least two years in IT division so they have adequate understanding about IT strategic planning process and implementation as well as the company's organizational culture. They also have

experienced cross-functional careers so their insights are not limited as IT employees only. On the other hand, document studies and observations were also conducted to support the objectivity of data collected in FGD. The documents consist of corporate management report, corporate plan and IT strategic plan. Observation was also used in this research to maintain the concept of triangulation.

4 ANALYSIS AND RESULTS

4.1 Analysis of the Dominance of Organizational Culture

The dominance level for each cultural dimension are summarized in Table 5 as follows:

Cultural Dimension	Dominance Level		Gap Difference
	As Is	As Should Be	
PD	2.5	4	-1.5
UA	5.33	4.75	0.58
InC	4.33	7	-2.67
IgC	5.8	7	-1.2
AS	1.75	1.75	0
GE	3.5	4.6	-1.1
FO	5.33	5.5	-0.17
PO	6.25	5.4	0.85
HO	6.75	7	-0.25

Table 5.   Findings on the dominance level of GLOBE's cultural dimensions

Power Distance (PD) – generally, PD score in practice *(as is)* is quite low, only 2.5 out of 7. This low score is partially contributed to the minimum social gap as the upper management tends to minimize the gap with their subordinates. Employees are allowed to freely express their opinions if any disagreement exists, regardless of their position. A persons' influence is not based on the power or the authority he/she has, one's ability and contribution to the organization is more significant. On the other hand, employees expected that PD should be more dominant, shown by the final score 4 for *as should be* assessment. It is due to the respondents' expectation that subordinates should be slight more respectful to their manager. Basically, they still thought that manager should be the one who makes the final decision, even though the decisions taken are in contrast with their opinions.

Uncertainty Avoidance (UA) – this dimension is quite dominating in the firm, shown by the final score 5.33 for *as is* assessment. This high score of UA shown that the firm already has a pretty good mechanism to cope with future uncertainties through high structurization of work, consistency in regulation enforcement and detailed job instructions and requirements. Conversely, employees were anticipating this dimension to be less dominant as they expected to have more freedom in doing their works using their own way. Thus, this dimension scored 4.75 for its *as should be* assessment.

Institutional Collectivism (InC) – the score for this dimension in practice is lower than what the employees expect to be (4.33 compared to 7) due to the different background of bonuses. While employees expect bonuses to be given based on team performance, firm gives bonuses to maximize individual interest. In addition, firms' appreciation to group cohesion is somewhat below employees' expectations. Based on the *as should be* assessment, employees apparently anticipate InC to be highly dominant.

In-group Collectivism (IgC) – this dimension is pretty dominant in practice by scoring 5.8 for *as is* assessment. Employees have actually had a good loyalty towards the firm and vice versa, but their loyalty has not reached the level to which they are not tempted to move to another company that has a better offer. Meanwhile, employees thought that it should be better to have a perfect dominance of IgC (scored 7 for *as should be* assessment) where the loyalty between firm and employees is indubitable.

Assertiveness (AS) – compared to others, AS is the least dominating one yet the only dimension that has reached the level of dominance in accordance with employees' expectations. Scored 1.75 for both

assessments, employees are neither being too aggressive, assertive nor dominated and somewhat independent. Even so, firms' current practice are thought to be adequate with employees' expectation.

Gender Egalitarianism (GE) – in practice, the score for this dimension is average, 3.5 out of 7. All respondents stated that both males and females have equal opportunity to have professional career even though the ratio between female and male employees are 1:2. Even so, they still adhere to traditional value such as physically demanding tasks should be performed by men instead of women. Meanwhile, they expected to have an equal proportion between female and male employees and, hence, resulted in a slight higher level of *as should be* assessment.

Future Orientation (FO) – through routine meetings, senior managements are used to remind their subordinates that success can be achieved through a proper future planning. Even so, they did admit that some meetings were sometimes improperly planned, resulted in lowering the final score for *as is* assessment. Inspite of having a better meeting preparation, employees also expected that success should not only be achieved by preparing a proper future planning, but also by being more opportunist. Thus, FO scored 0.17 point higher for *as should be* assessment rather than *as is* assessment.

