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TRANSFORMING PHILIPPINE ITO FIRMS TO KNOWLEDGE INTENSIVE ORGANIZATIONS: ISSUES AND CHALLENGES

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Abstract: Globalization, decreasing cost of technology and ubiquitous broadband access have spurred new business models for outsourcing and organizing the value chains of organizations. In relation to the emergence of new business models, the Philippine ICT industry has been invigorated with the growth of its Business Process Outsourcing (BPO) sector. The Philippine BPO sector has generated billions in revenues, generated thousands of jobs and attracted foreign investment (*NEDA, 2011*). However, studies point to the "unsustainability" of a primarily export-oriented sector citing its susceptibility to external shocks (*Hanna, 2010*), lack of backward integration (*Ona et al, 2010; Magtibay-Ramos et al, 2007)*, and development of knowledge and skills at the low end of the value chain (*Dueñas-Caperas and Leitner, 2004*). To address the unsustainability of the BPO sector, a review of current trends and practices shows a burgeoning global demand for Information Technology Outsourcing (ITO) services (*BPAP, 2010*) and a shift from a mere transaction-based service firm to a knowledge-intensive business service (KIBS) firm (*Miles, 2005; Muller and Doloreaux, 2007*). This shift is believed to foster a more sustainable and strategically relevant ICT sector and is an ingredient in the creation of innovative products and services. Knowledge-intensive firms are often regarded game-setters, innovation-change leaders that drive the creation of new markets (*Muller and Doloreux, 2007*). Subscribing to the need for a shift in the current structure and practices of the Philippine ICT industry, we now ask the question, ***"What are the factors that can enable the transformation of local ITO firms to KIBS organizations?***" Using a single case study design (*Yin, 2003*), we identified the best practices of XYZ firm as a benchmark. The XYZ firm is a known KIBS innovator and is a recognized global leader in knowledge-intensive services. Developed as an evaluative study, our paper adopted a deductive research strategy, primarily using the SECI Model (*Nonaka and Takeuchi, 1995*) to identify themes and phases that can lead to the knowledge-intensive practices. The study was conducted through key informant interviews, participant-observation and document study, focusing on formal and informal practices. The findings of this research show that practices within XYZ are consistent with the SECI process. Mapping the different practices against the SECI phases, we were able to identify the enabling factors for knowledge-intensive practices.

Key Words: knowledge intensive organization; KIBS; knowledge management; SECI

1. INTRODUCTION

One of the drivers of growth in Asia is the ICT sector. Globalization, low-cost technology and broadband access have spurred new business models for outsourcing and organizing the value chains of organizations. Outsourcing has brought foreign investments to developing countries in Asia where infrastructure and labor cost less. In the Philippines, we have seen and enjoyed the benefits of the growth of the ICT industry. The influx of foreign investments has led to the generation of billion revenues and thousands of jobs (NEDA, 2011).

However, a closer examination of the Philippine ICT industry reveals that it is currently on an unsustainable path. Central to this developmental problem is the fact that the industry is primarily composed of contact centers. Several authors point to the unsustainability of the BPO industry. First, an export-oriented ICT industry dependent on external demand is susceptible to external shocks (Hanna, 2010). Second, an export-oriented ICT industry has low forward and backward linkages (Ona et al, 2010; Magtibay-Ramos et al, 2007). Finally, the knowledge and skills developed are located at the low end of the value chain (Dueñas-Caperas and Leitner, 2004).

Industry experts see promise in the burgeoning global demand for for ITO services (BPAP, 2010). We believe that this sector can provide an alternative and sustainable future for the industry. This shift will foster a more sustainable and strategically relevant ICT sector and is an ingredient in the creation of innovative products and services.

We believe that fundamental to the growth of the ITO sector is for local ITO organizations to transform to knowledge-intensive business service (KIBS) firms. KIBS firms exemplify the thesis that firms are knowledge-creating entities. KIBS firms are often regarded as game-setters and innovation-change leaders that drive the creation of new markets (Muller and Doloreaux, 2007).

Subscribing to the need for a shift in the current structure and practices of the Philippine ICT industry, we now ask the question, ***"What are the factors that can enable the transformation of local ITO firms to KIBS organizations?***"

2. METHODOLOGY

Given the objective, we have chosen to use a single case study design (Yin, 2003). Developed as an evaluative study, our paper adopted a deductive research strategy, primarily using the SECI model (Nonaka and Takeuchi, 1995) to identify themes and phases that can lead to the knowledge-intensive practices.

XYZ firm is a known KIBS innovator and belongs to of one of the world's largest providers of IT services. XYZ provides high value-add services to customers by providing

world-class 24x7 remote Enterprise Application hosting for SAP, Oracle, and Siebel applications. It provides highly standardized service offerings and is composed of roughly 250 people with strong backgrounds in technology and customer service.

We focused on practices within the Command Center (CC), Technical Support (TS) and Deep Technical Support (DTS) teams. We excluded practices within senior management and support staff. We collected data through key informant interviews, participant-observation and document study.

3. RESULTS AND DISCUSSION

Our interview with senior management confirms that XYZ does not have a formal knowledge management (KM) strategy or policy. Nevertheless, XYZ places a high premium on knowledge as its asset. The firm sells itself for the high availability of its services, supported by teams with strong technical expertise and customer service mindset. It continually expands its portfolio by engaging in projects that will build the expertise and branding of the firm. Hiring is also very selective. Therefore, although not fashioned into a formal strategy, practices within XYZ are geared towards knowledge creation and sharing. We provide a summary of these practices in **Table 1**.

