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Insights into the Evolution of BPM in Organisations

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Abstract

There is no doubt that Business Process Management (BPM) is of high interest to both academics and practitioners. Whilst there is a plethora of academic research focused on various aspects of BPM such as process modelling, process improvement and, process execution there is little that investigates BPM in its broadest sense as a holistic management practice. From a practical perspective this shortcoming is reflected in the on-going search for a "best-practice" approach to implementing BPM. Despite the emergence of prescriptive models that support this approach, this research challenges the notion that such a best-practice exists. The researchers use an existing BPM maturity model to show that the emphasis placed on critical aspects of BPM is different between organisations and over time. Furthermore, the research shows that a combination of contextual variables is likely to influence the how BPM evolves and matures within organisations. With this study the researchers raise important issues for future research including: What contextual variables influence the evolution of BPM in organisations? How do they do so? Are patterns of BPM evolution discernible? If so, what are they? Do some patterns lead to higher success or maturity in BPM initiatives?

Keywords

BPM, evolution, maturity

Introduction

Business process management (BPM) is emerging as an important management practice, providing organisations with a means of increasing competitiveness and sustainability in time of market uncertainty, increasing globalisation and constantly changing business conditions. Existing studies have investigated BPM practices within organisations primarily using exploratory research such as case studies. These studies have identified that many organisations and keen to progress BPM to higher levels of maturity but that few organisations have been able to do so successfully (Maull et al., 2003 and Pritchard and Armistead, 1999).

Anecdotal evidence suggests that the inconsistent use of terminology in the BPM domain makes it difficult for practitioners to understand and compare research in this area. This inconsistency is apparent in the range of definitions and applications of fundamental concepts such as the terms 'process' and 'business process management' (Lee and Dale, 1998; Nickols, 1998; Pritchard and Armistead, 1999). Within the context of this paper, the term BPM takes a holistic perspective as advocated by Pritchard and Armistead (1999). Similarly, 'end-to-end process' is taken to encapsulate what others may term core, common, key, critical, administrative, and similar such terms. The effect of inconsistent terminology is compounded by the lack of empirical measurement instruments resulting in a lack of common constructs and variables being identified and defined within the BPM domain. The researchers seek to overcome this shortcoming by using a previously developed BPM maturity model as a common platform from which to explore the progression of BPM within a number of organisations.

This paper is therefore motivated by our ultimate aim to investigate the evolution of BPM in organisations. Our initial proposition is that the emphasis placed on critical BPM factors varies between organisations dependent on the context of each organisation. First this paper provides a brief introduction to the BPM maturity model being used to underpin this study. Next the paper details the design of an exploratory survey used to investigate whether the emphasis placed on critical BPM factors varies between organisations and over time. The paper then explores the data from a number of perspectives including, the past and future emphasis an organisation places on the BPM factors, the structure of the BPM adopted, the year in which BPM was started and the (self assessed) success of the BPM initiative. A number of other demographics such as industry, organisational size, maturity, executive commitment and organisational disposition are also considered. In the next section we present a number of hypotheses as a guide for future BPM research into a holistic and contemporary BPM approach. Finally the paper concludes with a review of the limitations of the research to date together with a discussion of potential future research in this area.

Related Work

The use of maturity models to assess the progress of practices in a given area is not a new concept made popular in the early 1990's by Carnegie's Capability Maturity Model (CMM). Since that time maturity models have become common in the BPM domain as shown in Table 1. An underlying premise of many models is that there is one single best way of progressing to higher levels of maturity and that the same approach is useful in all situations. Despite the plethora of models based on these principles, there is little empirical evidence to support such an approach when taking a holistic-organisational approach to BPM.

Table 1: Examples of Maturity Models

Year	Model	Developer / Key Reference	Dimensions
2003	BPR Maturity	Maull, Tranfield and Maull	Business process re-engineering (BPR) programmes
2004-5	Business Process Management Maturity Model	Rosemann and de Bruin	Factors and capabilities critical to BPM as a holistic organisational practice
2005-6	Business Process Maturity Model	Curtis, Weber and Gardiner	Practices applied to the management of discrete processes
2006-7	Enterprise Process Management Maturity	Hammer	Management of process redesign projects

In their work Maull et al. (2003) study the evolution of BPR programmes from a natural as opposed to rational perspective. They study BPR programmes in 33 organisations defining 3 typologies of programmes including Strategic, Process and Cost driven programmes. Through their research Maull et al. contend that an organisation may begin from a process or cost focus but at higher levels of maturity they understand the importance of the strategic perspective. Rosemann and de Bruin (2005) have developed their model taking a strategic perspective of BPM as a holistic organisational management practice. At the heart of the model are 6 factors identified from existing literature as being critical to the success of BPM. They contend that how these factors combine to reach higher levels of maturity will be influenced by organisational context. The factors were further decomposed into a number of capability areas, each of which is separately assessed with no restriction on progression. Curtis and Alden (2006) take a prescriptive approach to process management. This model combines a number of process areas using either a staged or a continuous approach. Progress through the stages is dependent on all requirements of preceding stages being complete. Some discretion is allowed at lower stages using the continuous approach but this is largely around the order in which the process areas are addressed. Hammer (2007) also adopts a prescriptive approach to the management of discrete process re-design projects, defining a number of process and enterprise competencies. Hammer also requires that all aspects of a stage to be complete before progressing to higher stages of maturity. A recognised shortcoming of the universalistic approach adopted by Curtis and Alden (2006) and Hammer (2007) is they are more appropriate for relatively narrow domains but do not capture various aspects of an organisation sufficiently (Sabherwal et al. 2001)

