Investigating Non-Decision Making during an ERP Software Selection Process

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Abstract

This paper proposes an alternate perspective to current research in terms of understanding the dynamics of an ERP software selection decision-making process, in that this paper builds on the theoretical framework proposed by Sammon and Adam (2002). We use the proposed model of the ERP Community (Sammon and Adam 2002) and attempt to understand how the substantive, institutional, and political factors, proposed by Caldas and Wood (1998) and Wood and Caldas (2000, 2001), impact an ERP software selection decision-making process. As a result, we highlight the existence of Non-Decision Making (NDM) within the ERP Community under study and identify various forms of Category Manipulation, in the context of relationships and interactions observed between the ERP Community actors. Furthermore, we present the actual outcomes of the ERP software selection decision making processes within the ERP Community under study, highlighting the impact of NDM. In conclusion, this research paper goes someway to validating the model proposed by Sammon and Adam (2002) and extends our thinking in terms of understanding the complexities of an ERP software selection process.

Keywords

ERP, Software Selection Process, Non-Decision Making, ERP Community, Category Manipulation

1. INTRODUCTION

"Given the cost and the permanent nature of ERP investments, an understanding of the way decisions are taken concerning the adoption, evaluation and selection of ERP software can be very useful for both academic research and practice" (Stafyla and Stefanou 2000). Over the past number of years, research has been conducted to help gain a better understanding of the ERP decision-making process (Shakir 2000) and assist managers considering an ERP project, by highlighting the critical issues involved in the software selection process (Stefanou 2000). From a review of research on the subject of ERP software selection and the decision making process associated, researchers have commented on the confusing nature of many recorded instances of ERP decision making (Sammon and Adam 2000, Sammon and Lawlor 2004) and the presence of political decision making (Shakir 2000, Sammon and Lawlor 2004). In addition, the preferences of managers are often vague and contradictory and it is not certain whether this is a result of poor ERP literacy on the part of the organisations decision makers or as a direct result of the influential directions of both the ERP vendor and ERP consultant (Sammon and Adam 2002).

This paper documents our initial observations of one case in an on-going study proposing to reframe current research on decision making processes in the area of ERP software selection. In this novel perspective, the core contribution of this research is to introduce and apply the concept of Non-Decision Making (NDM) to the area of ERP. The researchers' overall objective is to structure their ideas in the shape of a model of ERP decision making, incorporating both the ERP Community dimension (Sammon and Adam 2002) of ERP decision making and the ideas borrowed from the Non-Decision Making (NDM) literature. In proposing a framework to explain the key factors that frame managerial decision making on the ERP market, it can be observed that decision making in this domain is often characterised by weak rationales, limited understanding of key concepts and a high failure rate. Therefore, the researchers believe that the concepts that form the phenomenon described under the general heading of Non-Decision Making (NDM) will durably influence the investigation of the ERP movement. In particular, the researchers feel that analysing the ERP market as a network of actors with different interests, different techniques and different modes of interaction will foster novel ideas for improved pre-ERP preparation and analysis, improved ERP selection processes and, improved success in the implementation of ERP packages.

2. PROPOSED RESEARCH GAP

'Ignore history - condemned to repeat it' (Judge 1997, Webster 2000) seems to be an adequate statement when it comes to describing the mixed fortunes of organisations deploying Information Systems (IS) and researchers approaches to studying these IS evolutions. This may be due to the fragmentation of research in IS as described by Blanville and Landry (1989) and Adam and Fitzgerald (2000). Indeed, Lucas (1991) suggested that, as a field, we need to think about interesting problems and look for underlying issues rather than focus on today's 'hot topic' to keep up with the latest IS fashion. Therefore, addressing the suggestions of Kraemer and Dutton (1991) and Land (1995), the objective of this paper is to build upon existing research carried out in the area of Enterprise Resource Planning (ERP), therefore, emphasising a 'continuity of ideas' and constructing a 'cumulative' body of research.

