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## **A Cultural Analysis of ERP-enabled Business Process Management Strategy and Governance in Indian Organisations**

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### **Abstract**

*Business process management (BPM) is a key issue for organisations, particularly in a global business environment. Enterprise Resource Planning (ERP) systems provide a viable means for managing business processes. In this paper we synthesise a framework for BPM strategy and governance and then report two case studies that explore the influence of national culture on BPM strategy and governance in India. One case study involves the Indian subsidiary of a multinational corporation (MNC) and the other an Indian manufacturing company that has recently established an overseas presence. The two case studies provide a deep understanding of how culture influences BPM strategy and governance differently within each organization and indicate the need for formal BPM strategy and governance practices to mitigate any negative influences of national culture in a global context.*

### **Keywords**

Enterprise Resource Planning Systems, Business Process Management, BPM Strategy, BPM Governance, India.

### **INTRODUCTION**

This paper reports a comparative analysis of the impact of culture on enterprise resource planning (ERP) system-enabled business process management (BPM) strategy and governance in two manufacturing organisations in India. The motivation for the study is multi-fold and is outlined as follows. ERP systems are comprehensive packaged software solutions which seek to integrate the complete range of business processes and functions of an organisation in order to present a holistic view of the business from a single information and IT architecture (Klaus, Rosemann and Gable 2000). Such is their pervasiveness that these systems are considered as “the price of entry for running a business” (Kumar and van Hillebergersberg 2000). Typically, the implementation of an ERP system includes the re-definition of the organisation’s processes. Business process re-engineering (BPR) has been identified as a critical success factor for ERP implementations in several studies (Finney and Corbett 2007). Whilst there is an abundance of literature on ERP and BPR, these studies are focussed on the implementation phase of the ERP system and the ongoing management of business processes beyond this phase remains relatively unexplored. It has been observed that the completion of an ERP system implementation is not the final goal but a starting point for ongoing activity and a significant proportion of ERP systems which have been installed are not utilised effectively (Yu 2005). Therefore systematic enquiry into the ongoing management of ERP-enabled processes is warranted.

BPM is defined as a “holistic organisational management practice, which requires top management understanding and involvement, process-aware information systems, well-defined accountability and a culture receptive to business processes. It is based on a process architecture, which captures the interrelationships between the key business processes and the enabling support processes and their alignment with the strategies, goals and policies of an organisation” (Rosemann, de Bruin and Power 2006). The concept of BPM is closely related to that of BPR with the primary difference being that the former emphasises ongoing improvement while the latter has become synonymous with radical one-off change (Armistead and Machin 1997). Extant literature on BPM tends to be fragmented with focus on specific operational aspects such as process ownership (Larsen and Klischewski 2004), process modelling (Bandara, Gable and Rosemann 2006) and performance measurement (Frolick and Ariyachandra 2006). Strategy and governance aspects of BPM have not been examined at a similar

depth. BPM strategy is defined as the linkage between the goals of an organisation and its business processes which therefore establishes the desirable behaviours associated with BPM. BPM governance is the articulation of this strategy through the establishment of roles, responsibilities and other mechanisms by which the desired behaviour, and in turn, the organisation's goals are achieved. Thus, BPM strategy and governance can be collectively viewed as the foundation layer of BPM in an organisation which sets the context for further operational decisions related to process management.

Furthermore, extensive research on the impact of national culture on ERP-enabled BPR (e.g. Davison and Martinsons 2002, Avison and Malaurent 2007) suggests that cultural considerations are necessary for successful project outcomes. However as the focus of these studies is limited to the implementation phase, relatively little is known about the impact of culture on ERP-enabled BPM strategy and governance. Moreover, the majority of these studies are focussed on China and South East Asia and the few reports of ERP-enabled BPR in India (Tarafdar and Roy 2003, Agarwal and Haleem 2003) do not provide rich insights into how and why cultural impacts are manifested. The leading vendor of ERP systems in the world, SAP AG, has acquired over 3000 customers in the sub-continent since it established a presence in India in 1996 (SAP India). The extensive deployment of ERP systems in Indian organisations coupled with the fact that there is an absence of systematic research into post-implementation issues provides an imperative for an enquiry into this phenomenon. ERP systems also provide a means for MNCs to coordinate their activities at a global level (Hawking 2007). Existing research suggests that national cultural differences have particular implications for the deployment of ERP systems by MNCs (e.g. Sheu, Yen and Krumwiede 2003, Olson, Chae and Sheu 2005, Carton and Adam 2003). The liberalisation of India's fiscal and trade policies in the 1990s has led to increased presence of MNCs in the country and a significant proportion of these uses ERP systems (SAP India). Thus there is a need to include both a locally owned organisation as well as the subsidiary of an MNC in this study in order to establish the relative influence of culture on ERP-enabled BPM strategy and governance in the two contexts.

