

# INFORMATION SYSTEMS OUTSOURCING ISSUES IN THE COMMUNICATION TECHNOLOGY SECTOR

Hanlie Smuts

*School of Computing, University of South Africa, and Telephone Networks (Pty) Ltd,  
Private Bag 9955, Cresta, 2118, South Africa*

Paula Kotzé and Alta van der Merwe

*Meraka Institute of the CSIR, and School of Computing, University of South Africa  
P O Box 395, Pretoria, 0001, South Africa*

Marianne Loock

*School of Computing, University of South Africa  
P O Box 392, UNISA, 0003, South Africa*

## ABSTRACT

Organisations do not have unlimited resources and, by considering outsourcing, are balancing endless requirements with organisational assets. Outsourcing allows access to expertise, knowledge and capabilities outside of the organisation's bounds. Information systems (IS) outsourcing, as a business phenomenon, has grown as a widely accepted business tool and several reasons to consider IS outsourcing are reported. However, there is evidence that there are numerous barriers to IS outsourcing and that challenges are experienced with IS outsourcing arrangements. These challenges impact negatively on the initial intent of the reasons to outsource and result in organisations not achieving their outsourcing objectives. This paper investigates the IS outsourcing experience in the communication technology (CT) sector in South Africa through a survey among organisations in this sector. The survey results are compared to findings in similar studies in other markets and unique contributors to IS outsourcing issues in the South African context are identified.

## KEYWORDS

IS outsourcing, communication technology.

## 1. INTRODUCTION

No organisation can be self-sufficient; nor does any organisation have unlimited resources. However, most organisations have boundless requirements competing for resources. As a consequence, they must often outsource work that can be conducted by others at lower cost and with greater effectiveness, or waste valuable resources in the pursuit of capabilities that can be readily procured from others. This pursuit of capability can result in poor management since, by its very nature, management focuses on achieving objectives in an effective manner utilising the least amount of resources. Moreover, engaging in outsourcing allows an organisation access to expertise, knowledge and capabilities found outside its bounds (Power et al., 2006, Edersheim, 2007).

Outsourcing as a business practice is flourishing in almost every domain and organisations are outsourcing functional areas such as information systems, marketing, human resource administration and finance and accounting (Wessels et al., 2003). As the information systems (IS) field matures and the outsourcing trend gains momentum, a variety of reasons for initiating outsourcing decisions emerge in an environment of increased competition, acquisitions, stagnant economy and corporate debts (Aydin and Bakker, 2008). In such an environment where survival depends on cost-cutting and downsizing, IS becomes a probable target for outsourcing as it is difficult to measure direct contribution of the function (Benamati and Rajkumar, 2002). The scope of outsourcing in IS varies from data centres to application development, user and desktop support, operations and architecture (Lacity and Willcocks, 2009). Some organisations follow a

*smart-sourcing* approach where strategic applications are retained, while services that suppliers can perform more efficiently are outsourced (Lacity and Hirschheim, 1993, Beaumont and Sohal, 2004).

IS outsourcing in South Africa has also grown significantly and the South African information and communications technology market research company BMI-Techknowledge (BMI-T) reports that the South African IS services market grew by 25.2% between 2007 and 2008, reaching a total of R27 billion in 2008 (BMI-T, 2009). BMI-T projects the market to grow to R38.6 billion by 2013, at an annual growth rate of 7.4%. It further indicates that, owing to exceptional growth in managed services and hosting, IS outsourcing activities accounted for 40% of the 2008 total IS services spend. Contributing factors to increased focus on IS outsourcing in its different forms in South Africa are macroeconomic pressures and concerns about skills shortage, business continuity and the need to focus on core business. There has been a significant move towards selective outsourcing, which allows organisations to select only those outsourcing services that they require. This outsourcing trend is giving customers the flexibility to use different IS service providers for various managed services.

However, there is evidence to suggest that organisations are not achieving the desired benefits from IS outsourcing. Lacity and Willcocks (2009) conducted case study research in the IS outsourcing context in the United States, United Kingdom and Australia using data from senior IS managers who were asked to rate their overall success with IS outsourcing on a seven-point scale. They established that 50% of the 192 respondents rated their overall satisfaction as a 5 or above out of 7, while 29% indicated that their organisations were dissatisfied with their IS outsourcing arrangements with a score of 3 or below. A survey conducted by PA Consulting Group (PA Consulting Group as quoted by McIvor, 2000) found that only 5% of organisations surveyed achieved high levels of benefits from IS outsourcing.