Whilst we agree with the principle of maturity models in that there is value in being able to consistently measure progress using well defined and constructed variables we disagree with the notion of there being a single best way of progressing BPM. Rather we contend that the 'best way' to progress will be individual to an organisation, dependent upon the contextual environment at different points in time. This thinking is in line with research into BPM in the automotive and computer industries (Ittner and Larcker, 1997). We acknowledge however that it may be possible to discern patterns of BPM emphasis within groups of organisations that have similar contextual circumstances. We also recognise that *past* practice does not necessarily equate with *best* practice. Thus, we are motivated in this research to understand more about the evolution of BPM in organisations with a view to providing direction for future research in the BPM domain with regard to BPM as a contemporary management practice.

The BPM Maturity Model

During this research we have used Rosemann and de Bruin's (2005) BPM maturity (BPMM) model as a base from which to gather consistent and comparable data across a range of organisations. This particular maturity model was selected for a number of reasons. First, it was developed on the basis of BPM as a holistic and contemporary management approach – an interpretation of BPM that is consistent with the needs of this study. Second, on the highest level the model encompasses a number of factors identified by prior research as being critical to progressing BPM within organisations. On a lower level these factors are further defined by a number of capability areas identified during an international series of Delphi studies. Definitions of the factors and capability areas are available and provide a basis for consistent interpretation (Rosemann, de Bruin and Power, 2006). Finally, the model has previously been applied within a number of organisations by means of case studies including embedded surveys and workshops (Rosemann and de Bruin, 2004, Rosemann, de Bruin and

Hueffner, 2004, de Bruin and Rosemann, 2006). Additional details on the development of the model can be found in the references provided in this section and will not be discussed further in this paper. The factors and capability areas included in the BPMM are depicted in Figure 1.
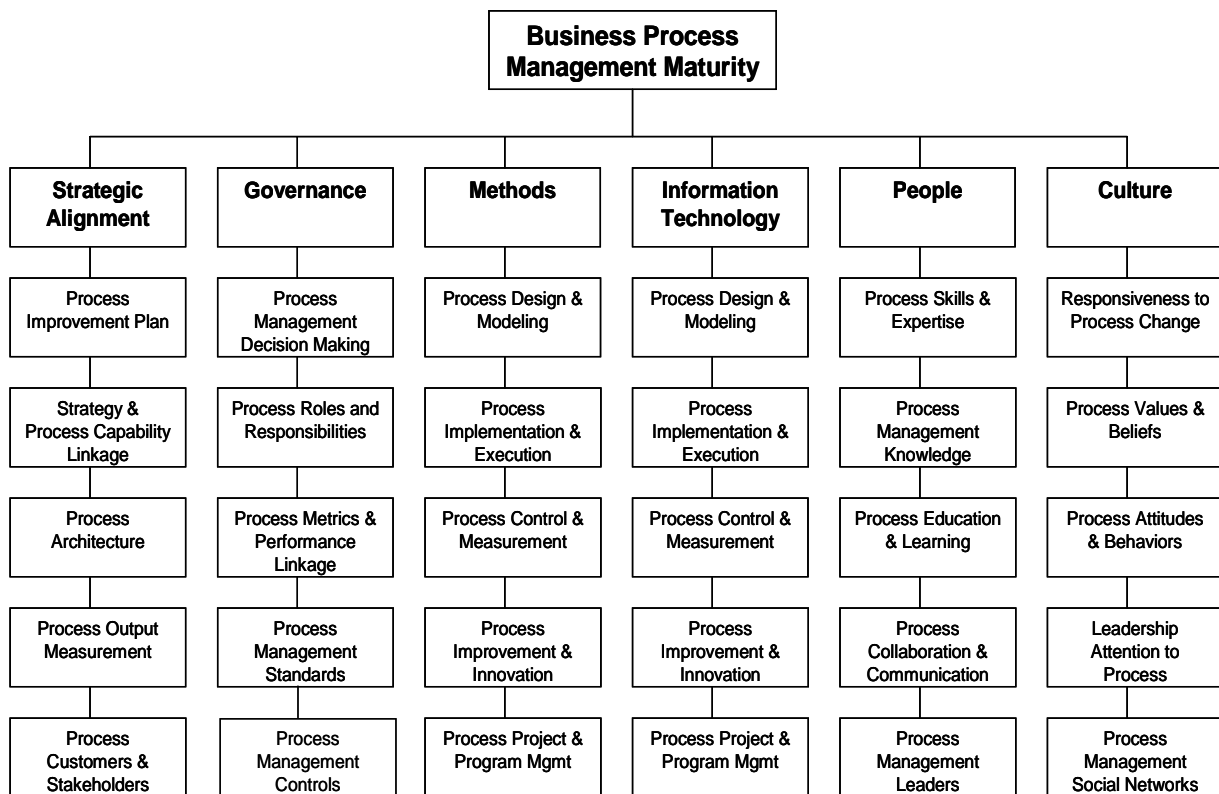
Business Process Management Maturity					
Strategic Alignment	**Governance**	**Methods**	**Information Technology**	**People**	**Culture**
Process Improvement Plan	Process Management Decision Making	Process Design & Modeling	Process Design & Modeling	Process Skills & Expertise	Responsiveness to Process Change
Strategy & Process Capability Linkage	Process Roles and Responsibilities	Process Implementation & Execution	Process Implementation & Execution	Process Management Knowledge	Process Values & Beliefs
Process Architecture	Process Metrics & Performance Linkage	Process Control & Measurement	Process Control & Measurement	Process Education & Learning	Process Attitudes & Behaviors
Process Output Measurement	Process Management Standards	Process Improvement & Innovation	Process Improvement & Innovation	Process Collaboration & Communication	Leadership Attention to Process
Process Customers & Stakeholders	Process Management Controls	Process Project & Program Mgmt	Process Project & Program Mgmt	Process Management Leaders	Process Management Social Networks