Therefore the primary research question which this study investigates is - how does culture affect ERP-enabled BPM strategy and governance in locally owned organisations as compared to MNC subsidiaries in India? The study contributes to IS research and practice by investigating a pertinent phenomenon which has remained relatively unexplored at the present time. It builds on existing theory in BPM and culture and includes in-depth case studies in two organisations. The remainder of this paper is organised as follows. Following the introductory section in which the motivation for the study has been outlined, the research methodology is explained. In section 3 the concepts of BPM strategy and governance as well as culture are defined and operationalised. The fourth section of the paper provides a description of the two case-studies and an overview of their ERP-enabled BPM practice. This is followed by an analysis of these practices case-studies through the lens of national culture. The discussion section then presents the main findings and implications for research and practice, and the paper is concluded with limitations of the study and directions for future work.

## RESEARCH METHOD

The primary objective of this exploratory study is to understand how and why culture might influence ERP-enabled BPM strategy and governance in two different organisational contexts in India. Therefore case study was selected for conducting the research as it been identified as an appropriate method for conducting "how and why" enquiries into real world phenomena (Yin 2003). An extensive literature review was conducted to derive comprehensive definitions for BPM strategy and governance and culture. Following this, an interview protocol was developed to enable a systematic enquiry. The protocol consisted of both closed and open-ended questions – the former to ensure that responses are appropriately equivalent for purposes of cross-case comparison and the latter to provoke thought and dialogue in keeping with the exploratory nature of this study. Two case studies were selected with care to ensure that they are matched in key dimensions such as industry and product type, size and position in the market (Table 1) while differing in ownership as outlined in the earlier section. The first case study site (Ind-Co) is a wholly locally-owned and operated company and the second (MNC-Co) is the Indian subsidiary of a multinational company (MNC). This choice has enabled intra-case analysis to better understand the influence of culture in each organisation as well as inter-case analysis to compare the relative influence of culture. The unit of analysis in each case study was the ERP-enabled BPM initiative.

Dimension	Ind-Co	MNC-Co
Organisation Type	Locally owned and operated	Indian subsidiary of Japanese MNC
Sector	Private	Private
Industry Type	Manufacturing	Manufacturing
Product Type	Consumer Durables	Consumer Durables
Position in Market	First	Second
Growth in Net Profit in 2007-08	30%	23.4%
Number of Employees	3400 approx.	2500 approx.
Brand of ERP System currently in use	SAP	SAP

<b>Duration of ERP System Use</b>	5 years	7 years
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Table 1 Comparison of case study organisations along key dimension

Data collection included nine formal interviews at the first case study site and eight at the second. A conscious effort was made to include employees at senior and middle levels of management as well as staff at the operational level for purposes of completeness in understanding the BPM strategy and governance practice at each organisation as well as triangulation. The senior-most interviewee in each organisation was the managing director and other interviewees included divisional heads of finance and operations as well as middle-managers in areas such as sales, purchasing, payroll and logistics. Shop-floor personnel including warehouse staff and quality inspectors were also interviewed. The duration of each formal interview was between sixty and ninety minutes. This was supplemented by a greater number of informal interviews as well as observation of activity over several days. Extensive notes were kept of each interaction and interviews were audio-recorded wherever permission was granted. Appropriate documents, if any, were also scrutinised. Following the data gathering phase, the audio recordings and notes were transcribed. An initial analysis of the text was done using constructs from the BPM strategy and governance framework described in section 3.1. The findings are presented in section 4.2 and 4.4. Further analysis within each of these was carried out through further coding based on the dimensions of culture identified in section 3.2 and is presented in section 5.