Furthermore, several pitfalls related to IS outsourcing have been identified with the rise of IS outsourcing as a business phenomenon. These include people issues, such as lack of management commitment, not dedicating the best internal resources and not appreciating cultural differences between the organisation and the outsource partner (Gottschalk and Solli-Sæther, 2005). From a knowledge management perspective, minimal knowledge of outsourcing methodologies and failure to tap into external sources of knowledge have also been identified as a possible barrier (Gonzalez et al., 2005). From a relationship point of view, lack of an outsourcing communications plan and poor relationship management programmes have been acknowledged (Gottschalk and Karlsen, 2005). However, outsourcing failures are rarely reported as organisations are averse to sharing this fact because it may damage their reputation (Barthélemy and Adsit, 1993).

If IS outsourcing in the CT sector in South Africa is considered, then the question arises whether this sector experiences the same barriers and pitfalls described. In order to understand whether organisations are satisfied with IS outsourcing in the CT sector in South Africa, a survey was conducted to obtain information on the initial intent with the IS outsourcing, to establish what high level preparation was concluded prior to the IS outsourcing, to determine the success of the IS outsourcing project and to ascertain what research participants would do differently if they could reconsider the IS outsourcing process.

The purpose of this paper is to share the findings of this survey and to report on the status of IS outsourcing satisfaction in the CT sector in South Africa. Section 2 provides the background; section 3 describes the method followed in conducting the survey and reflects on the feedback obtained; section 4 summarises the survey findings; and section 5 concludes the paper.

## 2. BACKGROUND

The term 'outsourcing' reflects the use of external agents to perform one or more organisational activities (Lacity and Hirschheim, 1993). According to Power et al. (2006 : 1), outsourcing should be defined by understanding the two words 'out' and 'sourcing':

*Sourcing* refers to the act of transferring work, responsibilities and decision rights to someone else. *Outsourcing* is the act of transferring the work to an external party.

Organisations outsource work to an entity that can do it cheaper, better and faster, allowing the organisation to rather assign its internal resources to other priority demands (Power et al., 2006). An example of such outsourcing for efficiency is a sales executive utilising a travel agency to book and manage all the logistics around a business trip, costing the organisation less, allowing him or her to attend to clients and generating more revenue for his or her organisation instead. Hence, both direct costs, e.g. salary, and

opportunity costs, e.g. time and effort, are important determinants in the sourcing decision (Power et al., 2006). Another reason to outsource work is effectiveness towards achieving organisational goals, where the expertise of an external expert is called in for certain tasks. An example is brokers and financial planners, who are experts in their fields of work on money markets, stock prices, share options, appreciation, etc., and who manage such portfolios on behalf of their clients.

## 2.1 IS Outsourcing

The IS industry saw the growth of IS outsourcing, as a widely accepted business tool, from a one-vendor-one-client arrangement where the vendor provides all IS services to its client, to complex arrangements involving multiple vendors and multiple clients (Dibbern et al., 2004). The outsourcing decision can often be a major determinant of profitability, making a significant contribution to the financial health of the organisation (Lacity and Hirschheim, 1993).

Dibbern et al. (2004) argue that IS outsourcing is fundamentally different from other forms of outsourcing since it is not a homogeneous function, but rather interrelated to all organisational activities. In addition to these definitions of outsourcing, many authors also describe various outsourcing arrangements or options. Lacity and Hirschheim (1993), for example, offer a taxonomy of IS sourcing decision options:

- *Total outsourcing* – the decision to transfer IS assets, leases, staff and management responsibility for delivery of IS products and services from an internal IS function to a single third-party vendor which represents more than 80% of the IS budget.
- *Total insourcing* – the decision to retain the management and provision of more than 80% of the IS budget internally after evaluating the IS services market.
- *Selective sourcing* – the decision to source selected IS functions from one or more external providers while still providing between 20% and 80% of the IS budget internally. This strategy may include single or multiple vendors.

Irrespective of the outsourcing decision, the IS outsourcing life cycle is made up of several processes and subprocesses, such as defining the scope of the services to be outsourced, deciding on relevant measures of quality, deciding on transition arrangements (including nature of staff), writing and agreeing to a contract (including the service level agreement), changing from internal to external operation, monitoring the quality of service, negotiating changes triggered by changing business conditions and renegotiating or terminating the agreement (Barthélemy and Adsit, 1993, Wessels et al., 2003, Lacity and Willcocks, 2009).