Figure 1: The BPM Maturity Model underpinning this research

Methodology

In this study we use an exploratory survey to investigate the proposition that BPM evolves differently within organisations. Our measure of difference in this instance is the relative emphasis an organisation places on each of the BPMM factors (i.e. Strategic Alignment, Governance, Methods, Information Technology, People and Culture) over time. This research is exploratory in nature and thus it was not our intention to gather sufficient data so as to enable rigorous statistical analysis. Furthermore, some would argue that using an *exploratory* survey limits the use of recognised qualitative methods for data analysis. Despite this we have still chosen this option over more traditional qualitative methods such as multiple case studies including data gathering techniques such as interviews and workshops. Our reason for this choice was largely pragmatic – we were looking for direction with regard to future research and wanted to get insights from a larger number of industry participants in a cost and time effective manner. We do not believe that the validity of our conclusions is an issue at this time because we are not drawing any conclusions as such – rather we are using our derived findings to highlight relevant and contemporary aspects of BPM that may inspire future research in the BPM domain. In the final sections of this paper we discuss this further by raising a number of hypotheses and further considering future research directions.

The unit of analysis for our study was organisations that: (a) have been practicing BPM (in some form); (b) were accessible to us; and (c) had a contact point that was highly knowledgeable of the BPM journey. Accessibility was important to us at this stage as we wanted the future ability to conduct deeper case studies with selected organisations. Having a knowledgeable central contact point was important as we recognised the shortcomings of having the survey completed by only one participant within each organisation and we wanted this person to be as informed about the BPM journey as possible.

We conducted the survey with a known group of 40 industry participants. We obtained data from 15 organisations throughout Australia. One survey was excluded from discussions in this paper because it was incomplete. A further 2 were excluded as they were completed by business-services companies and were potentially based on the perception of what clients were doing with BPM as opposed to BPM within their own organisation. And finally, 2 were excluded as the organisations were only just commencing their BPM journey

in 2007 thus it was too short a period to evaluate a change in emphasis on the various factors. The demographics for the remaining 10 organisations are reflected in Table 2.

Table 2: Demographics of Organisations

General Demographics				BPM Demographics				
Company	Industry	Head Office	Employees	BPM Start Year	BPM Structure	BPM Owner	BPM Success	BPM Maturity
R1	Utilities	Townsville	5500	1999	EW	CFO	7	8
R2	Government	Brisbane	2100	2006	EW	CEO	1	1
R3	Government	Brisbane	1200	2005	CT	CEO	5	4
R4	Utilities	Brisbane	800	1999	CT	Mgr - Corporate Development	3	3
R5	Government	Canberra	3000	2001	CT	Direct report to CIO	3	3
R6	Government	Canberra	2000	2005	CT	CIO	4	4
R7	Government	Brisbane	4000	2005	PB	CIO	3	3
R8	Government	Canberra	900	2004	PB	GM - Operations	4	2
R9	Government	Canberra	6500	2006	PB	CIO	6	2
R10	Utilities	Perth	2200	2003	AH	Project Manager	8	2

As can be seen, these organisations cover a range of head office locations and employee numbers as well as differing BPM structures and owners. The BPM demographics captured include: start year, structure, owner, success and maturity. *Structure* was pre-defined with options including: Ad Hoc, Project Based, Centre of Excellence and Enterprise Wide Program. *Success* and *maturity* were self-assessed using a 10 point scale with 1 being Low and 10 High. The respondents were grouped on the basis of BPM structure and numbered sequentially to ensure their identities remained confidential.