## LITERATURE REVIEW

This section presents the theoretical underpinnings of the study. The concepts of BPM strategy and governance as well as culture are defined and operationalised.

### BPM Strategy and Governance

Business strategy is defined as an analytical management tool used for planning a future business path which addresses the internal and external business environment, the approach to competition, vision and allocation of company resources and which calls on strong commitment in its formulation and execution (Gartlan and Shanks 2007). By relating this to BPM for purposes of this study, BPM strategy is defined as the linkage between the goals of an organisation and its business processes which therefore establishes the desirable behaviours associated with BPM. The key components of BPM strategy include:

*Top management commitment to and engagement in process management* (Kohlbacher 2008, Rosemann *et al* 2007)

*Alignment between organisational and process objectives* (Rosemann *et al* 2007)

*Establishment of process-oriented organisational structure* (Kohlbacher 2008)

The term governance is synonymous with the exercise of authority, direction and control (Zingales 1997) and is intended to ensure an organisation's efficiency and effectiveness (Simonsson *et al* 2008). A widely-employed definition of I.T. governance is that it specifies the decision rights and accountability framework to encourage desirable behaviour in using I.T. (Weill and Ross 2004). For purposes of this study, BPM governance is defined as the establishment of process-related responsibility and accountability mechanisms with the objective of encouraging desirable behaviour in BPM. Thus BPM governance is the articulation of BPM strategy through the establishment of roles, responsibilities and other mechanisms by which the desired behaviour, and in turn, the organisation's goals are achieved. The key components of BPM governance are explained as follows:

*Establishment of process-related roles and responsibilities* (Kohlbacher 2008, Rosemann *et al* 2007) – Process owners and committees for key processes with duties and responsibilities need to be clearly specified. This includes specification of authority for providing inputs to and making process-related decisions and the specification of precise reporting structures. It also includes the rules for enforcement of accountability, definition of the corresponding penalty and reward systems as well as provision of guidelines for escalation of issues.

*Establishment of process definition and documentation* (Kohlbacher 2008, Rosemann *et al* 2007) – Processes need to be prioritised in terms of criticality to operations. At the very least highly critical processes need to be clearly defined, documented and made accessible for use.

*Establishment of process standards and quality assurance* (Kohlbacher 2008, Rosemann *et al* 2007) – Guidelines for conducting all BPM activity such as process modelling, communication, issue resolution and monitoring need to be established. Periodic reviews to manage the quality and currency of processes as well as the efficacy of the organisation's BPM practice need to be established. Metrics, which are in keeping with the organisation's strategic goals, must be established for each process. These may be either quantitative or

qualitative in nature but need be defined in such a manner as to enable ease of measurement. Performance must be monitored on a regular basis to ensure alignment with the overall BPM and organisational goals.

## Culture

Culture is defined as the collective programming of the mind that separates the members of one group or category of people from another (Hofstede 1980). At the core of culture are values which are defined as broad tendencies to prefer certain states of affairs over others (Hofstede 1980). These tendencies are manifested in rituals, heroes and symbols which are collectively represented by practices or behaviours. There are various levels of collective mental programming such as national, regional/ethnic, gender, social class, industry/professional, organisational/corporate and departmental. This focus of this study on BPM in Indian organisations is at the national level and henceforth the term “culture” refers to national culture unless otherwise stated. The study of national cultural differences and resultant implications for management has been dominated by the characterisation of culture along a variety of preordained attitudinal dimensions or predispositions to action. For the purposes of this study, two theories of national culture are synthesised and the resultant four dimensions deemed to be most appropriate for the study of BPM governance are presented in Table 2. These include the works of Hofstede (1980) and the GLOBE project (House *et al.* 2004).