It has been argued that the stage of theory development in the area under investigation is a benchmark upon which the broad objectives of a research study may be set. Esteves and Pastor (2001) have categorised the available ERP literature in terms of the phases in an ERP implementation lifecycle, from adoption to retirement, and have highlighted opportunities for further research in each phase. However, the amount of academic research relating to ERP is small, relative to the rate of ERP adoption by organisations, the scale and complexity of ERP project implementation, the sophistication of an ERP package, and the size of the ERP market. Most of the available literature is recent and originates from a small number of sources and the majority is concerned with the ERP implementation phase, while focusing little attention on the ERP software selection decision making process. The level of understanding presented in the literature, of the issues surrounding ERP, is in the early stages of the management fashion lifecycle (Abrahamson 1991, 1996) and remains, to a large extent, based on the rhetoric disseminated by institutional agents (Caldas and Wood 1998, Kieser 1997).

Proposed Research Gap	Reference
Need exists for research into the roles assumed by the vendor, consultant and implementing organisation during the acquisition stage of an ERP project	Esteves and Pastor (2001)
The current reductionist discourse on ERP systems at the core of ERP Communities concentrates solely on substantive factors, even though the ERP phenomenon can only be fully understood if it is also perceived in terms of the institutional and political factors which concur to define it, within and around the organisation	Caldas and Wood (1998)
More research will be needed to validate and refine the proposed framework of Non-Decision Making within the ERP Community	Sammon and Adam (2002)
Demonstrates the influence of bias over requirements in an ERP software selection decision-making process	Sammon and Lawlor (2004)

Table 1: Proposed Research Gaps

Research within the ERP and Non-Decision Making area has reached a point where the pheonmena has been identified and key issues have been highlighted. Marshall and Rossman (1989) have identifed four underlying purposes to research and an appropriate research methodology should reflect this underlying purpose. The issues outlined in Table 1 would suggest that elements exist in this research and provide a basis for aspects of both exploratory and explanatory research. Marshall and Rossman (1989) have identified exploratory research as being "employed to investigate little understood phenomena and to identify/discover important variables that might generate hypothesis for further research". Furthermore, Marshall and Rossman (1989) have described explanatory research as being an approach by which it is attempted "to explain the forces causing the phenomena in question" and to "identify plausible causal networks shaping the phenomena". Therefore, in an effort to embrace the exploratory and explanatory nature of this research study we use a case study to better understand the phenomenon under study. The data gathering techniques used included participant observation, interviews, and document analysis.

3. IRISH LOCAL GOVERNMENT

Irish Local Government has existed in its current form since 1898 when the Local Government (Ireland) Act was passed. Local Government consists of a number of local authorities in the Republic of Ireland (29 County Councils, 10 City Councils/Corporations, 75 Town Councils). The purpose of local government is to enable

people at local level to provide services for themselves and to make decisions through the democratic process and local residents elect individuals to represent them. Local authorities operate under the auspices of the Department of the Environment and Local Government (DOELG) and are subject to the legislative directives of Central Government.

Funding for local authorities is derived from revenues generated in the course of:

- The provision of services
- Grants allocated through the DOELG
- Internal capital receipts (sale of houses, land, etc.)
- Borrowing

Local authorities carry out a broad range of activities that make a significant contribution to the physical, cultural, social and environmental development of their communities. However, a movement towards providing a higher level of service at an appropriate cost to the end-user has recently been underway within local authorities. Within this research study we focus on two separate local authorities, namely: Cork City Council and Cork County Council, referred to as City and County in this paper. The ERP software selection process studied is based on our research conducted in City and County to-date, the DOELG and the LGCSB are not involved at this stage in the research process.