Following the demographic questions, the remaining questions in the survey formed three parts. In the first part we wanted to gather data that might provide insights into variables that influence the evolution of BPM. Thus we asked a number of open-ended questions about drivers and success measures of BPM and changes in the BPM initiatives that had occurred over time.

In the second part we wanted to explore two variables that we had identified from earlier case studies as being important to the progress of BPM in more detail. These variables were the level of executive commitment to BPM and the level of potential support for BPM amongst employees of the organisations (a.k.a. Executive Commitment (EC) and Organisational Disposition (OD)). We use these terms in our data analysis however did not depict these variable names within the survey, just grouped the questions that had been derived from existing literature in two sections. A lack of empirical studies in the BPM domain caused us to develop questions to measure EC from literature in a range of other domains covering executive and top management support and commitment. We then modified these questions in some instances to cover BPM as opposed to the other domain such as knowledge management or enterprise systems. We used the term OD to encapsulate the organisational climate and culture that could potentially influence the level of emphasis placed on critical BPM factors. Again due to the lack of empirical studies in the BPM domain, questions were derived from similar studies into organisational climate, employee empowerment and organisational culture in other domains looking at the adoption of management practices and then modified these for BPM. We recognise that having the EC and OD questions completed by only one respondent within an organisation raises a potential for bias in our data and that ideally such information should be gathered from more than one source to limit such bias. Our intention however was to explore further whether these variables appeared to be significant and worthy of inclusion in a further quantitative survey proposed for a future date. We were satisfied that the view of a single respondent knowledgeable of the BPM journey within the organisation whilst being limited was sufficient for this purpose.

In the final part of the survey we asked respondents to assess the *level of emphasis* their organisation had placed on the BPMM factors in the past, and that they were planning to place in the future. For these questions we used the definitions of the factors derived during the Delphi study series. We recognise a number of limitations to posing the questions in this manner. First, the time frames of *past and future* would vary dependent on how long the organisation had been doing BPM or how long respondents thought the future was. Again, we believed that the undefined timeframes were sufficient for our purpose as we had collected the BPM Start Year and could group the data accordingly. Second, the *level of emphasis* was subjectively determined by the respondents.

Having only one respondent within an organisation again creates the potential for bias however with the aim of the research being to guide future research rather than to build theory per se we do not believe this to be critical at this time.

Findings

As indicated earlier, we asked a number of open questions during the survey regarding the drivers, issues, success measures and changes in BPM initiatives that had occurred over time. Insights gained from responses to these questions are provided in the following two sections. Following on from this we consider the level of emphasis placed on the critical BPMM factors from a range of perspectives including the change in emphasis, the structure of the BPM initiative and the year in which the BPM initiative commenced. We summarise this section by proposing a number of testable hypotheses that could direct future research.

Success Measures, Success and Maturity

The first section of our survey included questions related to the success measures for the actual BPM initiative that was being undertaken. The two most common responses were (a) awareness and acceptance of BPM (7 responses) and (b) improved efficiency (5 responses). Other success measures identified each with only 1 mention, included: cost reduction, customer satisfaction, benefit realisation, standardisation, compliance, community image, improved effectiveness and improved alignment of processes with strategic business drivers. Specific details of how each of these was actually measured (i.e. by using an internal staff survey, by calculating ROI etc.) were not provided. This indicates that people may find it difficult to clearly articulate how to *quantify* the success of their BPM initiative.

In this section we also asked for indications of the perceived satisfaction of the organisation in attaining these success measures and the perceived maturity of the BPM initiatives using a 10 point scale. With two exceptions (R9 and R10) the scores for success and maturity are similar within an organisation indicating the potential for strong correlation between the two variables. Organisations R9 and R10 have project based and ad-hoc structures respectively. In both cases the success scores (6 and 8) were significantly higher than the maturity scores (2 and 2). This suggests that BPM success is possible despite low levels of maturity where the BPM initiative remains at a project level. An issue with such an approach is how to ensure the optimisation of process improvement projects across the organisation and thus minimise the potential for process tunnels being formed. Interestingly, respondents were asked whether formal assessment of BPM maturity was undertaken and in all cases the response was no. When combined with the lack of tangible success measures for BPM initiative this suggests that there is still much research to do in measuring both BPM success and BPM maturity.

Issues with BPM Initiative

The overwhelming issue with BPM initiatives can be summarised as Executive Buy-In. This is supported by responses such as: "keeping it in the CEO's and executive management team's head space", "senior management commitment and buy-in", "executive level understanding", "lack of senior management commitment", "executive buy-in" and "gaining the interest of and imparting understanding to senior management". Another major issue was seen to be the Organisational Climate/Culture as seen in responses such as: "buy-in from staff", "culture – resistance to change", "business ownership", "cultural change…to understand and apply the process approach" and "acceptance of BPM as a recognised business discipline". Other issues included: resourcing, lack of suitable skills and expertise, competing priorities and alignment with strategic goals.