Dimension of Culture	Source
Power distance	Hofstede (1980), (House <i>et al.</i> 2004)
Individualism - Collectivism	Hofstede (1980), (House <i>et al.</i> 2004),
Uncertainty Avoidance	Hofstede (1980), (House <i>et al.</i> 2004)
Performance Orientation	(House <i>et al.</i> 2004)

*Table 2 Dimensions of Culture*

Hofstede (1980) administered a questionnaire to and analysed the responses of 72,215 employees of IBM across 40 countries. From this analysis he developed four dimensions of culture viz. power distance, individualism, masculinity and uncertainty avoidance. Later, a fifth dimension, long term orientation, was added. Each observed country was scored relatively on an index ranging from 0 to 100 for each dimension. This work has dominated cultural studies in the information systems discipline (Myers and Tan 2002). The Global Leadership and Organisational Behaviour Effectiveness (GLOBE) research project (House *et al.* 2004) focuses on the relationships between national/societal culture, organisational culture and leadership. It involved 150 co-investigators who collected data from approximately 9000 managers in 500 different organizations in 3 different industry sectors in 61 countries. Nine dimensions have been identified and responses to questions based on these dimensions were sought from employees in three industry sectors across sixty two nations. The dimensions identified by the GLOBE project include uncertainty avoidance, power distance, societal collectivism, in-group collectivism, gender egalitarianism, assertiveness, future orientation, performance orientation, humane orientation.

The four dimensions of culture which have been deemed as appropriate for use as a lens to examine BPM governance are explained as follows:

*Power Distance* is the extent to which members of institutions and organizations within a country expect and accept that power is distributed unequally.

*Individualism* refers to loose ties between individuals as opposed to collectivism which indicates a tendency towards establishing strong ties with a given social network.

*Uncertainty Avoidance* is the extent to which the members of a culture perceive ambiguous or unknown situations as threats as opposed to opportunities.

*Performance Orientation* refers to the extent to which a society rewards innovation, quality and performance improvement.

## CASE STUDY DESCRIPTIONS

In this section an overview of the two case-study sites is presented together with a description of each organisation’s BPM strategy and governance using the framework outlined in section 3.1.

### MNC-Co

This organization manufactures and retails consumer durables. The company was initially established in Japan in the 1940s. Following the liberalisation of the Indian economy, a subsidiary was established in the early 1990s. It

trades as a private limited company and is placed in a leadership position within its industry, occupying the second position in terms of market share. From its very inception the organization has focused on innovative product design encapsulating the latest developments in technology as well as world-class excellence in customer service. In the early 2000s the lack of integration between the systems being used was identified as the primary cause for the absence of insight into initiatives across the organization, particularly in the deployment of resources that enabled/supported them. Various tactical and operational bottlenecks were also ascribed to the same cause. The senior management of the organization recognized the limitations of the existing way of working and its repercussions on the business and a decision to implement an ERP system was taken. The implementation was perceived as a moderate success with some teething problems such as lack of process discipline, remaining unresolved. In the mid-2000s a decision was taken at the headquarters in Japan to align the ERP systems at all the subsidiaries around the globe into a single instance. As a first step, high-level business processes standards were designed and communicated to the subsidiaries. The implementation of these standard processes and the technical configurations necessary were carried out in the Indian subsidiary by a team which included representatives from the Japanese headquarters, regional information systems (IS) division from Singapore and members of the local IS division. The following sub-section provides a description of the BPM strategy and governance practice at this organisation using the framework outlined in section 3.1.

#### ERP-enabled BPM Strategy and Governance at MNC-Co

*Top management commitment to and engagement in process management* – Apart from employees at different levels of management at the Indian subsidiary, the regional IS manager from Singapore who served as project manager for the global process standardisation initiative was also interviewed. Without exception, all the senior management interviewees expressed a deep commitment to BPM as well as a keen understanding of the advantages of adhering to global process standards. They also expressed their belief that every effort had been made to incorporate local needs with the global standards by collating a project team with global, regional and local representatives.

*Alignment between organisational and process objectives* – This was achieved through development of process key performance indicators (KPIs) which are based on overall corporate (KPIs) thus ensuring a linkage between the objectives of individual processes and the goals of the organisation.

*Establishment of process-oriented organisational structure* – During the implementation of the ERP system in the early 2000s, the structure of the organisation was transformed from functional to process orientation. This has been further reinforced during the global process standardisation project.