Performance Orientation (PO) – the respondents thought that rewards provisioning are too performance oriented in practice and, hence, they tend to set targets that are more likely to achieve. At the beginning of each semester, employees have to make a work plan that will be evaluated by their supervisor at the end of the semester. Employees tend to set a less chalenging target since the rewards given are determined based on the evaluation result of the work plan. Employees expected that PO could be less dominance (*as should be* assessment scored 0.85 point lower than *as is* assessment) so that they could be more encourage to innovate and set a more challenging target.

Humane Orientation (HO) – by score 6.75, this dimension is the most dominant one amongst others. Employees considered that people in the firm are generally friendly, caring and kind hearted. The 0.25 point of difference referred to the sensitivity among others while employees expected that co-workers should be a little bit more sensitive than they are now.

4.2   Analysis of Strategic Alignment Perspectives

As IT Plan is developed based on five-year Corporate Plan, it is obvious that business strategy is firms' main driver where other functional units' strategy are derived from. According to FGD, corporate's IT Strategic Plan 2010 – 2014 and Consolidation Management Report 2011, it is inferred that business management plays role as *technology visionary* who determines technology vision that is appropriate for supporting the chosen business strategy. Moreover, in IT Plan document, it is obviously stated that one of principles in developing IT plan is "IT strategy has to be aligned with corporate's overall strategy". Meanwhile, IT management plays role as a *technology architect* that designs and implements infrastructure in accordance with the technology vision developed by business management. Referring to corporate's IT plan, IT has to provide solution for five critical business areas: operational automation, operational data storage, business digitalization, customer and employee management, and investament management. In measuring performance, firm uses *technology leadership* approach by conducting benchmarking to assess company's position in the same industry. Hence, it is concluded that the firms adopts *Technology Transformation* perspective in achieving strategic alignment.

4.3   Analysis of Strategic Alignment Maturity

The result of strategic alignment maturity assessment are summarized in Table 6. In general, firms' strategic alignment is considered to be quite mature, seen from the score 3.5 out of 5 for its maturity level. Referring to strategic alignment maturity level proposed by Luftman (2000), it can be inferred that the firm has achieved Level 3: Established Focused Process in which processes that take place have been focused to align business strategy with IT. From Table 5, we can infer that in order to improve strategic alignment maturity, firm needs to focus in enhancing communication and partnership maturity first as they are the least mature ones. Detailed explanations for each maturity criterion are as follows:

SAMM's Criteria	Maturity Level
Communication	3
Value Measurement	3.86
Governance	3.86
Partnership	2.83
Scope and Architecture	3.6
Skills	3.875
Average Maturity	*3.50*

Table 6.   Findings on Strategic Alignment Maturity

Communication – maturity level 3 for *Communication* reflects a fairly good understanding between IT and business. Business understanding for IT personnel is a must since IT is involved almost in all business processes. However, business unit still lacks in IT understanding as IT is only seen as a tool to facilitate their works. In addition, knowledge sharing has not be a routine and the communication between managers are usually occurred in ad hoc (no liaisons are used). Even so, communication occurs in such relaxed and informal way, though formal way of communication is still used sometimes through official memo. Firm also already has some formal and structured programs to facilitate organizational learning along with certificate and feedbacks for evaluation.

Value Measurement – both IT and business value have been well measured and conducted in a formal way. IT value is measured based on some technical measurements as well as Return on Investment and business value is measured based on Customer Satisfaction Index and customer feedbacks. An integrated IT-business value measurement also has been conducted yet the feedbacks given has not been used to assess the contribution per functional unit. Meanwhile, Service Level Agreement also has been implemented and benchmarking has been done with other companies in similar industry. In addition, continuous improvement and formal assesments also has regularly conducted in coordination with external partners.

Governance – firms' governance has been managed as well as its value measurement. Both IT and business strategy are already well planned shown by Corporate Plan that is composed regularly in every five years. Based on the Corporate Plan, a five-year budgetary plan and annual plan for each division are composed. Moreover, IT investment decisions are already well managed where decisions made based on the business values obtained. In contrast, Steering Committe has not played its optimal role since it's just established a half year ago. Indeed, prioritization in IT projects is quite poor as it is all decided by IT Division while business unit only gives some considerations.