3.1 Cork City Council and Cork County Council

These local authorities exist in the largest county and second largest city in the Republic of Ireland. The City Council is headed up by 31 democratically elected representatives and consists of 1,500 staff. The County Council has 48 elected representatives with 2,500 multidisciplinary staff, carrying out many of the same functions as the City Council but throughout a much larger geographical area. Numerous strategic policy committees and functional committees exist within the City and County and are responsible for reviewing and planning their use of resources, strategic direction and operational practices. Historically, due to their close proximity, forums for cooperation exist between City and County. For example, Cork County Council started an IT department in the mid 1970's and successfully developed in-house financial systems which were also implemented in Cork City Council. Furthermore, the IT department of Cork County Council managed the IT function for both entities until the Cork City Council IT department was established in 1998. In addition, within City and County, it was normal for the Finance department to maintain a passive role in its relationship with the IT department. The IT department has traditionally dominated all finance systems and the Finance department has always been the junior partner. For example, if system related financial information was required, the IT department was consulted and constraints dictated regarding provision. Also, City and County retained a high level of autonomy in designing and maintaining its own applications and as a result maintained a certain distance from the Local Government Computer Services Board (LGCSB). The LGCSB defines its role as being able to assist all local authorities develop appropriate strategies to underpin business needs and implement appropriate solutios which are managed and supported centrally.

3.2 Restructuring within the Finance Function of Irish Local Authorities

The financial systems that existed within Irish local authorities were based on legislation that was published in 1946, and the only change to this legislation was introduced in 1977. Therefore, prior to 2001, local authorities reported financially in accordance with the Abstract of Accounts set out in the 1946 Public Bodies Order (PBO). The PBO provided a framework for the financial systems and the formats of accounts and reports. The Abstract of Accounts depicted the cash situation at a period end and all local authorities operated cash-based accounting systems. However, a process of reform has been underway within Irish local government that has driven change in the structure, policies and culture of local authorities. This change was the result of advances in the fields of Information Technology, Human Resource Management, Accounting and Public Administration, and reflected the fact that policies and procedures within the public sector in Ireland existed largely in their current form for over a century. The catalyst for the subsequent legislative and procedural changes that were to take place was an initiative entitled 'Better Local Government - A Programme for Change (1996)'.

The Better Local Government (BLG) initiative introduced measures to improve efficiency and reporting capabilities of the Finance function. The Prompt Payment of Accounts Act passed in 1997, highlighted the fact that the existing (legacy) financial systems were inadequate for requirements. Furthermore, the Local Government Act passed in 2001, provided a statutory framework for the new structures, functions and operations of local authorities, and local authorities are obliged to meet these requirements, for example, move

to accruals-based accounting. However, in early 1997, although there was no formal enactment of the BLG recommendations, a need for a new financial management system was understood.

3.3 ERP Software Selection Processes NOT Process

In 1997, the LGCSB attempted to resolve the problem through the development of an in-house system that would meet the requirements, for all local authorities, laid out in the BLG. Initially, City and County approached the LGCSB with the intention of 'seeing if they could piggy back along' with what the LGCSB was doing. However, the finance officers of City and County believed that "what the LGCSB was doing at that stage, trying to re-invent the wheel, was not feasible". Therefore, in 1997, City and County made the decision to introduce a consultant, with a view to purchasing an Off-The-Shelf (OTS) solution. The chosen consultant was a close acquaintance of the finance officer and had worked in the IT department for several years previous. The role of the consultant was to guide the steering committee of City and County in making a decision. City and County identified a number of software selection criteria which were the mandatory requirements that had to be fulfilled by the selected FMS. For example, the new system had to run on the IBM AS/400; the standard functions of the implemented system should provide the 'bulk of the required level of functionality' with little or no modifications (provide facilities in order to mirror, as far as possible, the coding structure proposed by the LGCSB, operating in accordance with modern commercial accounting principles of income and expenditure rather than payments and receipts); the system should be able to meet the demand of local government reform, through having flexibility with regard to the reporting structures which will enable data analysis, particularly expenditure; cater for euro changeover and Y2K problems; the system supplier should have an Irish base, be an established global supplier, be stable, and have a good track record at Irish installations.