*Establishment of process-related roles and responsibilities* - The first task of the global process standardisation project team was to appoint a process owner for every core process identified at the global level. The process owner was responsible for defining the process, monitoring its ongoing performance and ensuring its alignment with the overall BPM, and therefore corporate, strategy. The identification of appropriate process owners posed a challenge. In the case of processes which did not change substantially as a result of the global initiative, the appointment of process owners was straight-forward as it was guided by the current role of the person concerned. However for processes which had been re-defined significantly at the global level the identification of process owners proved to be a challenging task. Ultimately the project team selected persons based on a combination of relevant factors such as domain expertise, ERP system expertise as well as availability and willingness to train other users. Each process owner was advised of the scope and nature of their responsibility including their role in the decision-making process. The reporting structures within each process area and issue resolution hierarchy was clearly outlined and communicated to all the concerned persons. Extensive documentation relating to process ownership definition and organisational reporting structures was prepared by the project team.

*Establishment of process definition and documentation* - Each process in the global standard was documented at the headquarters and conveyed to the subsidiaries. The process documentation (PD) contains high-level information about the process including a brief description and overview of task sequence, roles and data requirements. This was mostly represented in graphical form and used primarily for co-ordination between globally distributed subsidiaries of the organisation. The responsibility of producing more detailed process documentation was passed on to the process owners as this is more relevant for management of operational procedures. Our investigation revealed that detailed formal process documentation exists only where it is a regulatory requirement (e.g. manufacturing process quality certification). The owners of processes which are not governed by such regulatory requirements have not prepared any detailed formal documentation to date. It was also established that attrition rates in middle management were higher than at the operational level. The existing high-level documentation serves the purpose of informing newly- recruited process owners of their domain. Since most operational level employees have been with the company from its inception, there is a high level of process expertise which is not dependent on (or affected by the lack of) formal documentation.

*Establishment of process standards and quality assurance* – As mentioned earlier, global standards were established for core processes at a high level and communicated to process owners of the subsidiary organisation via the project team. These appear to have been enforced at the level of interaction between the various global subsidiaries. However there are no standards for detailed definition of processes whose impact is limited within context of the Indian subsidiary alone. Likewise the process KPIs mentioned earlier have been defined for high-level process outcomes which have an impact on global reporting requirements. However this does not filter through the organisation and there is an absence of explicit process-focussed metrics and monitoring programmes at the operational level. Lack of process discipline had been identified as a teething problem during the initial implementation of the ERP system. These had been resolved through training programmes which served to educate operational staff about the need to adhere to specified processes. However, following the global process standardisation initiative, process indiscipline has re-surfaced with operational staff reverting back to the old ways of working and devising work-arounds to cope with the modified processes in the ERP system. While management is aware of this issue, concrete action to address it has not been taken to date.

## **Ind-Co**

This organization operates in the manufacturing industry and is a market leader in a diverse range of consumer durables. It commenced manufacturing operations in the 1955 and prides itself on a range of innovative products with a number of patent and design registrations. The company has achieved its leadership position in the domestic market primarily due to its ability to provide high quality products at affordable prices. All products meet global standards such as ISO9001 for both design and quality. The management believes that the company owes its survival to a fundamentally progressive philosophy which, while emphasising the organisation's essentially Indian identity, is also receptive to flexibility and change in the way of working to keep pace with changing times. In the early 2000s the organisation underwent a shift in focus. Having established itself as the significant player in the domestic market, the company started to explore export opportunities and after due consideration a subsidiary was established in the USA. At the same time the hitherto underlying value discipline of product innovation was perceived to be insufficient for the strategic plans outlined for the future. An emphasis on operational excellence was introduced to complement brand and design capabilities. An ERP system was identified as the appropriate I.T. solution to support operational efficiency and was implemented across the organisation. The introduction of the ERP system resulted in the erosion of functional silos and the organisation was restructured as a process-centric enterprise. The following sub-section describes the BPM strategy and governance practice at this organisation using the framework outlined in section 3.1.