## 2.2 IS Outsourcing Experiences

Rao et al. (1996) conclude that there are still conflicting arguments for and against outsourcing. Advocates of the practice argue that it results in significant cost reduction with increased management control, effective use of staff, capacity on demand and access to advanced facilities. Opponents, on the other hand, contend that outsourcing involves major risks with loss of control, loss of qualified IS staff, loss of flexibility and loss of competitive advantage in information management. It is uncertain how far outsourcing will go and whether it actually has advantages over internal operations in the long term (Rao et al., 1996).

Vilovsky (2008) undertook an analysis of academic publications on IS outsourcing in public organisations and collated issues and concerns with IS outsourcing. It was found that uncertainty around budgets pose a serious obstacle for complex outsourcing projects, as both the client and the vendor are required to make significant investments over the first year, and this impacts on longer term planning. Loss of control over the technology and project status to a vendor is one of the most frequently mentioned and most harmful pitfalls as it may result in overdependence on the outsourcing vendor. This in turn leads to vulnerability to possible opportunism such as giving other clients higher priority, imposing excessive fees on anything not stated explicitly in the contract, failing to perform necessary maintenance of systems and even loss of data or the access to data. Failure to keep enough technical expertise and knowledge about the IS outsourcing project in-house are agreed to be the main reason for the loss of control. Another issue identified is the applicability of public ethical norms to private outsourcing vendors. Some practices considered to be unethical in a public agency are normal and even beneficial in the business world, e.g. the hiring of family members.

Furthermore, in order to capitalise on the benefits of IS outsourcing, many organisations are moving IS work offshore, but often with unsatisfactory results (Ranganathan and Balaji, 2007). Key operational challenges experienced by Indian offshore firms, for example, include competition for labour in the IS industry, the limited availability of human resources at the appropriate experience level, maintaining and improving quality, lack of effective communication in the offshore context and concerns around data privacy with outsourcing to India or other countries (Narayanan and Swaminathan, 2007). Fabrick et al. (2008) highlight that the increased diversity contributed by an offshore team can lead to a stronger team and better quality. However, owing to poor communication it often leads to poor decision quality, poor productivity and poor relationships. Distance in terms of geography, time zones, culture and organisation impact communication negatively.

Ranganathan and Balaji (2007) identified common challenges in offshore outsourcing through interviews and case studies at 18 organisations with offshore IS outsourcing projects in the United States. The common challenges include differences in language, culture and time zones that they have to contend with over and above differences in organisational cultures. More significant changes to the IS organisation and business units are required for offshore IS outsourcing than for domestic outsourcing, as the IS organisation and end-users have to work with an offshore team that is culturally different and multifaceted. Offshore outsourcing also includes risks such as loss of core knowledge and vendor opportunism, which are compounded by the geographic distance between client and vendor, as well as different laws and legal systems in the different countries. Concerns regarding data security and privacy, intellectual property protection and dispute resolution also accentuate challenges in IS offshore outsourcing.

Beaumont and Sohal (2004) report that outsourcing in Australia impacts career opportunities, changes jobs and changes organisational cultures as the organisation has to adapt to different ways of working, negotiating and co-operating with many partners. They also identify reasons why organisations choose not to outsource, of which high level of control required by the activity, no significant cost savings, possible loss of confidentiality/intellectual property and the fact that internal service providers are better equipped rated the highest.

In the Kuwait health sector several issues were recognised, with security around data confidentiality, ability to operate and manage new systems and loss of key IS employees identified as major concerns (Khalfan and Alshawaf, 2003). Data confidentiality ranked first, as security has always been a major priority in the region, and the ability to manage new systems ranked second, as it is a common perception that internal IS departments cannot manage the transition to new technological platforms effectively.

### **2.3 IS Outsourcing in the South African CT Sector**

South Africa has a significant telecommunications infrastructure and a diversity of print and broadcast media (SA-Online, 2009). The passing of the Telecommunications Act in 1996 established a sector regulator and allowed for mobile network competition, as well as value-added network services and private telecommunication networks (Gillwald et al., 2005). In 1997, the incumbent fixed line operator was partially privatised and the Telecommunications Amendment Act passed in 2001 legalised a second fixed network operator (Gillwald et al., 2005). The first converged telecommunications network operator licence to offer voice, data and internet over a single connection was awarded during 2008. Regulation of the industry further contributed to pressure on IS as number portability and legislation around information protection were promulgated (Neotel, 2009).