The selection consultant presented the City and County steering committee with a report on the seven systems reviewed, that could meet the terms of reference. The review consisted of general information on the background, and a summary evaluation of what the consultant considered the relevant advantages and disadvantages of each system. It became clear early in the process that the main element of the requirements (coding structure) could not be catered for. The initial review concluded that none of the systems examined, offered a solution to the requirements and were unsuitable for City and County. The review stated that "most of the vendors products were more than capable of meeting the basic functional requirements of local government financial systems" in terms of the Accounts Payable, Asset Management and Purchasing modules. However, they could not manage the setting up of accounts, validation of individual elements during setup, or process inquiries. The consultant also criticised the user interfaces of all of the systems, stating that they were "either poorly designed, suffered from major performance problems, or simply fell over during demonstration". Therefore, the report highlighted that implementing any of the systems would not benefit City and County, and an implementation would require a serious amount of modification and result in a system that was 'difficult to use and unacceptably cumbersome'. As a result, the consultant made the following recommendations:

- City and County could await new releases from the suppliers reviewed
- The system that 'most closely' matched requirements could be adopted and modified as necessary
- A custom-built General Ledger could be developed and the system 'most easily' accommodating could be implemented alongside it

Therefore, City and County made the decision to revisit the systems that showed the best possibility of meeting the requirements of the 'General Ledger' coding structure. JD Edwards was selected as the system of choice in 1998. The decision making process involved the steering committee investigated the capacity of the systems to meet reporting and management information requirements rather than strictly adhere to the LGCSB structure, in that, the decision was predominately based on costs, track record and presence in Ireland, and enthusiasm for the project. However, the deliberations that occurred to arrive at this decision were not documented as part of the software selection process within City and County. Furthermore, in 1998, the LGCSB and the DOELG formed a cross-functional task force to select an appropriate OTS system, having realised that developing an 'in-house' system was not practical. Therefore, in 1999, Agresso was selected as the system of choice and became the standard financial management system for the majority of Irish local authorities. Surprisingly, JD Edwards was ranked as second choice by the LGCSB / DOELG decision makers.

3.4 Political, Institutional and Substantive Influences on the City and County Decision Making Processes

The City and County decision to begin a separate selection process, and the selection process itself, was the product of a milieu of disparate internal and external interests. Caldas and Wood (1998) have described how coalitions within organisations "reinforce institutional factors, by nurturing diffusion agents that serve the interests of power groups within the organisation". In the City and County selection process, the institutional

factor (diffusion agent - Independent ERP Consultant) became a key actor and worked with political groups such as IT and Finance in defining the criteria (e.g. the terms of reference) of the selection process. The steering committee coalitions and the ERP consultant legitimised each others position and roles, by introducing selective enabling substantive factors. The positions adopted by individual actors throughout the decision-making process, was the result of:

- The outcomes desired by the individual. Caldas and Wood (1998) have highlighted how information systems do not present direct solutions to political agendas, but provide a means to a desired solution or outcome.
- The potential advantages offered by institutional agents and rhetoric, for example, how this rhetoric "influenced and shaped political factors" (Sammon and Adam, 2002).
- The substantive issues that had to be dealt with. There were valid reasons for implementing the FMS and making the decisions that framed the selection process. However, in some cases these reasons were used to provide "concrete arguments to validate internal justification (political factors)" (Caldas and Woods, 1998).

4. ERP COMMUNITY FRAMEWORK ANALYSIS

The principles underlying the actor relationships, as depicted in the Sammon and Adams (2002) model of ERP decision making, can be observed within the City and County Financial Management System (FMS) selection process, although aspects of this particular case differ from the Sammon and Adam (2002) model. The Sammon and Adam (2002) model describes interactions between all three actors in the ERP Community. In the case of the City and County selection process, there was no direct interaction between the ERP vendor and the implementing organisation prior to implementation, whilst the internal dimension within the implementing organisation has been expanded. Also, a forum for interaction between internal coalitions has also been introduced (the LGCSB and DOELG selection process). Therefore, the model has been adjusted accordingly to reflect these case-specific details, as illustrated in Figure 1. The numerical values (1, 2, 3, 4) in Figure 1 represent the pivotal actors and coalitions existing within this ERP Community.