### **ERP-enabled BPM Strategy and Governance at Ind-Co**

*Top management commitment to and engagement in process management* – While top management is committed to the management of the ERP system, there is an absence of an explicitly defined BPM strategy. Instead, it is implicitly implied in the I.T. strategy and the ERP system is perceived as a technical project and is under the management and control of the I.T. department.

*Alignment between organisational and process objectives* – Process objectives are not explicitly defined and aligned with corporate goals.

*Establishment of process-oriented organisational structure* – During the implementation of the ERP system the structure of the organisation was transformed from functional to process orientation. This structure has been maintained since.

*Establishment of process-related roles and responsibilities* – Unlike at MNC-Co, an explicit BPM strategy was never clearly established at Ind-Co by senior management. Process management was assumed to be a part of the ERP system implementation project and fell under the overall responsibility of the IT department. Consequently process-related decisions tend to focus on IT rather than on business. Process-related roles are not explicitly established. Persons with operational responsibility for the various functions assumed charge of the related processes. This has resulted in considerable overlap in the case of cross-functional processes resulting in collective rather than individual responsibility and accountability. Wherever consensus is not achieved, familiarity with the ERP technology tends to dictate which person has the last word in decision-making. Reporting and issue resolution structures tend to follow a similar pattern.

*Establishment of process definition and documentation* – The average duration of employment of both middle managers and operational staff at this organisation is twelve years and attrition does not appear to be common enough for concern. During much of the past decade the organisation experienced phenomenal growth in the domestic market and for a period of three years in the late 1990s and early 2000s, an average rate of growth of 30% was achieved. This has been attributed firstly, to the expertise of the various functional managers and secondly, to the flexibility and responsiveness of the organisation's business processes. While these characteristics have served the organisation well during the growth phase, it has also encouraged a tendency to

rely on individual expertise rather than on well-defined processes. This is also accompanied by a tendency to abstain from locking-in process definitions for fear of making them rigid and less-responsive to change. The product quality assurance (QA) process and the payroll process were the only two areas within the organisation that had any kind of process-related documentation. The QA process documents were developed as part of the regulatory requirements for certification of product and design quality. The payroll process documents were prepared by the payroll manager on the basis of his own initiative rather than a directive from the organisation. These are rarely used to guide day-to-day operations.

*Establishment of process standards and quality assurance* – There is a marked absence of explicitly defined process standards. In terms of process documentation, those relating to the QA process are comprehensive and meet regulatory requirements. Graphical representations of the design and manufacturing process are detailed. However the lack of clearly established standards for documentation is evident in the payroll process documents which have been prepared by the payroll manager. The process descriptions are textual rather than graphical and minimalistic in nature. Many of the terms and expressions used are ambiguous and comprehensible only to the person who created them thus rendering them unsuitable for use by anyone else in the organisation. The investigation revealed that absence of explicit standards and documentation in the organisation has not hampered internal operations and dealings with local clients. These interactions are guided by consciously established social relationships and networks. However coordination between the employees in India and those in the USA became somewhat strained due to the lack of standardised processes and took considerable time and effort to overcome. Furthermore, structured quality assurance activity is not discernable and metrics to judge process performance are not explicitly defined. In the case of the payroll process documentation, which lists 8 core processes, the performance measure for every one has been expressed as “*timely action*”. There is no accompanying explanation as to what constitutes timely action. However this does not mean that activities are not monitored. Once again, the organisation relies on the expertise of its managers to track process performance and to identify shortcomings. Reviews are conducted on an *ad hoc* basis and in an informal manner. Furthermore, a fierce loyalty to the organisation and its leadership is evident and verbal recognition of achievement is considered sufficient reward for adherence to desirable behaviour. Lack of process discipline does exist however unless the action affects the outcome of the process it is not considered to be an issue. Furthermore non-compliance is not punished outright but gently discouraged.

## CASE STUDY ANALYSIS

The ERP-enabled BPM strategy and governance practices of the two case studies are now examined using the dimensions of culture identified in section 3.2 as a lens.