The South African CT market follows the internationally established and recognised trend of engaging the services of outsource partners. In so far as it is relevant to the CT sector, outsourcing has undergone many years of adaptation, and despite the higher levels of fluctuation and ongoing influence within this particular market sector, there is every reason to believe that outsourcing will continue to develop and remain an intrinsic and valued aspect of the CT trade (ITWEB, 2006).

The next section details the process followed to obtain information regarding the success of IS outsourcing in the CT sector and presents the feedback from the survey conducted, as well as the comparison to IS outsourcing outcomes in other sectors across the world.

### 3. SURVEY TO DETERMINE STATUS OF IS OUTSOURCING IN THE CT SECTOR IN SOUTH AFRICA

In order to get an indication of the status of IS outsourcing in the CT sector of the South African market, a survey was designed. Ten representative organisations from the CT sector in South Africa with a core focus on mobile, fixed, converged, internet or media communication were identified and invited to participate in the survey. We selected these ten organisations based on the fact that all operate in an extremely competitive market, all have a strong IS and technology focus and they all contend with a market where skilled resources are not an option, but a necessity. The organisation representatives that completed the survey included a chief information officer, IS general managers and senior managers, all of whom were involved in IS outsourcing activities at the time.

#### 3.1 Survey Design

The main objectives of the survey design were (1) to obtain information on the initial intent with the IS outsourcing, (2) to establish what high level preparation was concluded prior to the IS outsourcing, (3) to determine how the IS outsourcing arrangement unfolded and (4) to ascertain what research participants would do differently if they could reconsider the IS outsourcing process.

The questionnaire consisted of three sections: a *coding* section, where the scope of IS outsourcing was established; an *opinion* section, which contained information about the objectives and perceived result of the outsourcing; and the *general feedback* section, which included an open-ended question. The questions in the first two sections of the survey were formulated such that research participants could respond with a 'yes' or a 'no' answer.

Section A of the survey, the *coding* section, consisted of four questions. The first question related to whether the respondent's organisation outsourced IT services or not. A 'no' response to the first question led to the second question indicating five reasons why the IS outsourcing decision was not considered. Further to a 'yes' response to question 1, eight areas of IS outsourcing were provided to establish the scope of the IS outsourcing in the respondent organisations. The last question in section A of the survey provided respondents with nine reasons to choose from for why outsourcing IS should be considered.

Section B, the *opinion* section of the survey, consisted of four questions. The first question related to the contribution of IS outsourcing to key business drivers and provided respondents with four options to choose from. The second question provided respondents with five areas of preparation prior to embarking on the IS outsourcing, while the third question provide a five-option scale to establish the perceived success of the IS outsourcing. The last question in this section provided seven focus areas for respondents to highlight what they would approach differently if they had to make the outsourcing decision and start the process again.

Each question in sections A and B of the survey closed with an open-ended question requesting that respondents include options that were not specified in the list provided and that they believed were relevant.

Section C, the *general feedback* section, contained an open-ended question where respondents could add any free-text comments.

#### 3.2 Data Coding

Nine of the ten organisations invited completed the questionnaire. The tenth indicated that the survey could not be completed owing to potential industry protocol and information sensitivity issues. The nine responses received were captured in an Excel spreadsheet with a 'yes' response coded with a '1' and a 'no' response coded with a '0'. The total responses per dimension were analysed and graphs were compiled to present the response ratings visually. The answers to the open-ended question were collated and the content analysed by using open coding in order to establish themes from the survey data (Leedy and Ormrod, 1989, Myers and Avison, 2002).

### 3.3 Results

In the remainder of this section, we provide the feedback per question, and also the coded feedback derived from the open-ended questions.