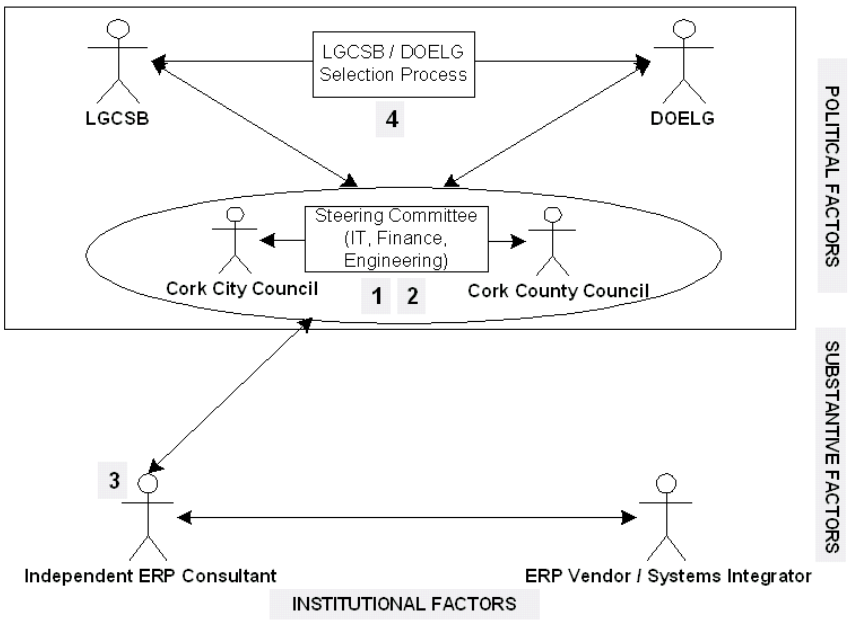

Figure 1: ERP Community Actor Interaction in the ERP Software Selection Process

Sammon and Adam (2002) have described how "the institutional factors influence and shape the political factors (those that emerge in the implementing organisation) by encouraging the emergence of the substantive factors (the accepted and publicised drivers and enablers of the ERP concept)". In the case of the FMS selection initiatives, political factors within the internal environment of the parent organisation (DOELG) were influenced by institutional factors (i.e. accountancy and IS diffusion agents' rhetoric) and developed substantive drivers (BLG provided a forum for their publication). Furthermore, 'power' coalitions within the implementing organisation under study (finance officers and their advisers), motivated by political agendas, influenced by institutional rhetoric and prompted by substantive drivers (BLG), then contracted the services of an

institutional agent (Independent ERP consultant). This diffusion agent assumed a central position, with manifest influence on organisational decision-making processes, whilst continuing to propagate selective elements of institutional techniques and rhetoric. In the course of seeking solutions to the substantive problems, coalitions attempted to ensure that their interests were maintained and that issues they were concerned with were given priority. Interactions with other actors within the ERP Community were then managed on this basis through the use of Non-Decision Making and specifically category manipulation techniques. The Independent ERP consultants' role, as digester of unpalatable technical issues, provided an ideal platform from which to manage the selection process and, as Atlee (1998) has described, facilitate the 'emergence of obvious truths'.

4.1 Non-Decision Making during the City and County ERP Software Selection Process

Atlee (2000) has identified five requirements for powerful Non-Decision Making. The conditions necessary to allow the "emergence of obvious truths" include sufficient diversity, passion, motivation, dialogue and time. An analysis of the City and County case in terms of these conditions reveals that:

- There was a degree of **diversity** in the composition of the selection steering committee. The 'creative tension' that the convergence of the differing perspectives of IT, Finance, ERP selection consultant, and Engineering created was sufficient to facilitate the emergence of particular decisions and ensure that momentum was maintained within the City and County selection process.
- The **passion** with which actors engaged with other elements of the steering committee, which Atlee (2000) has described as often being "associated with dogmatism and inflexibility", is characterised by the intransigence of certain actors in relation to particular decisions. The decisions to remain on the IBM AS/400, to remain independent of DOELG/ LGCSB and to continue with the process despite the unsuitability of the options, display a degree of passion on the part of steering committee members.
- This passion was **motivated** by political considerations.
- Atlee (2000) has described **deep dialogue** as being an exploration towards "shared understanding, connection and possibility" that is often achieved through facilitation. The selection consultant mediated dialogue of sufficient quality and in a manner that would facilitate the emergence of a consensus.
- **Enough time** passed for a consensus to emerge of its own accord (the selection process lasted approximately a year and a half).

