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Cultural Complications of ERP

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Enterprise Resource Planning (ERP) systems have been the subject of considerable research [4] and media attention in the last few years. Much of this literature originates from and describes application contexts in North America, and to a lesser extent Western Europe, where most ERP developers are located and implementations have occurred. However, there are valuable lessons to be learned from implementation experiences in parts of the world with markedly different cultural heritages: for instance, a recent CACM article [9] discussed cultural misfits from a Singaporean perspective. A university in Hong Kong provides the specific operational context for this article. A number of cultural consequences associated with the widely-held assumption that an ERP system incorporates best practices will be discussed, viz: access to information, the 'real' value of numbers and barriers associated with re-engineering and empowerment. These cultural consequences were identified as a result of comparing educational ERP system implementation practices in North America and Hong Kong. While these consequences are specific to Hong Kong and similar Chinese communities, they should stimulate ERP researchers, practitioners and consultants to take account of cultural impacts on ERP system implementation.

Consultants often recommend to organisational clients that an ERP system be considered to embody best practices in the way it organises data and processes. The justification for this recommendation is that it is expensive and resource intensive to modify the way in which an ERP system functions in order to make it fit existing organisational practices. Furthermore, when the ERP system is upgraded, the organisation will need to go through all the modifications again. Accepting the recommendation, however, means that an organisation needs to change (or re-engineer) its internal processes in order to match the processes of the ERP system. In North America and Western Europe, where most ERP developers are located, this may not be very problematic, since the developers build 'typical' organisational

processes and practices into their systems. However, in cultural contexts that embody organisational practices rather different to those encountered in North America or Western Europe, there can be significant problems associated with the re-engineering of local practices and processes, as is the case with the Chinese communities of South East Asia.

For instance, ERP systems are typically not geared to produce user-specific reports, since they are designed to function in an on-line, up-to-the-minute environment where reports are a thing of the past. However, such reports are often necessary in the bureaucratic societies of South East Asia for government departments and agencies, as well as internal process review and control procedures [cf. 9]. In Hong Kong, universities employ an order of magnitude more clerical staff in administrative offices than their North American counterparts – in part because of the substantial need to produce reports. Forms exist for every imaginable purpose, as well as many unimaginable purposes, all to be completed in triplicate or more. This paper-ridden and report-driven context provides many opportunities (or challenges) for re-engineering: one university noted in its IT strategic plan that "the administrative processes currently practiced in the university [need to] undergo a thorough review" and "any administrative process for which an IT solution is proposed should first be the subject of a re-engineering study" [2]. However, cultural preferences and practices make such re-engineering problematic at best, because of the implications for organisational change. Examples of these cultural preferences and practices are discussed in the following sections.

Access to Information

ERP systems are typically designed to be open systems, with all authorised users able to access most if not all parts of a system. In an open culture, where employees are trusted to use information responsibly, this works well, but in some cultures a much stricter control of access to information is mandated, often on a need-to-know basis. Changing this component of culture would be extremely difficult - for both end-users and management, neither of whom would be likely to feel comfortable with such a change. For example, in the Chinese business culture, information is often treated as an individual, rather than an organisational, resource [8]. Consequently, management information is typically only for managers - and may even exist only in their minds. Formal codification of this information inside an ERP system in order

that it can be accessed by many people would involve substantial changes to the culture of information and its personal value. Indeed, discretionary power is preserved through the delicate control of this critical information, which is made available selectively to subordinates instead of being distributed widely among organisational members [cf. 8].

Homonyms - The Real Value of Numbers

Homonyms - words that sound the same, yet have different meanings - are powerful agents of meaning in societies with tonal languages. ERP systems often generate ID numbers for entries in a system, e.g. employees, students, hospital patients, etc. Such numbers can have significant associations in the Chinese language. In Hong Kong, it is very typical that buildings have multiple floor numbers missing, and certain telephone and account numbers are highly sought out while others will not be used. While a six-digit set of numbers theoretically provides one million unique numbers, the usable number is much fewer - for cultural reasons. Two key numbers serve to illustrate: four and eight. In southern Chinese dialects (e.g. Cantonese, spoken widely in Hong Kong, as well as elsewhere in South East Asia and in overseas Chinese communities), 4 is a homonym for 'death', while 8 is a homonym for 'wealth' or 'riches'. In Hong Kong, car number plates with strings of 8s (or even Bs) can sell for a considerable price. 4s, on the other hand, are avoided like the plague. Other numbers such as 1 (homonym for 'must') and 2 (homonym for 'easy') provide additional opportunities. If an ERP generated an employee ID of 1224 – well, the employee would certainly request to have it changed – if possible to 1228.

Re-engineering and Empowerment

The re-engineering of organisational processes and the subsequent implementation of an ERP system also involves changes in job descriptions and required skills. Clerical employees usually need to be retrained with skills related to knowledge work, not pen-pushing. Furthermore, employees need to be empowered with the responsibility to make decisions. It is critical that they understand the system thoroughly, since any mistakes made will be perpetuated downstream with consequent chaos for processes (and people) elsewhere in the system.

However, empowerment is no easy task and culture plays a significant mediating role. People in a low power distance culture (cf. [7]), for example those

typical of North America and Anglo-American societies more generally, are likely to be more willing to take on new responsibilities, to accept authority and decision making powers. In cultures where power distance is much greater - Hong Kong and Singapore are but two examples - there is considerable reluctance to accept empowering initiatives [3] with respect to both physical and information-based activities. It is remarkable that many advocates of employee empowerment blindly assume that all employees will enthusiastically accept the responsibility for managing their own work - irrespective of local norms or cultural characteristics. However, it is essential that empowered employees develop the requisite skills and knowledge for efficient and effective decision making and accountability [cf. 5]. Thus, many clerical staff at the bottom of the hierarchy of a Chinese organisation feel much safer if they are told what to do: they know what is expected. Responsibility and accountability involve status, but status cannot be simply given to a person, particularly in a hierarchically structured context. The widely held belief in Chinese society that "all men are born unequal" [1] clearly contradicts the espoused beliefs of those founding the United States and cannot simply be ignored. Thus, status needs to be earned over time - duration of employment in Chinese society is often perceived to be a more reliable indicator of qualification than skills alone, and hence a more reliable basis for promotion [6]. Knowledge workers can be grown internally, but it is not a simple matter of promotion or retraining, as a shift in cultural values is required.

ERP systems have great promise for organisations, large and small. Several Hong Kong SMEs are implementing ERP solutions, though they are choosing an ASP-based solution. Awareness of cultural differences and preferences will certainly improve the assessment of ERP suitability and any subsequent implementation. This implies that a one-size-fits-all or one-business-model-fits-all approach is unlikely to be successful: developers and consultants need to adapt their products and services for different cultural markets.

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