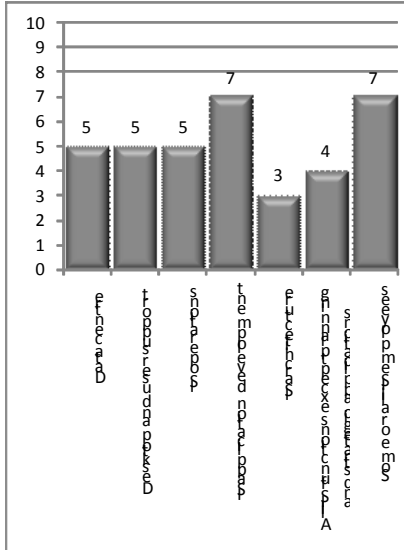


Figure 1. Scope of IS outsourcing

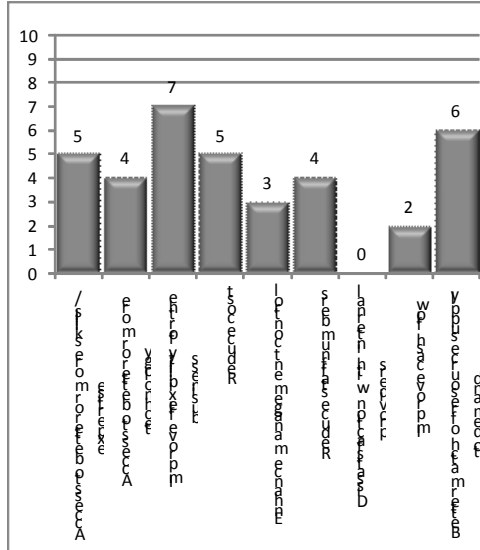


Figure 2. Main reasons for IS outsourcing

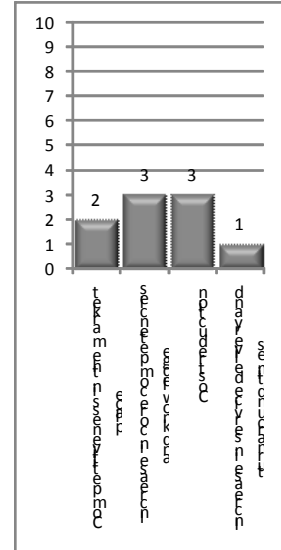


Figure 3. IS outsourcing benefits

#### 3.3.1 Section A, Question 1: IS Outsourcing Arrangement

All nine respondents confirmed that they had an outsourcing arrangement in place. As all responses to this question were positive, question 2 contained no responses because it dealt with organisations that did not outsource at that time.

#### 3.3.2 Section A, Question 3: Scope of IS Outsourcing

None of the respondents outsourced their total IS function and all nine indicated that they only outsourced some of their IS services. The scope of outsourcing is reflected in Figure 1, highlighting that IS application development was outsourced in seven out of nine organisations, while data centre, desktop/user support and IS operations were outsourced in five out of nine organisations. IS employees were included in the outsource agreement in seven of the nine organisations. One research participant clarified that although the response to data centre outsourcing was ‘yes’, only a part of their data centre was outsourced.

#### 3.3.3 Section A, question 4: Main Reasons for IS Outsourcing

The second question focused on the reasons for outsourcing. According to the research participant feedback depicted in Figure 2, the main reasons for outsourcing were to improve flexibility for the business (7/9), a better match of resource supply to demand (6/9), access to better/more skills (5/9) and cost reduction (5/9).

None of the research participants indicated dissatisfaction with internal providers as an outsource reason and one research participant added two additional reasons for outsourcing, namely *shareholder directive* and *time to market*. These two reasons are not reflected in Figure 2.