Partnership – in general, business unit is highly supportive towards IT and already formally managing risks, together with IT. Meanwhile, IT starts to be seen as an asset but still plays role only as business process enabler in strategic business planning. However, the relationships between IT and business are still primarily transactional and maintained only when needed. Both IT and business unit has not tried to maintain a long term partnership each other and, hence, lowering *Partnership* maturity.

Scope and Architecture – all the IT systems have been well standardized and annually assessed by external party. IT architecture also has been integrated across the organization, reflected from the implementation of SAP, Document Management System and integrated Work Management Systems. Concerning about architecture transparency, any change made in architecture absolutely needs Directors' approval and has to be listed in firms' work and budgetary plan beforehand.

Skills – several trainings have been regularly conducted in the firm to improve its human resources' competencies, consist of: Corporate Leadership Training, workshop, on-the-job training, strengthening training, functional training, core competency development training, hard competency development, and pre pension training. In addition, career crossover is permissible and entrepreneurship is strongly encouraged.

4.4   Analysis of Organizational Impacts on Strategic Alignment Maturity

Compared to the previous literature studies in Table 4, our research found several differences (shown in highlighted cells) concerning the impacts of GLOBE's cultural dimensions on strategic alignment maturity. Those differences exist due to two primary causes. First, cultural dimensions are not solely impacting strategic alignment maturity. Indeed, they are influencing each other. As an example, in theory, firm with high level of InC is expected to have a lower *Communication* maturity as it indicates the less occurance of job-oriented communication (Silvius *et al.*, 2009). However, high InC, if it is followed by lower PD and AS, could gradually improve *Communication* maturity since low PD and AS facilitate informal communication and minimize the social gap.

Secondly, these conflicted cells are partially contributed to the differences in the research instrument used. While this research used a single case in qualitative approach, previous literature studies are mostly used quantitative approach with numerous firms, and, thus, the results are likely more general and objective.

Criteria	COM	VAL	GOV	PRT	ARC	SKI
PD	PD↓ → COM↑ (app)	PD↓ → VAL↑ (inapp)	PD↓ → GOV↑ (inapp)	PD↓ → PRT↑ (app)	PD↓ → ARC↑ (app)	PD↓ → SKI↑ (app)
UA	UA↑ → COM↑ (inapp)	UA↑ → VAL↑ (app)	UA↑ → GOV↑ (app)	UA↑ → PRT↑ (inapp)	UA↑ → ARC↑ (app)	UA↑ → SKI↑ (inapp)
InC	InC↑ → COM↑ (inapp)	InC↑ → VAL↑ (inapp)	InC↑ → GOV↓ (inapp)	InC↑ → PRT↑ (inapp)	InC↑ → ARC↑ (app)	InC↑ → SKI↑ (inapp)
IgC	IgC↑ → COM↑ (inapp)	IgC↑ → VAL↑	IgC↑ → GOV↑	IgC↑ → PRT↑ (app)	IgC↑ → ARC↑	IgC↑ → SKI↑ (app)
AS	AS↓ → COM↑ (app)	AS↓ → VAL↑ (inapp)	AS↓ → GOV↑ (inapp)	AS↓ → PRT↑ (app)	AS↓ → ARC↑ (app)	AS↓ → SKI↑ (inapp)
GE	GE↓ → COM↑ (inapp)	GE↓ → VAL↑ (app)	GE↓ → GOV↑ (app)	GE↓ → PRT↑ (inapp)	GE↓ → ARC↑ (inapp)	GE↓ → SKI↑ (inapp)
FO	FO↑ → COM↑ (app)	FO↑ → VAL↑ (app)	FO↑ → GOV↑ (app)	FO↑ → PRT↑ (app)	FO↑ → ARC↑ (inapp)	FO↑ → SKI↑ (app)
PO	PO↑ → COM↑ (inapp)	PO↑ → VAL↑ (app)	PO↑ → GOV↑ (app)	PO↑ → PRT↑ (inapp)	PO↑ → ARC↑ (app)	PO↑ → SKI↑ (app)
HO	HO↑ → COM↑ (app)	HO↑ → VAL↑ (inapp)	HO↑ → GOV↑ (inapp)	HO↑ → PRT↑ (app)	HO↑ → ARC↑ (inapp)	HO↑ → SKI↑ (inapp)