Changes in BPM Initiatives

Six out of the ten organisations indicated that the purpose and value statement of the BPM initiative had changed over time to take on more significance within the organisation. This was reflected in comments such as: "from process modelling to process improvement", "initially it was to model processes to support ICT change initiatives, now it is to gain a full understanding of our business …to save costs, time, improve performance and react quicker to the changing environment" and "has moved beyond just process improvement to business transformation i.e. address cultural issues, team structures etc."

Emphasis – Past, Future and Change

We explored our data from a number of perspectives aiming to improve our understanding of the evolution of BPM in organisations. Initially we looked at all organisations on the basis of their levels of emphasis, past, future and the change between the two. We then broke this down into common clusters by considering organisations on the basis structure (i.e. enterprise wide, centre of excellence, project-based or ad-hoc) and the BPM start year. Within each of these clusters we considered the implications of demographic factors including

the (self assessed) levels of success and maturity, the levels of executive commitment and organisational disposition and the ownership of the BPM initiative. Insights from this exploration of the data are presented in the following sections. As noted earlier, our data was limited in that the past and future for each organisation potentially encompassed different periods of time. To negate the impact of this limitation we considered the **change of emphasis** between past and future rather than comparing the periods of past or future themselves. The results across all 10 organisations are in depicted in Table 3. It is clear from this table that the emphasis placed by organisations on each of the BPMM factors **varies over time**. It also supports our initial idea that the evolution of BPM **varies between organisations** as there is no 1 pattern of change that exactly matches another. By considering the data further we found evidence of several clusters or trends in the data suggesting **that patterns of BPM evolution may in fact be discernible**.

Table 3: Change in Emphasis

ID	BPM Start Year	Structure	Strategic Alignment	Governance	Methods	IT	People	Culture
R1	1999	EW	0	2	0	0	1	2
R2	2006	EW	9	9	9	9	7	7
R3	2005	CT	5	5	5	5	4	4
R4	1999	CT	1	1	0	4	3	3
R5	2001	CT	1	1	5	3	5	2
R6	2005	CT	0	0	0	3	0	1
R7	2005	PB	1	0	1	3	1	-1
R8	2004	PB	2	0	3	4	2	3
R9	2006	PB	2	1	2	4	2	2
R10	2003	AH	1	1	2	0	2	1

The identified clusters include: *Cluster 1* – R4, R6, R7, R8 and R9, *Cluster 2* – R2 and R3, *Cluster 3* – R5 and R10 and *Cluster 4* – containing only R1 which appeared somewhat different to all other companies. These clusters are depicted in Figure 2.
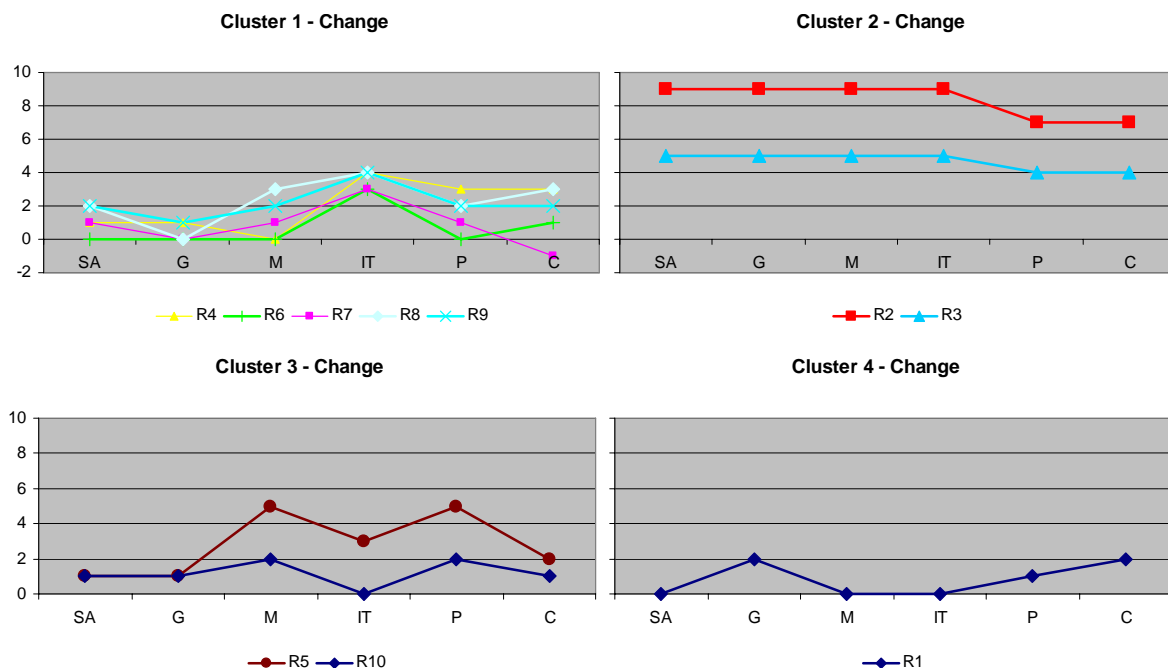

Figure 2: Clusters in Change of Emphasis for BPMM Factors

Only 1 organisation (R7) is planning to reduce the level of emphasis placed on any factor and even then it is only planning a slight decrease in the emphasis placed on 1 of the 6 factors. This indicates that organisations **continue to place emphasis on the BPMM factors on an on-going basis**. Despite this, the *change of emphasis* for each company indicates that **additional emphasis is selectively placed on different factors in response to some** (unknown at this time) contextual variable (e.g. R4 and R5).