There are practices which support strong **socialization** within the teams in XYZ. Formal practices for socialization include bootcamps, buddy system, weekly meetings and the four-eye check process. Informal practices include brainstorming, storytelling and after-office team dinners. We found that the nature of knowledge across the teams is heavily tacit. Given such, the varied venues for socialization ensure that knowledge is being shared within the teams.

Knowledge being exchanged in the socialization phase is also diverse. This can range from anecdotal stories, to simple *who's who* to important project know-hows. Domain of expertise being shared is also cross-functional as the process is not subject to strict controls and filters. For example, within XYZ, storytelling is an unbridled weaving of insights, technical expertise and anecdotal stories from personal experiences of the person sharing.

Externalization in XYZ is primarily an individual endeavor motivated by personal use or for sharing to a limited audience. Activities in this phase range from simple note-taking to sending a formal email summary of learnings to the team after the work shift. CC and TS engineers keep local copies and edit *how-tos* for their own personal use. CC engineers also share knowledge through an email practice of sharing their Duty Manager learnings. DTS engineers also create draft notes and training materials.

Knowledge in this phase is typically captured immediately after it was applied or used. This is a crucial phase because tacit knowledge which is not codified and reflected upon may be easily lost. This is seen in teams having to re-learn how a problem was previously solved through the inefficient practice of searching through mails or asking their colleagues. In XYZ, externalization is practiced as recording of events and actions. It is therefore not surprising that

knowledge in this phase is higly contextualized. For example, a *how-to* procedure may be specific to one customer or a problem and may need slight modification for application to another customer.

Combination ensues when knowledge captured on separate occasions, by different engineers and from unrelated events are consolidated and distilled into more generic and general-purpose medium. We believe that this is at the heart of the competency of XYZ and is an expertise-building phase. This phase does not simply produce a patchwork of different procedures and *how-tos* to solve problems but rather, service solutions which form the core of service delivery.

In the combination phase, knowledge from external sources also enter into and fuels the knowledge creation process. Expertise injected by different technology experts such as SAP and Microsoft provide invaluable addition to the knowledge in XYZ. This phase is typically the territory of DTS teams as fusion of in-house and industry best practices demands a higher level of expertise. Knowledge created in this phase is less contextualized than the knowledge in externalization phase and therefore the scope is wider in applicability.

Internalization occurs when the document is published in the central online repository and made available to the rest of the teams for study and reference. In this phase, the knowledge mobilized cater to different teams and roles. This phase also leads to the identification of experts as authors become de facto subject matter experts. Knowledge internalized by the different teams flow through the cycle again as socialization practices open opportunities for sharing tacit knowledge and the SECI process begins anew.

Table 1. Practices in XYZ firm mapped against the SECI phases

SECI phases	Description	Venues	Types of knowledge
Socialization (tacit to tacit)	Formal and informal activities support exchange of tacit knowledge	Bootcamps Buddy system Four-eye check process Weekly meetings Employee engagement activities Brainstorming and storytelling After-office hours team dinners	Project know-how Technical expertise Anecdotal stories “Who’s who” Personal experience
Externalization (tacit to explicit)	Primarily an individual endeavor motivated by personal use or for sharing to a limited audience Knowledge typically captured immediately	Duty Manager email Keeping and sharing of personal notes XYZ Wiki	Step-by-step procedures Records of events and actions done for a specific situation

Combination (explicit to xplicit)	Consolidation and distillation of knowledge into a generic and general-purpose medium Expertise-building Contribution of third-party technology experts	Project documentation Technical plans Best practice documents Central online repository Training materials	In-house best practices Industry best practices Service solutions
Internalization (explicit to tacit)	Application of codified knowledge Identification of experts in the team	XYZ newsletter Central online repository	How-tos Project know-how Service solutions

4. CONCLUSIONS

The findings give insight into the different knowledge-intensive practices within XYZ. We conclude that the practices are consistent with the SECI process. Mapping the different practices against each of the SECI phases, we were able to identify key enabling factors summarized in **Table 2**.

Table 2. Summary of factors enabling knowledge-intensive practices

SECI phases	Factors
Socialization	Culture of openness, trust, employee engagement and knowledge sharing
Externalization	Immediate capture of knowledge Process operationalizing knowledge codification
Combination	Network and partnership with technology experts Process operationalizing knowledge combination and synthesis Incentives and rewards
Internalization	Marketing Training and employee support Online repository

Socialization is set in motion when individuals interact with one another and exchange tacit knowledge. Such interactions best thrive in a culture of openness, trust, employee engagement and knowledge sharing. In fact our research revealed that despite the absence of individual rewards and monetary incentives for knowledge sharing, individuals were still enthusiastic to share because of a shared spirit of teamwork and collaboration.

In the externalization phase, we noted the importance of immediately capturing knowledge. This is because it is often too costly to recreate or repeat problems. Externalization practices can be further enhanced by formal or operationalized procedures for knowledge codification. The goal is to ensure that knowledge will be converted into usable and communicable formats as these will feed into the combination phase.

The combination phase is critical for building the expertise of a firm. This phase is where knowledge in the firm is validated or challenged by industry best practices. Partnership with technology experts is therefore an important factor. Because of the importance of this phase and the need for commitment of time and effort from the teams, incentives and rewards should be mobilized.

In the internalization phase, an online repository ensures accessibility and scalability. This can be complemented by marketing which can be used to generate interest. Training and employee support ensure that the individuals and teams in the firm do utilize the knowledge resources, thereby ensuring that the SECI process begins again.

For further research, we recommend exploration of the five conditions for knowledge spiral (Nonaka and Takeuchi, 1995) as they occur in the firm. Further research can also explore the implications of the knowledge-intensive practices to MIS policies and strategies.

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