Table 7.   Findings on Organizational Culture Impacts on Strategic Alignment Maturity

app (appropriate) : reserach findings are in conformity with previous literature studies

inapp (inappropriate): research findings are in contrast to previous literature studies

<no description>: no previous literature studies to be compared with

***Communication* maturity** – as what has been mentioned before, low PD and AS facilitate communication to occur in more informal and intensive way. Low AS also helps IT-business collaboration to be more effective as both parties tend to be more inoffensive. Furthermore, high FO requires a more structured planning process and intensive communication is needed to meet those needs. Meanwhile, high HO in the company increases communication maturity since both parties encourage and appreciate the good cooperation. Though high InC is expected to lower *Communication* maturity due to the less occurence of job-oriented communication (Silvius *et al.*, 2009), if it is followed by lower PD and AS, high InC could gradually improve *Communication* maturity since low PD and AS facilitate informal communication and minimize the social gap. In addition, high UA is associated with the tendency to less stimulate informal communication (Silvius *et al.*, 2009). However, low PD could stimulate more communication to minimize uncertainty. On the other hand, high PO is anticipated to lower *Communication* maturity since organization with higher

PO will be more focused on individual performance rather than interpersonal relationships. Nevertheless, low PD facilitates employees to maintain a good and informal communication while they are focusing on their performance. makes out-group communication to be intertwined since it is needed to be able to provide optimal performance. Concerning about IgC, when IgC is highly dominating, an intense relationship only formed in in-group, but not out-group (Javidan and Carl, 2005). On the other hand, there is no significant influence of GE on *Communication* maturity since gender disparities are not impeding the communication process.

Value Measurement **maturity** – organization with high PD is expected to have higher needs of transparency, procedures, and reporting (Silvius *et al.,* 2009). In addition, organization with low AS tends to be less competitive so that formal assessments and performance evaluation are less emphasized (El-Mekawy and Rusu, 2011). High HO also tends to make value measurement to be less effective, influenced by the feeling of social obligation (House *et al.,* 2004). Moreover, value and performance are more appreciated in a more individualistic culture or low InC (Silvius *et al.,* 2009). However, a very high dominance of PO has strongly enforced formal value measurements to be done despite of the low PD & AS and high InC & HO.

Governance **maturity** – low PD and AS, supported by high HO tend to lead to informal governance (Sørnes *et al.,* 2004; El-Mekawy and Rusu, 2011). However, with the help of high InC, such condition will facilitate a better group accountability, thus, resulted in a better governance. In addition, high UA, FO, and PO also will help to reinforce a good governance. Meanwhile, the significance of IgC and GE in influencing governance maturity are still questionable.

Partnership **maturity** – partnership is based on trust rather than certainties, thus high UA is expected to lower *Partnership* maturity (Silvius *et al.,* 2009). In fact, this high UA is relatively insignificant in lowering Partnership maturity due to the low PD and AS. Informal communication and less aggressive personnel due to the low PD and AS help in developing strong foundation for a good and intensive relationship. Furthermore, individualistic culture (low InC) inclined to be more innovative and have higher level of trust to their partner (Birgelen *et al.,* 2002). Fortunately, with the helps of low PD and AS, and also supported with high HO and IgC, high InC could improve *Partnership* maturity as mutual trust between employee has been well-developed without the need to be overly individualistic. In addition, high PO inclined to have less shared vision and transparency and, hence, resulted in lowering *Partnership* maturity (El-Mekawy and Rusu, 2011). However, high PO takes no significant effect as the employee expect a lower PO. Their tendency to have a more team-oriented performance measurement rather than individual one shows that they still have shared vision. Hence, high PO didn't impact strategic alignment the way we predicted before. Moreover, low PD and AS facilitate in enabling transparency, despite of the high PO. Meanwhile, GE relatively insignificant to *Partnership* maturity as the gender disparities has been balanced with low PD and AS.

Scope and Architecture **maturity** – low GE tends to more appreciate individual performance and, thus, expected to have a lower *Scope and Architecture* maturity (Silvius *et al.,* 2009). Nevertheless, average dominance of GE tends to not significantly impacting maturity as employees already have a good understanding in overcome gender disparities. In addition, high FO is expected to lower architecture stability since the decisions made are future-oriented (El-Mekawy and Rusu, 2011). The same study expected that transparency and flexible architecture are easier to implement in a culture with low HO as it emphasizes more on self-oriented developments and evaluations. However, architecture stability could be maintained as high UA creates a tendency to be slower in adopting technology. In addition, low PD and AS helps to facilitate architectures transparency and high PO also plays a role in creating a more structured scope.