Next we explored the data looking for possible commonality between the organisations in each of the clusters. First we looked only at the **past emphasis** placed on each of the BPMM factors. We found evidence of similar

clusters/trends in the data **strengthening the argument that patterns of evolution may be discernible** (although tempered by the recognised limitations of our study). We found support for notion that the evolution of BPM **varies across companies** as those that started BPM in the same year did not necessarily appear within the same cluster (e.g. C1/R9 and C2/R2 both started BPM in 2006, and C1/R4 and C4/R1both started BPM in 1999). We also found support for the idea that organisations may **deliberately target one or more of the factors** in response to (at this stage unknown) influencing variables (e.g. C3/R10 which placed a significant focus on IT and a more balanced emphasis to other factors).

Next we reviewed the *planned future emphasis* data and found that 3 organisations (e.g. R1, R2 and R3) plan to place equal emphasis on all factors whilst the remaining 7 organisations plan to continue putting different emphasis on individual factors. The demographics of the 3 organisations planning equal emphasis are shown in Table 4. It could be argued that for R1 such a strategy is evidence that a plateau has been reached, indicated by the high levels of *success* and *maturity* and an enterprise-wide approach, following which a more balanced emphasis on BPM factors is likely. This supports our notion that **organisations will reach a point where a more balanced approach to BPM is reached**. This finding however is tempered by our undefined use of *future emphasis,* perhaps reflected in the inclusion of R2 and R3, and thus requires further research. Interestingly R1 and R2 are the only 2 organisations with an enterprise wide BPM structure raising the possibility that this structure lends itself to a more balanced approach from the outset, again an issue that could be researched further.

Table 4: Demographics for R1, R2 and R3

Co.	Industry	Employees	BPM Start Year	Structure	Owner	Success	Maturity	Exec. Commitment	Org. Disposition
R1	Utilities	5500	1999	EW	CFO	7	8	4.20	4.00
R2	Gov	2100	2006	EW	CEO	1	1	2.40	2.86
R3	Gov	1200	2005	CT	CEO	5	4	3.40	3.14

Structure – Enterprise Wide, Centralised Team, Project Based and Ad Hoc

Next we explored the data on the basis of structure. In the *Ad-Hoc* structure we had only 1 organisation thus insufficient data to draw any real inferences. A review of the two *Enterprise Wide* organisations showed one had started its BPM initiative in 1999 and the other in 2006. When combined with our recognised limitation of the undefined time component this potentially explained the variance in emphasis within this group. It would have been good to compare the emphasis R1 placed on the factors at different points during the 8 years they had been doing BPM. This suggests that a research method that captures the entire BPM journey would be appropriate for further studies into BPM evolution. Despite this, there was clear evidence of clusters occurring in the remaining 2 structures – *Centralised Team* and *Project Based*.

We further considered the demographic data for the organisations within the *Centralised Team* and *Project Based* structures. We found that the *Centralised Team* organisations had a range of start dates as shown in Table 5. In this cluster, the two organisations with lower levels of Success and Maturity were also the only ones that did not have a CxO position responsible for their BPM initiative. These same two organisations had also been undertaking their BPM initiative for significantly longer periods of time (starting in 1999 and 2001 versus 2005) suggesting that **executive support for BPM initiatives is a vital element for achieving high levels of success and maturity**, a notion further supported by R4 recording one of the lowest scores for Executive Commitment.

Table 5: Demographics for Centralised Teams

Co.	Industry	Employees	BPM Start Year	Structure	Owner	Success	Maturity	Exec. Commitment	Org. Disposition
R3	Gov	1200	2005	**CT**	CEO	5	4	3.40	3.14
R4	Utilities	800	1999	**CT**	Mgr – Corporate Development	3	3	2.00	3.86
R5	Gov	3000	2001	**CT**	Direct Report to CIO	3	3	3.00	3.14
R6	Gov	2000	2005	**CT**	CIO	4	4	3.00	2.43

In the *Project Based* organisations shown in Table 6 there was less variance in the BPM start dates covering only the last three years. There was greater inconsistency between the Success and Maturity scores indicating

that (like the Ad-Hoc organisation) success in discrete projects does not necessarily translate to greater maturity. Again the organisation with the lowest Executive Commitment was the only organisation in the cluster that did not have a CxO responsible for the overall BPM initiative.