*Power Distance* is described as the extent to which members of institutions and organizations within a country expect and accept that power is distributed unequally. India exhibits a tendency for high power distance and the associated behaviours include emotional relationships between subordinates and superiors and the perception of the boss as a benevolent autocrat or parent (Hofstede 1980, House *et al* 2004). At MNC-Co, two separate trends were observed. At senior and middle management levels, there is a tendency towards a more impersonal management style. Many of the employees at this level are expatriates from other parts of the world and others are of Indian origin who have served as expatriate employees at various global locations. The relationship between these employees is largely short-term, formal and egalitarian. Asynchronous communication media such as email are used extensively. This is markedly different at the operational level of management at which employees establish emotional bonds with each other by virtue of long-term relationships. Subordinates look up to their supervisors for direction and appreciation. Issues are addressed and resolved in an informal manner through face-to-face conversation. It was also perceived that communication between superiors and subordinates sometimes suffers due to the high power distance. This communication mechanism is highly dependant upon the established relationship between the people involved and effective communication is at times overshadowed by respectful reticence and fear of loss of face. At Ind-Co, a strong emotional relation with one's superiors and the respect for authority and expertise is reflected in the accompanying desire to stand favourably in their opinion which in turn motivates compliance to organisational processes. Rather than enforcing penalties for acts of non-compliance, offenders are reprimanded by their supervisors and gently shepherded back into line much like in a parent-child relationship. Here again, communication is dependent on established relationships and is constrained by power distance.

*Individualism* refers to the strength of ties within a given social network. India exhibits a tendency towards low individualism or, in other words, collectivism (Hofstede 1980, House *et al* 2004). At the workplace the primary visible behaviour of collectivist societies is that personal relationships prevail over task rather than the other way around and occupational mobility is lower. At MNC-Co, employees are frequently moved across projects, often across geographical borders thus resulting in the formation of short-term relationships. An employee's relationship with the organisation as a whole is largely impersonal and, as mentioned earlier in this paper,



attrition rates are high in middle management. On the other hand, at lower levels of management at MNC-Co as well as throughout all levels of management at Ind-Co, employees identify themselves strongly with the organisation and perceive the fate of the organisation as being parallel to their own. This acts as a compelling motivator for performance. Stronger bonds are forged with members of the same functional unit and this provides the foundation for all work-related activity. Most employees tend to remain in the organisation once employed and the length of period of relationship further enhances its strength.

*Uncertainty Avoidance* refers to the extent to which the members of a culture perceive ambiguous or unknown situations as threats as opposed to opportunities. Members of low uncertainty avoidance cultures such as India exhibit a tendency for tolerance of ambiguity and chaos and are generally better at invention than at implementation (Hofstede 1980, House *et al* 2004). At both case study sites, ambiguity prevails over nearly every aspect of BPM and management of related activities is through individual expertise on an ad hoc basis. The only exceptions are the process at MNC-Co which require interaction with global partners are therefore standardised and documented with care.

*Performance Orientation* refers to the extent to which a society rewards innovation, quality and performance improvement (House *et al* 2004). India exhibits a tendency towards low performance orientation and associated behaviours include high value placed on relationships and loyalty and less emphasis on training and development, results and rewards. While both organisations conform to this tendency in varying measure, a marked deviation from theory is observed at both sites in one aspect. While theory suggests that organisations in India place less emphasis on results, this investigation revealed the contrary. Employees at both organisations, especially at the operational level, focussed on delivering outcomes over adherence to defined processes. This was achieved through high levels of task expertise and an ability to adapt and improvise without much regard for rules. The reward mechanisms in both organisations also tend to reflect the emphasis on results rather than processes.

## DISCUSSION

A number of broad trends have emerged through the analysis of the two case studies. Firstly, this study provides insights into the influence of culture on BPM strategy and governance practice in two types of Indian organisations. The analysis of both case studies indicates that the Indian cultural characteristics of high power distance, collectivism and low uncertainty avoidance have resulted in highly informal BPM governance practices. The findings related to power distance and collectivism corroborate those of a cross-cultural study on the influence of culture on BPR projects in India and the USA (Agarwal and Haleem 2004) which established that collectivism and high power distance exert a negative influence on the implementation of BPR projects in the Indian context. However, the same study also established that low uncertainty avoidance facilitates BPR. This is in contrast to the empirical evidence of this study which establishes that, in fact, low uncertainty avoidance results in a more casual approach to BPM governance with less emphasis on establishment of process roles, definition and standards.