Skills **maturity** – high UA tends to lower the speed of individual learning process (Livonen *et al.,* 1998) as firm becomes more resistant to change and more cautious in making decisions, and, thus, restricting employees' to demonstrate their skills. However, due to the high FO, firm realizes the importance of improving employees' skills as a preventive mechanism to cope with future uncertainties. On the other hand, more individualistic culture are more open to change and to career development rather than the collective ones (Silvius *et al.,* 2009). Nevertheless, it is helped by high HO for more supporting self developments and evaluations. In addition, low GE tends to less generate

various ideas and individual skills (Javidan and Carl, 2005). However, firms' low GE is not because of the gender inequality in professional career support but it is attributed to the inequal gender proportion in management position and in doing physically demanding tasks. Moreover, low PD in less competitive environment allows employees to be more willing to take initiatives and sharpen up their skills. High dominance of PO and FO also encourage employee training to enhance their skills and high collectivity (either InC or IgC) make employees to become more open in sharing their experiences and knowledge so that they could be more skillful.

5 RESEARCH IMPLICATIONS

The main concern of this research is to understand the significance of organizational culture in influencing strategic alignment maturity. As impacts given by a particular cultural dimension is influenced by other dimensions, increasing dominance of a cultural dimension does not automatically increase/decrease strategic alignment maturity. In a similar vein, it can't be inferred that a better strategic alignment maturity is achieved when a cultural dimension becomes more dominant than before. In addition, organizational culture is not something that could be easily changed in a short period. Hence, a more focus on how to make the most of current organizational culture to nurture strategic alignment is more important rather than improving the dominance of particular cultural dimensions.

6 CONCLUSIONS

This research explores the impacts of organizational culture on strategic alignment maturity by beforehand assessing the dominance of GLOBE's cultural dimensions, determining strategic alignment perspectives, and assessing strategic alignment maturity based on SAMM framework. Concerning the dominance of cultural dimensions, it is found that the company's culture is highly dominated by humane orientation. Performance orientation dominates in the second place and it is successively followed with in-group collectivism, uncertainty avoidance, future orientation, institutional collectivism, gender egalitarianism, power distance and assertiveness.

Technology Transformation perspective is used in aligning IT with business strategy and firms' current strategic alignment maturity level is at 3.5 or, in a similar vein, has reached Level 3: Established Focused Process. This research also found that organizational culture gives various impacts on strategic alignment maturity. *Communication* and *Partnership* maturity are strongly influenced by culture that encourages informal and intensive relationship such as *Power Distance*, *Assertiveness*, *Future Orientation* and *Humane Orientation*. *Value Measurement* and *Governance* maturity are significantly impacted by cultures that can reinforce a formal, structured, and detailed planning, reporting, control and evaluation such as *Uncertainty Avoidance, Future Orientation* and *Performance Orientation*. In addition, *Power Distance, Assertiveness,* and *Uncertainty Avoidance* strongly influence *Scope and Architecture Maturity* in terms of maintaining stability and transparency. Furthermore, *Future Orientation* and *Performance Orientation* also gives significant encouragement in *Skills* maturity. Meanwhile, collectivity dimensions, *Institutional Collectivism* and *In-group Collectivism*, equally influence all strategic alignment maturity criteria by encouraging team work and supporting integration and openness. On the other hand, *Gender Egalitarianism* has no significant effect almost on all strategic alignment maturity criteria as employees already have a good understanding in overcome gender disparities.

7 LIMITATIONS

This research was conducted qualitatively in a single company, and, hence, all the conclusions drawn can't be generalized and are only applicable for this particular case. Since organizational culture is highly variable and more likely to be different one from another, it would be better to conduct this kind of research in quantitive way so a more general and objective conclusion can be drawn.

References

Avison, D., et al. (2004). Using and validating the strategic alignment model. Journal of Strategic Information Systems, 13(3), 223-246.