Table 6: Demographics for Project Based

Co.	Industry	Employees	BPM Start Year	Structure	Owner	Success	Maturity	Exec. Commitment	Org. Disposition
R7	Gov	4000	2005	**PB**	CIO	3	3	3.00	3.71
R8	Gov	900	2004	**PB**	GM	4	2	2.60	3.00
R9	Gov	6500	2006	**PB**	CIO	6	2	3.40	3.29

Year BPM Initiative Started

Finally we considered the data on the basis of the year in which the BPM initiative was started as summarised in Table 7.   We found little similarity in structure when considering the data on the basis of the year in which the BPM initiative was commenced. This suggests that organisations choose to adopt a distinct structure based on their own needs and circumstances.   For example, looking at those organisations starting their BPM in 1999-2001 the 2 organisations that are most similar (R4 and R5) both had a Centralised Team structure whereas R1 had an Enterprise Wide structure. In 2003-2004 there was an Ad-Hoc structure and a Project Based structure and in the 2006 year there was an Enterprise Wide and a Project Based structure. Similarly in 2005 R7 was Project Based whilst R3 and R6 were Centralised Teams.

Table 7: Demographics for Year

Co.	Industry	Employees	BPM Start Year	Structure	Owner	Success	Maturity	Exec. Commitment	Org. Disposition
R1	Utilities	5500	**1999**	EW	CFO	7	8	4.20	4.00
R4	Utilities	800	**1999**	CT	Mgr – Corporate Development	3	3	2.00	3.86
R5	Gov	3000	**2001**	CT	Direct Report to CIO	3	3	3.00	3.14
R10	Utilities	2200	**2003**	AH	Project Manager	8	2	1.40	2.60
R8	Gov	900	**2004**	PB	GM – Operations	4	2	2.60	3.00
R3	Gov	1200	**2005**	CT	CEO	5	4	3.40	3.14
R6	Gov	2000	**2005**	CT	CIO	4	4	3.00	2.43
R7	Gov	4000	**2005**	PB	CIO	3	3	3.00	3.71
R2	Gov	2100	**2006**	EW	CEO	1	1	2.40	2.86
R9	Gov	6500	**2006**	PB	CIO	6	2	3.40	3.29

In reviewing the demographic data with a focus on the year the BPM initiative was commenced we noted that all organisations that had commenced their BPM initiatives from 2005 onwards had a CxO position responsible for the overall success of the initiative – in 3 instances this was the CIO (R6, R7 and R9) and in 2 instances (R2 and R3) it was the CEO. This suggests that BPM initiatives with executive sponsorship may be becoming more common within government organisations although executive commitment is still perceived as being quite low suggesting that despite this sponsorship broader buy-in by government executives remains an issue. This situation was alluded to in response from one government respondent who indicated that despite having CEO endorsement, one of the main issues with their BPM initiative was "senior management commitment and buy-in".

Taken as a whole, the findings from each section (i.e. Emphasis, Structure, Year) support the notion that there are potentially discernible patterns of BPM evolution. However, they also confirm that there are additional variables or combinations of variables that influence and determine these patterns indicating that future research in this area would be valuable.

Testable Observations

The focus of this paper to this point has been on exploring the propositions that (1) BPM evolves differently within organisations and (2) that patterns of BPM evolution might be discernible. The data analysis process has also enabled us to pose a number of testable hypotheses that could form the basis of future research. These are discussed below using examples from the data to support their formation.

Organisation R1 was consistently different in a number of indicators including: Success, Maturity, Executive Commitment and Organisational Disposition. It was 1 of only 4 companies that had been doing BPM for longer than 5 years and 1 of only 2 companies that had adopted a company wide approach.

Hypothesis 1: High levels of both Executive Commitment and Organisational Disposition are required to reach high levels of BPM maturity.

Hypothesis 2: High levels of both Executive Commitment and Organisational Disposition are required to reach high levels of BPM success.

Organisation R4 started its BPM initiative at the same point as R1 however has not achieved similar high levels of success or maturity.

Hypothesis 3: The duration of the BPM initiative (by itself) is not a reliable indicator of BPM maturity.

Hypothesis 4: The duration of the BPM initiative (by itself) is not a reliable indicator of BPM success.

Organisation R10 recorded the lowest level of Executive Commitment and the second lowest level of Organisational Disposition despite high success in a past BPM project focused on IT. This suggests that the past success in an ad-hoc project has not materialised in broader support for BPM. A point confirmed by the Ad-Hoc nature of the current BPM initiative. This was also the only company that had a project manager being responsible for the BPM initiative. For all other companies responsibility rested with either Senior Management or Executives.

Hypothesis 5: High levels of success in Ad-Hoc BPM projects will not necessarily result in support for BPM.

Organisation R2 recorded by far the greatest level of expected change in emphasis in the future combined with the lowest level of Success and Maturity of all companies. This is perhaps not surprising given it had only recently commenced its BPM journey. Interestingly however, this respondent indicated that whilst it was implementing BPM as an Enterprise Wide approach one of its biggest issues was getting *"senior management commitment and buy-in"*. This suggests that whilst the support of the CEO is important to progressing BPM, in itself, it is not sufficient to guarantee broader executive commitment.

Hypothesis 6: Executive ownership of a BPM initiative (by itself) may not result in higher levels of Executive Commitment.