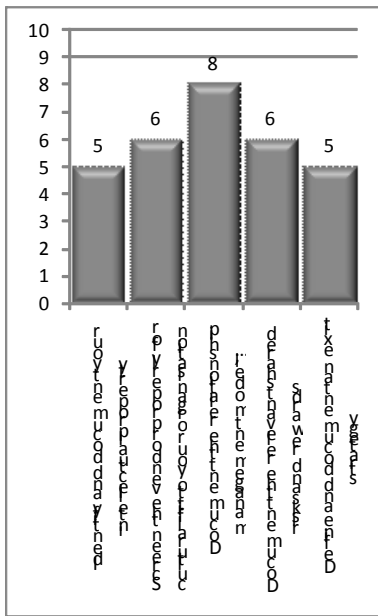


Figure 4. IS outsourcing preparation

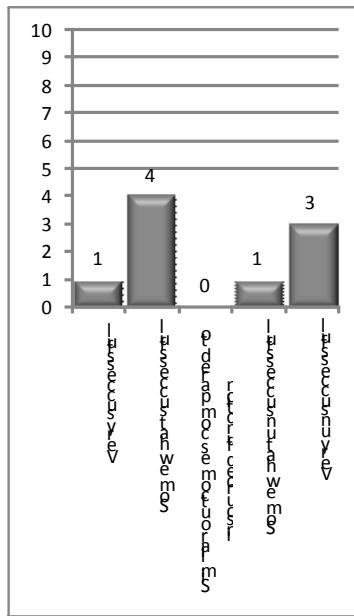


Figure 5. IS outsourcing perception of success

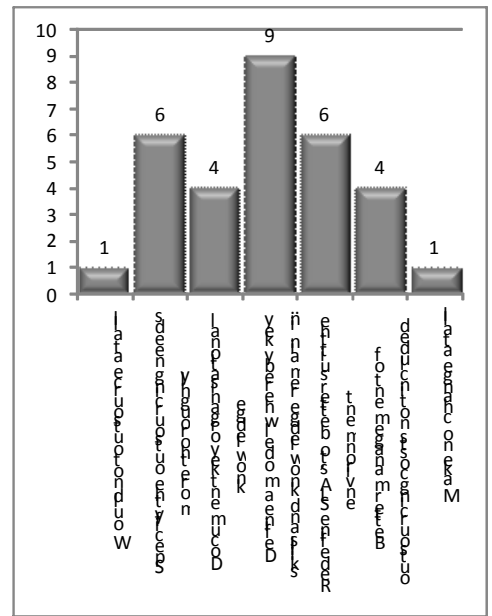


Figure 6. IS outsourcing considerations if outsourcing decision could be considered again

### 3.3.4 Section B, Question 1: Contribution of IS Outsourcing

In the reasons for outsourcing, five of the nine research participants indicated that an outsourcing driver was access to better or more skills/expertise and cost reduction (Figure 2). However, when the research participants rated the benefit realised from the outsourcing, they responded quite negatively in that only three out of nine indicated that cost reduction and an increase in core competency and knowledge were achieved. According to Figure 3 where the results of the outsourcing contribution are depicted, most respondents felt that the most important outsourcing benefits were cost reduction and the increase in core competencies and knowledge.

### 3.3.5 Section B, Question 2: Preparation for IS Outsourcing

Most research participants, eight out of nine, indicated that they documented the relationship model, processes and plan prior to outsourcing. Documentation of relevant risks and rewards, as well as the screening of the vendor for cultural fit to the organisation, were included by six of the nine respondents. Five out of nine respondents also documented an exit strategy prior to the outsourcing and identified and documented intellectual property. Figure 4 shows the focus areas of preparation prior to outsourcing.

### 3.3.6 Section B, Question 3: Success Rating for IS Outsourcing

The research participants' perception of the success of the outsourcing is shown in Figure 5. Only one research participant indicated that the outsourcing was very successful, with four indicating some success. Four research participants reported that the outsourcing was not successful.

For this question of the survey, three research participants indicated that an overall rating for the success of the outsourcing was difficult to establish as some areas of outsourcing were successful while others were not at all.

### 3.3.7 Section B, Question 4: Different Approach to IS Outsourcing

Figure 6 shows the focus areas that research participants would attend to if they had the opportunity to reconsider the outsourcing decision and start the process again. All nine research participants indicated that they would define a model whereby key skills and knowledge remained in the organisation, while six would redefine service level agreements to better suit the environment and specify outsourcing needs more thoroughly. Four of the nine research participants would document key organisational knowledge and better

manage outsourcing costs excluded from the standard agreement. Only one research participant would make no change at all and one would not outsource at all if the decision could be considered again.

### 3.3.8 Section C, Question 1: Open-ended Question

The last question in the survey was an open-ended question and research participants indicated general, free-format feedback. These responses were collated and content analysis consisting of open coding was used to obtain primary and emerging themes from the survey data. Three themes emerged as a result of the coding process: *issues* experienced with the IS outsourcing, some *positive experiences* and considerations of how research participants would *approach* IS outsourcing *differently*.

The topics that contributed to the first theme, *IS outsourcing issues experienced*, were a breakdown in communication and lack of co-operation between the permanent and outsource employees. From an operational perspective it was noted that the non-familiarity of the outsource vendor with the internal procedures and policies of the organisation resulted in housekeeping and general operational tasks not being performed and procedures not followed. Even though it was IS outsourcing, issues were experienced around business stakeholder impact, since the outsourcing impacted on the expectations, deliverables and requirements of other functional areas in the business. Challenges were also experienced regarding the availability of locally skilled individuals as part of the IS outsourcing agreement.