Birgelen, M., et al. (2002). Customer evaluations of after-sales service contact modes: An empirical analysis of national culture's consequences. International Journal of Research in Marketing, 19(1), 43-64.

Brancheau, J.C., Janz, B.D. and Wetherbe, J.C. (1996). Key issues in information systems management: 1994-95 SIM Delphi results. MIS Quarterly, 10(2), 225-242.

El-Mekawy, M., and Rusu, Lazar. (2011). Organizational culture impact on business-IT alignment: A case study of a multinational organization. In Proceedings of the 44th Hawaii International Conference on System Sciences, Hawaii, United States, p. 1-11.

Hammer, M. and Champy, J. (1993). Reengineering the corporation: A manifesto for business revolution. Harper Business.

Henderson, J. C., and Venkatraman, N. (1993). Strategic alignment: Leveraging information technology for transforming organizations. IBM Systems Journal, 32(1), 4-16.

Hofstede, G. (1991). Culture and Organizations: Software of the Mind. McGraw-Hill, London.

House, Robert J., et al. (1999). Advances in Global Leadership. 2nd Edition. Emerald Group Publishing, Bingley.

House, Robert J., et al. (2001). Project GLOBE: An introduction. Applied Psychology, 50(4), 489-505.

House, Robert J., et al. (2004). Leadership, culture, and organizations: The GLOBE study of 62 societies. Sage Publications.

Javidan, Mansour and Carl, Dale E. (2005). Leadership across cultures: A study of Canadian and Taiwanese executives. Management International Review, 45(1), 23-44.

Javidan, Mansour and Dastmalchian, Ali. (2009). Managerial implications of the GLOBE project: A Study of 62 societies. Asia Pacific Journal of Human Resources, 47(1), 41-58.

Lederer A., and Mendelow, A. (1989). Co-ordination of information systems plans with business plans. Journal of Management Information Systems, 6(2), 5-19.

Livonen, M., Sonnenwald, D. H., Parma, M., and Poolekober, E. (1998). Analyzing and understanding cultural differences: Experiences from education in library and information studies. In Proceedings of the 64th IFLA General Conference, Amsterdam, Netherlands.

Luftman, Jerry N. (1996). Competing in the Information Age: Practical Applications of the Strategic Alignment Model. 1st Edition. Oxford University Press, New York.

Luftman, Jerry N. (2000). Assessing business-IT alignment maturity. Communications of The AIS, 4(1), 1-51.

Luftman, Jerry N. and Brier, T. (1999). Achieving and sustaining business-IT alignment. California Management Review, 42(1), 109-122.

Papp, R. (2001). Strategic Information Technology: Opportunities for Competitive Advantage. IGI Publishing, Hershey.

Png, I. P. L., Tan, B. C. Y. and Wee, Khai-Ling. (2001). Dimensions of national culture and corporate adoption of IT infrastructure. IEEE Transactions on Engineering Management, 48(1), 36-45.

Reich, B. H., and Benbasat, I. (1996). Measuring the linkage between business and information technology objectives. MIS Quarterly, 20(1), 55-81.

Roach, S. S. (1991). Services under siege: The restructuring imperative. Harvard Business Review, 39(2), 82-91.

Rockart, John F. and Short, James E. (1989). IT in the 1990s: Managing organizational interdependence. Sloan Management Review, 30(2), 7-17.

Sabherwal. R and Chan, Y. E. (2001). Alignment between business and IS strategies: A study of prospectors, analyzers and defenders. Information Systems Research, 12(1), 11-33.

Silvius, A. J. Gilbert, De Haes S., and Grembergen W. V. (2009). Exploration of cultural influences on business and IT alignment. In Proceedings of the 42nd Hawaii International Conference on Systems Science, Hawaii, United States, p. 1-10.

Society of Information Management (2003, 2004, 2005, 2006, 2007,2 008). Available at
    http://www.simnet.org/

Sørnes, Jan-Oddvar, et al. (2004). The reflexity between ICTs and business culture: Applying
    Hofstede's theory to compare Norway and the United States. Informing Science Journal, 7, 1-30.

Teo, T., and King, W. (1997). Assessing the impact of integrating business planning and IS planning.
    Information & Management, 30(6), 309-321.

Walls, J. (1993). Global Networks. MIT Press, Cambridge.