4.2 Various Forms of Category Manipulation in the ERP Community

The impact that individuals and coalitions had on decision-making during the national and City and County selection processes must be considered in terms of the political and institutional contexts. It has been stated that the substantive issues surrounding ERP implementations exist in a 'grey area' in which rationales are poorly understood and actors within the ERP Community engage in category manipulation to facilitate agendas (Sammon and Adam, 2002). The issues that the respective actors involved in the process were concerned with, underlying motivating factors, the contribution they made to the selection process and outcomes that their contribution may have effected, is currently being analysed and a synthesis of this analysis is presented in this section. The pivotal actors and coalitions are listed in Table 2. The numerical values (1, 2, 3, 4) are used in Table 3 to illustrate the use of various category manipulation techniques by the actors within the ERP software selection decision making process.

[1] Cork City Council and Cork County Council Finance Officers and Advisers
[2] IT Controller at Cork County Council, IT Representative from Cork City Council and Advisers
[3] The Independent ERP Consultant
[4] Department of the Environment and Local Government (DOELG) and Local Government Computer Service Board (LGCSB) Representatives

Table 2: Coalitions/Actors involved in the ERP Software Selection Decision-Making Process

The cycle that was used to manage the dialogue over the course of the selection process was composed of two parts. The selection consultant assumed the role of facilitator of the process, whilst being the primary

information gatherer and interpreter. One stage in the cycle, which could be termed the *'criteria definition'* stage, involved setting the terms around which problems will be defined, solutions sought, concerns addressed and data gathered (as discussed by Atlee 2000). The 'midwifery' of the influences and category manipulation that the steering committee engendered resulted in the setting of outcomes (or 'breakthroughs') that provided a basis for the next stage in the cycle. The *'choice review'* stage of the cycle occurred after information specified in the *'criteria definition'* stage was gathered and presented. Decisions were made on the basis of this information that reflected the motivations and category manipulation of the constituent actors of the selection committee and the Non-Decision Making influences already contained in stage 1 of the cycle and subsequent information gathering. Recommendations then emerged in the course of the dialogue that furthered the system selection (Non-Decision Making) process and re-initiated the *'criteria definition'* stage of the cycle. This emergence of the decision to select JD Edwards 'World Software' from the myriad of potential suppliers was the result of a number of iterations of this cycle. At successive levels of the cycle, options were reduced until only one decision remained. Category manipulation was employed at each stage of the cycle and played a fundamental part in the interactions of the steering committee and its facilitator.

	1	2	3	4
Category Manipulation				
Definitional Games	**X**	**X**	**X**	
Over-Simplification	**X**		**X**	
Over-Complexification	**X**	**X**	**X**	
Narrowing the Time-Frame	**X**	**X**	**X**	
Favouring the Fashionable			**X**	**X**
Exertion of Pressure	**X**		**X**	**X**
Delay	**X**		**X**	**X**
Ignoring Cultural Variables	**X**		**X**	**X**
Focusing on the Inaccessible	**X**		**X**	
Rejection through Negative Association		**X**	**X**	
Neglecting or Repressing Categories			**X**	
Classification			**X**	
Conceptual 'Roll-On/Roll-Off'			**X**	

Table 3: The Existence of Category Manipulation in the ERP Community

For the purpose of this paper we are only focusing on actors 1, 2, and 3. Furthermore, to demonstrate the existence of category manipulation within this case, we are simply presenting a sample representation of the instances of NDM throughout the ERP software selection decision making process in City and County, as illustrated in Table 4.