Conclusion, Limitations and Future Work

This paper presents the results of a preliminary research project undertaken with a view to exploring whether BPM evolves differently within organisations. This initial proposition was assessed by measuring the level of emphasis placed on different facets of BPM over time. The study found support for the notion that the emphasis placed on factors by an organisation was likely to be different across time. Furthermore, the study found that this emphasis was likely to vary between organisations but patterns of evolution may be discernible. BPM structure appeared to provide a reasonable cluster of such evolution although looking at the changes in past and future emphasis suggested that other (unknown at this time) variable might provide further explanation of these patterns. There was some suggestion that organisations continue to place emphasis on factors over long periods of time, but that there may come a time when a point of stability is reached following which a more balance approach to the emphasis becomes evident.

On a general level there is the potential limitation that all organisations included in this study were based in Australia. On a more specific level, there are a number of limitations surrounding the design and conduct of this research that were discussed in the Methodology section and these are summarised again here. In itself the nature of the study presents a limitation in that we were focused on exploration rather than statistical analysis of our data. As such, we compromised some aspects of survey design to best fit with our purpose. First, the survey was only completed by 1 person within each organisation despite some of the measures in the survey (e.g. executive commitment, organisational disposition, success and maturity) being better suited to a more wide-spread audience to limit personal bias. Similarly, the relative emphasis placed on each of the BPMM factors was assessed using only a single measure derived from the factor definitions derived during the development of the BPMM. Finally, we made no attempt to standardise the time component of BPM initiatives, simply referring to the *past* and the *future*.

Despite these shortcomings this research has provided a number of insights and has been useful in providing direction for future studies. On the one hand, whilst this research has shown that there may in fact be discernible patterns of BPM evolution we have not explored *how* and *why* these patterns might come to be or whether some patterns are more successful than others, and if so *why*? Therefore future research into the variables that influence BPM evolution and the organisations within which they exist is recommended. Such research might explore for example, the role that organisational culture or strategic management type has on the successfulness of the patterns. On the other hand, this research has been largely exploratory in nature with several limitations due to the aim of the actual research being limited to directional findings. Thus there is the potential to extend the research to test the identified, and other, hypothesis. With this in mind, we are currently undertaking more extensive case studies with selected organisations to gain deeper insights into their BPM journeys whilst also working to develop a quantitative survey instrument for application in a wider range of organisations. We intend to conduct this survey in a number of different regions working collaboratively with colleagues in these regions.

References

Curtis, B and Alden, J (2006). Business Process Improvement Guided by the BPMM, viewed 18th June 2007, http://www.bptrends.com/publicationfiles/11-06-COL-BPM%26OrganizationalMaturity-Curtis-Alden-Final1.pdf

de Bruin, T. and Rosemann, M. (2006). Towards Understanding Strategic Alignment of Business Process Management. Proceedings of the Australasian Conference on Information Systems. Adelaide, Australia. 6-8 December 2006.

Hammer, M (2007). The Process Audit. *Harvard Business Review*. April 2007, pp 111-143.

Hung, R. Y. –Y. (2006). Business Process Management as Competitive Advantage: a review and empirical study. *Total Quality Management, 17*(1), 2-40.

Ittner, C. D. and Larcker, D. F. (1997). The performance effects of process management techniques. *Management Science, 43*(4), 522-534.

Lee, R. G. & Dale, B. G. (1998). Business process management: a review and evaluation. *Business Process Management Journal*, *4*(3), 214-225.

Maull, R. S., Tranfield, D. R., and Maull, W. (2003). Factors characterising the maturity of BPR programmes. *International Journal of Operations & Production Management*, 23(6), 596 - 624.

Nickols, F. (1998). The difficult process of identifying processes. *Knowledge and Process Management*, 5(1), 14-19.

Pritchard, J.-P. and Armistead, C. (1999). Business process management - lessons from European business. *Business Process Management Journal*, *5*(1), 10-32.

Rosemann, M., de Bruin, T. and Hueffner, T. (2004). Testing a Model for Business Process Management Maturity with Two Case Studies. Proceedings of the Australasian Conference on Information Systems. Hobart, Australia. 1-3 December 2004.

Rosemann, M. and de Bruin, T. (2004). Application of a Holistic Model for Determining BPM Maturity. Proceedings of the AIM Pre-ICIS Workshop on Process Management and Information Systems, 46-60. (Actes du 3e colloque Pre-ICIS de l'AIM). Eds. J. Akoka, I. Comyn-Wattiau, M. Favier. Washington, D.C., 12 December 2004.

Rosemann, M. and de Bruin, T. (2005). Towards a Business Process Management Maturity Model. Proceedings of the 13th European Conference on Information Systems (ECIS 2005). Regensburg, Germany. 26-28 May 2005

Rosemann, M., de Bruin, T and Power, B (2006). A Model to Measure Business Process Management and Improve Performance, In: Business Process Management, J. Jeston and J. Nelis. Butterworth-Heinemann, Chapter 27

Sabherwal, R, Hirschheim, R and Goles, T. (2001). The Dynamics of Alignment: Insights from a Punctuated Equilibrium Model. Organization Science, 12 (2), 179-197.

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