The second theme, highlighting a *positive outcome* of the IS outsourcing, indicated that over time the trust relationship between the permanent staff and the contractors improved, although this was not the case immediately after the time of outsourcing. One research participant indicated an improvement in the entrenchment of IS discipline and processes.

The third theme that emerged from the open-ended questions was related to *key considerations* if research participants had the opportunity to consider IS outsourcing again. Most respondents indicated that it remained imperative to first of all identify the non-core functions that could be outsourced and then to consider a 'multi-sourcing' approach. This implies that strategic applications are kept in-house and that the outsourcing should be done on a gradual basis starting with 'non-essential' parts first. Focus would be given to the formulation of evaluation criteria that could measure the outsource expectations and properly evaluate vendors. This should also inform the proper design of guaranteed service level agreements. Processes and procedures should be defined not only in the IS environment, but also with all the other business stakeholders that are dependent on the support from the outsource partner. Lastly, role clarification between the outsource partner and internal organisation should be delineated from inception of the project.

## 4. SUMMARY OF FINDINGS

All respondents outsourced a varied scope of IS components and most embarked on the outsourcing arrangements with clear key objectives in mind. The respondent organisations prepared for the outsource implementation by documenting the relationship model, processes and plan prior to the outsourcing. However, what transpired after the outsourcing was not aligned with the initial outsourcing intent and some respondents indicated that the outsourcing was unsuccessful.

Several focus areas were identified that research participants would consider if they had the opportunity to initiate the outsourcing process again. These include:

- The definition of a model whereby key skills and knowledge remain in the organisation. This key area relates to the IS sourcing decision and how strategic sourcing may be achieved while protecting intellectual property. This objective is also supported by the theme in the open-ended question of only outsourcing the organisation's non-core IS components.
- A more thorough specification of the outsourcing needs of the organisation should be defined in order to ensure optimal benefit realisation and alignment with the initial intent of the IS outsourcing arrangement. In order to address this, a multi-sourcing approach or gradual bases outsource starting with non-essential parts can be considered and strategic components kept in-house.
- Service level agreements, as a tool to monitor outsource vendor delivery aligned with the outsourcing needs, should be revised in order to ensure that they suit the environment better.
- Key organisational knowledge should be document for the supplier to totally and thoroughly understand the client's business and technical domain.



- Outsourcing costs not included in the standard outsourcing agreement should be better managed. Poor scoping and prioritisation of requirements in this area may result in cost escalation and not achieving one of the reasons for IS outsourcing, i.e. cost reduction.
- Processes and procedures should be defined prior to the outsource contract being signed and commitment made not only in the IS environment, but also with all the other business stakeholders that are dependent on the support from the outsource partner. It is important that the IS organisation take its business stakeholders along this journey to ensure that all aspects of the outsource deal are considered.
- Role clarification between the IS organisation and the outsource vendor need to be delineated from the inception of the project.

Although it was not the intention to define an exhaustive list of issues involved in IS outsourcing, some of the issues highlighted by previous studies (section 2.2) were also reflected in this survey and are summarised in Table 1. For example, the confidentiality, security and sensitivity of information remain a concern and are one of the reasons why organisations are hesitant to outsource IS. Another common concern that was highlighted was cultural differences in terms of approach, communication and process flexibility, especially in an environment where internal IS resources were also transferred to the outsource partner, as indicated by seven of the nine respondents. This, together with a lack of skilled resources in the South African IS industry, places a stronger emphasis on global resources that have to work in the South African IS environment and exacerbate the cultural and process misalignment between the organisation and the outsource partner. This materialises as a lack of trust, poor communication and a lack of understanding of internal processes and procedures among the joint project teams, with an ensuing escalation of IS costs and long turnaround times for service delivery. One of the major concerns highlighted by South African survey respondents was the impact that the IS outsourcing had not only on the IS department, but also on functional areas in the organisation that were dependent on a high standard of IS delivery.