Category Manipulation	Explanation
Definitional Games	City and County accepted various proposed definitions of solutions to substantive problems and redefined the selection criteria from stage 1 to stage 2 of the software selection process
Over-Simplification	The City and County steering committee simplified the selection criteria from stage 1 to stage 2 of the software selection process and 'holistic blurring' was evident in interpretation of the consultants' report (e.g. "coding structure was best")
Over-Complexification	City and County over-complexified the difficulties that the LGCSB were facing and used this as the basis to begin a separate selection process
Narrowing the Time-Frame	City and County ignored inevitability of LGCSB/DOELG meeting substantive requirements, and proceeded on the basis that time was limited and the LGCSB could not satisfy requirements. LGCSB made system selection decision 1 year later
Favouring the Fashionable	Members of the City and County steering committee were aware of ERP systems and a fashionable system was selected. Also, the consultant maintained that JD Edwards was "state of the art in its design and presentation", despite acknowledging in the report that he had never actually seen a proper system demonstration
Exertion of Pressure	The creation of the selection steering committee within City and County allowed decision makers to select one of the two options presented. Pressure was placed upon certain members of the steering committee to make a timely, rational choice based on the information presented by the selection consultant
Delay	City and County delayed discussing financing of JD Edwards implementation with the DEOLG until after it had taken place. Full consideration of the funding issue may have precluded initiation of separate project

Ignoring Cultural Variables	City and County disregarded the need for consistency in national local authority financial reporting and conforming to LGCSB standards
Focusing on the Inaccessible	City and County focused on the fact that the LGCSB was trying to 'meet the needs of all local authorities' and trying to 're-invent the wheel', and used this as a basis for initiating process
Rejection through Negative Association	City and County used negative association (e.g. inference that workload of learning new competencies - non IBM AS/400, GUI systems - was too great) that impacted on terms of reference, selection and decision processes

Table 4: Instances of Category Manipulation

4.3 Analysis of Stage 1 and Stage 2 Review of the City and County ERP Software Selection Process

The decision of the selection committee to limit stage two of the selection process to JBA and JD Edwards was the result of the cumulative set of political, substantive and institutional factors embodied in the terms of reference, the consultants' report and, critically, the steering committee itself. It is interesting to note that despite the apparent negativity of the consultants' recommendations, the steering committee accepted that the deadlines for selection and implementation should be decided upon and that the selection process should continue regardless. The criteria of the terms of reference were not redefined and the selection committee did not go back a step in the decision-making cycle and re-assess broader options such as the DOELG/ LGCSB initiative. Decisions were still made at this point on the basis of this apparently unsuitable shortlist. Caldas and Woods (1998) have referred to Lampel (1995) in describing how decisions relating to ERP selection are made in an "atmosphere of great urgency, created by both the promotional strength of vendors and the political agenda of executives". On the strength of the sequence of events depicted in the report to the steering committee, it would appear that the sense of urgency imparted by the decision-makers' political agendas, coupled with institutional influences, disregarded the independent ERP consultants recommendations. On the basis of the available documentation, it is unclear how JBA and JD Edwards were identified as being the systems that showed the "most possibility of meeting the requirements of the General Ledger".

The substantive drivers and enablers, shaped by political factors, ostensibly provided the basis for the consultants' report. A breakdown of the selection consultants' analysis of the reviewed systems reveals that the consultant was inconsistent in the approach taken towards reviewing potential suppliers and presenting options to the steering committee. Category manipulation was employed in generating conclusions and it is evident that the consultant had control over proceedings. An analysis, based on the criteria specified in the terms of reference, would suggest that JD Edwards was not a suitable system for City and County. On the basis of the report submitted to the steering committee, SAP would, 'on paper' in any event, appear to have been the most suitable system, albeit more expensive than other options. The independent ERP consultant stated that SAP "came closest to meeting the coding requirements", and also that the main difficulty facing decision-makers was to find a system that could handle General Ledger requirements, and that the most obvious course of action would be to "choose the system that most closely [matched] requirements and modify it". Despite this, SAP was never considered beyond the initial review, due to the existence of category manipulation techniques.