The investigation further reveals that the introduction of global process standards at MNC-Co has had two discernable effects on communication styles within the organisation. Firstly senior and middle managers in the Indian subsidiary are constantly required interacting and maintaining pace with their global counterparts. This has fostered a tendency to exhibit more-western style work and communication practices at the inter-cultural level. This includes the development of explicit documentation and standards to facilitate common understanding. However, in the same organisation, lower level employees who interact only with their local peers exhibit tendencies towards traditional Indian work practices as at Ind-Co where there is a marked absence of documents and standards for communication. Instead common understanding is achieved through strength of relationship and familiarity with the situation. However in the absence of such a relationship and common understanding this contributes to bottlenecks in inter-cultural interactions at Ind-Co.

Furthermore, prior research on ERP system implementation in Indian organisations identified lack of process discipline (Tarafdar and Roy 2003). Both organisations in the present study also exhibited lack of process discipline although it is not perceived to be a threat to the organisation's overall performance. However this finding warrants further investigation into the issue to identify exact causes. At MNC-Co, this has been attributed partly to the gap between the globally-defined standard processes and the actual ones executed by the Indian subsidiary in its day-to-day operations. This is also in keeping with findings of prior research on ERP implementations which suggest that cultural misfits occur when ERP systems are implemented in Asian countries (Soh, Kien and Tay-Yap 2000).

The contributions of this study for research are three-fold. Firstly, as mentioned earlier in the paper, existing research on ERP and BPM is fragmented and focussed primarily on issues at the time of system implementation. This study provides insights into BPM strategy and governance practice after considerable time has elapsed

since the ERP system implementation. Secondly, the development of a BPM strategy and governance framework based on literature review has proven useful for the study of such practices in organisations. The framework facilitated systematic data collection and analysis. Thirdly, the majority of cultural studies in IS rely on the cultural dimensions of Hofstede (1980) alone. By including dimensions from other two other sources, this study has demonstrated a richer means of analysing the impact of culture on organisational practice. Although the impact of performance orientation on BPM strategy and governance has not been explicitly established in this study, the inclusion of this dimension from the GLOBE project (House *et al* 2004) has enabled the investigation into the case study organisations' approach to outcomes and rewards.

For practitioners, the comparison of BPM practice at a locally owned versus subsidiary of an MNC is enlightening. The desirable behaviour for senior and middle management at MNC-Co is determined by the need to comply with directives from the headquarters. This includes interaction with globally distributed colleagues. The experience of employees of Ind-Co in dealing with their American counterparts also highlights the need for more explicit communication and more formalised process management in cross-cultural interactions. Therefore one may conclude that Indian organisations seeking to establish international business as well as Indian subsidiaries of MNCs whose employees are required to interact with colleagues in a different cultural context should consider adopting formal BPM strategy and governance practice in order to reduce/eliminate the negative influence of Indian culture on their operations and to facilitate open and unambiguous communication between all parties.

## CONCLUSION

This paper makes several key contributions to the understanding of cultural influence on ERP-enabled BPM strategy and governance. It builds on existing research on BPM strategy and governance and culture and provides empirical insights into this practice. The findings of the study will be of use both to organisations in India as well as organisations in other countries which are required to engage with Indian ones by alerting them to the importance of designing explicit and formal BPM strategy and governance to mitigate the possible negative impact of cultural influences. A limitation of this study is that it focuses on a single cultural context. It is felt that the influence of culture on ERP-enabled BPM strategy and governance can be better understood by comparing practices in two or more culture contexts. This limitation of the current study helps to set the agenda for future research. An in-depth study of several organisations in India and Australia is currently underway and it is anticipated that the cross-national comparisons will explain the impact of culture on ERP-enabled BPM strategy and governance in a comprehensive manner. Furthermore the differences between a locally-owned organisation and the subsidiary of an MNC also motivates the inclusion of both locally owned/operated organisations as well as subsidiaries of multinational companies in both countries.

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