Table 1. IS outsourcing challenges compared

IS outsourcing challenges and source	South Africa IS outsourcing open-ended question feedback
Competition for labour in the IS industry and loss of key IS employees (Khalfan and Alshawaf, 2003, Narayanan and Swaminathan, 2007)	Resource challenges related to availability of locally skilled individuals.
Limited availability of human resources at the appropriate experience level and ability to operate and manage new systems (Khalfan and Alshawaf, 2003, Gottschalk and Solli-Sæther, 2005, Narayanan and Swaminathan, 2007)	Resource challenges related to availability of locally skilled individuals.
Lack of maintaining and improving quality (Narayanan and Swaminathan, 2007)	Service level agreements to be designed properly.
Lack of effective communication (Gottschalk and Karlsen, 2005, Narayanan and Swaminathan, 2007, Fabriek et al., 2008)	Communications break down and lack of co-operation between permanent staff and the contractors.
Differences in language, organisational and individual culture (Gottschalk and Solli-Sæther, 2005, Ranganathan and Balaji, 2007)	Cultural mismatch. Expatriate inputs and culture differences - do not know the SA market and suppliers.
Loss of core knowledge and intellectual property protection. (Beaumont and Sohal, 2004, Gonzalez et al., 2005, Ranganathan and Balaji, 2007, Vilovsky, 2008)	Loss of key resources as part of outsourcing agreement.
Vendor opportunism, e.g. giving other clients higher priority, imposing excessive fees on anything not stated explicitly in the contract (Ranganathan and Balaji, 2007, Vilovsky, 2008)	Opportunities to sell were always prevalent and all reasons were put forward to entice the client to purchase additional equipment.
Different ethics, laws and legal systems in the different countries (Ranganathan and Balaji, 2007, Vilovsky, 2008)	SA market up-skilled resources; however, overseas shareholding added political pressure to use offshore resources.
Concerns regarding data security and privacy (Khalfan and Alshawaf, 2003, Narayanan and Swaminathan, 2007, Ranganathan and Balaji, 2007, Roodt and Paterson, 2009)	Confidentiality, security and sensitivity of information was highlighted as reasons why organisations are hesitant to outsource
Impact on career opportunities, changed jobs and changed organisational cultures as the organisation has to adapt to different ways of working, negotiating and co-operating with many partners (Beaumont and Sohal, 2004, Ranganathan and	Bring a different culture to negotiations and network building with regard to IS outsourcing.

Balaji, 2007)	
High level of control required by the outsourcing activity (Beaumont and Sohal, 2004, Vilvovsky, 2008)	Never outsource the IS business processes, software and infrastructure that are at the core of your operational success. Document the expected benefits in terms of human resources, costs, value added, etc.
Uncertainty around budgets posed a serious obstacle for complex outsourcing projects, especially for longer term planning (Vilvovsky, 2008)	Unknowns at beginning of project resulted in resource allocation budgetary issues.
Overdependence on the outsourcing vendor (Vilvovsky, 2008)	Dependency on one vendor.
Failure to perform necessary maintenance of systems and even loss of data or the access to data (Vilvovsky, 2008)	Unfamiliarity with internal policy and procedure resulted in cases where process not followed. Housekeeping and general operational tasks were not performed.

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## 5. CONCLUSION

The purpose of this survey was not to establish the success of IS outsourcing. Rather, the objective was to establish the status, issues and the perception of IS outsourcing in the CT sector in South Africa and this feedback will be utilised for further research in this field.

Research participants highlighted some key objectives to be achieved by IS outsourcing and most respondents prepared main requirements prior to the outsourcing. In most instances, research participants experienced challenges with the IS outsourcing and the general rating for the success perception of the outsourcing varied between somewhat successful and very unsuccessful. All research participants indicated that specific issues would be addressed if they had the opportunity to reconsider the outsourcing arrangement.

These findings regarding IS outsourcing in the CT sector in South Africa are consistent with other IS outsourcing experiences, and common themes like cultural differences, project team conflict, service delivery and turnaround times, breakdown in communication and cost escalation were identified. In addition to these issues, the lack of local skilled resources and the major impact that IS outsourcing has on *other* departments in the organisations were highlighted by South African respondent organisations. Major priorities for South African respondents are the clear definition of non-core IS in determining the scope for IS outsourcing, formulation of clear assessment criteria to monitor and track the IS outsourcing arrangement and to optimise the outsourcing approach – either through a phased implementation or utilising multi-sourcing principles.

We have posed the question whether organisations are satisfied with IS outsourcing in the CT sector in South Africa. Research participants indicated that organisations in the CT sector in South Africa experience similar IS outsourcing issues to other countries and markets, but also specific issues that differ. Respondents indicated that IS outsourcing should still be considered, but that it should be done by clearly defining and holding on to core IS functions in the organisation, that service level agreements, processes and procedures for the outsource partner should be clearly defined and managed and that the rest of the business should also be prepared for the outsourcing arrangement.

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