The review of Stage 2 of the process was a reasonably comprehensive assessment of both options, based on the criteria agreed by the steering committee. The independent ERP consultant described the technical features of the systems, the history of the suppliers and vendors, and the likely costs. On the basis of the stage 2 criteria, JD Edwards was the more suitable option. It had extensive government experience, better references, better foundation for future development (e.g. upgrade to 'One World'), etc. However, it is clear that the decision to purchase one of these systems had already been made, and that due to the dynamics created by the political environment of the organisation, and the format of the selection steering committee process, a decision had to be made between JBA and JD Edwards. The arrival at this juncture was the end result of the appliance of category manipulation by different actors at various stages in the decision making process, and was also a form of category manipulation in itself. The decision to select JD Edwards over JBA, although when taken in isolation seemingly the correct one, represented the sequence of decisions and influences on these decisions heretofore, and should be evaluated in that context.

5. CONCLUSIONS: ACTUAL OUTCOMES OF THE CITY AND COUNTY SOFWTARE SELECTION PROCESS

At the outset, the desired outcomes of City and County, regarding the independent selection of an FMS was to:

- Meet the requirements of BLG/DOELG
- Have the ability to value and sell fixed assets

- Maintain independence from LGCSB/DOELG and control system selection and implementation
- Continue to use the IBM AS/400 platform, which was recently installed and complemented existing IT capabilities

Whereas, the desired outcomes of the LGCSB/DOELG, regarding the selection of an FMS was to:

- Increase accountability
- Have the ability to value and sell fixed assets
- Improve the quality of financial information
- Develop and implement an application strategy to underpin all local authority business needs

However, Table 5 presents the actual outcomes of the ERP software selection decision making process of both City and County and the LGCSB/DOELG. It appears that City and County successfully achieved their desired outcomes as a result of undertaking their independent software selection process, but when compared with the actual outcomes of the LGCSB/DOELG, there are a number of mismatches in meeting the requirements set out in the BLG/DOELG. Furthermore, according to the finance officers in City and County, an Agresso FMS implementation seems likely in the long term to address the issues that are emerging post-implementation of JD Edwards.

City and County	LGCSB/DOELG
Accruals-based accounting implementation successful – although imperfect compliance with legislative requirements (missed April 3rd deadline for AFS submission – 2001 Local Government Act)	One Agresso site (Longford County Council) met the April 3rd AFS submission deadline set out in the Local Government Act 2001
Implemented system different to that of the majority of local authorities	The majority of Irish local authorities implemented Agresso
Reporting format different to that required by DOELG	Reporting formats for the vast majority of Irish local authorities now standardised as per DOELG recommendations
FMS implementation support and maintenance that LGCSB/DOELG provided for Agresso was not provided for JD Edwards implementation Problems exist relating to the software licensing system operated by JD Edwards Cost of upgrading IBM AS/400 equivalent to cost of initially installing it	DOELG covered costs associated with Agresso licensing, roll-out, training, administration and hardware upgrade
IT has maintained a central position as the primary 'owner' of vital IT skills, through which it continues to dictate constraints to other departments	
The 'green screen' version of JD Edwards selected and implemented has been criticised for not being user-friendly	
Agresso FMS implementation 'likely' in the long term	

Table 5: Actual Outcomes of the ERP Software Selection Processes

5.1 Summary and Recommendations

This study concludes that category manipulation techniques were engaged in by individual actors and actor groups within the ERP software selection process at the 'local' (City and County) and 'national' (DOELG and LGCSB) levels. The group decision-making mechanisms that were employed within the selection processes were an ideal forum for the type of category manipulation techniques that have been documented in this paper. Maintaining such a decision-making structure, reduced the ERP software selection (decision-making) processes at both 'local' and 'national' level to an overtly political nature, in which constituent actors were concerned with attempting to ascertain how best to manage their interests based on the opportunities presented when defining criteria and reviewing choices.

Although it is clear to the researchers that more research will be needed to fully validate and refine the proposed Sammon and Adam (2000) framework, we believe that the framework is useful in explaining the key factors that frame managerial decision making in relation to an ERP software selection process. As stated

earlier, decision making in this domain is often characterised by weak rationales, limited understanding of key concepts and a high failure rate, and we believe that the concepts that form the phenomenon described under the general heading of Non-Decision Making (NDM) will durably influence the investigation of the ERP movement.

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