IS/IT outsourcing practices in the public health sector of Kuwait: a contingency approach

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Keywords

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Abstract

Presents first an overview of a case study exploring the information systems/information technology (IS/IT) outsourcing phenomenon in the public sector of Kuwait where the data collection for this study was carried out. The primary data on IS/IT outsourcing practices were collected by means of survey questionnaire and semi-structured interviews supported by organisational documentation. Several public sector institutions, including the Ministry of Public Health, participated in the investigation. Second, this paper seeks to develop a conceptual contingency model for the successful implementation of IS/IT outsourcing arrangements in the context of Kuwait. The model addresses many interacting variables, from national culture and social factors through contractual issues. Argues that it is necessary to take account of all these variables to ensure successful implementation of IS/IT outsourcing arrangements. The study findings suggest that there will be an increasing utilisation of IS/IT outsourcing services in the public sector of Kuwait, particularly at its main component, the public health care sector.

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1. Introduction

The study of what makes IS/IT outsourcing successful is one of the most important topics in IT management nowadays (Seddon, 2001). Outsourcing information systems/ information technology (IS/IT) has become a widespread worldwide phenomenon both in the private and public sectors, and has received much attention in more recent years Currie (1996). It has become a new management tool as the challenges facing organisations increase, such as mounting competition and global economic recession, which forced organisations to cut expenses in non-core activities, particularly in overheads of IT departments (Currie, 1995). Additionally there are other drivers behind IS/ IT outsourcing process, including business process re-engineering (BPR) (Rothery and Robertson, 1995) organisational restructuring, benchmarking, new alliances or partnership (Rothery and Robertson, 1995).

Nevertheless, IS/IT outsourcing is not a new concept, but has been used throughout the data processing era as time-sharing, the use of contract programmers, and the purchase of packaged software (Earl, 1996). IS/IT outsourcing has received renewed interest in the past as becoming a business model to meet the different and mounting needs of information systems functions. Many authors claim that the terminology of IS/IT outsourcing was first used in 1989 when Eastman Kodak made the decision to make total outsourcing agreements with three large IS external providers. The firm decided to turn over its entire data centre functions to IBM, telecommunication and networking to Digital Equipment Corporation and IBM, and its microcomputer operations to Business Land (De Loof, 1996). Since then, IT outsourcing has become an integral component of the information management process (Rockart and Rose, 1995). Researchers in IS propose several reasons why firms outsource their IS, including reducing costs, generating cash, focussing on core competencies, and gaining access to technical expertise. These assertions are examined by this research project. This paper aims to present a systematic discussion of the issues underlying the IS/IT outsourcing practices.

There is the fact that on conservative estimates, IS/IT outsourcing may well represent, on average, 30-35 per cent of IT

budgets by 2002 (Lacity and Willcocks, 2000). IT outsourcing has been recognised as one of the top ten issues for success in the 1990s (Rockart et al., 1996). Additionally, the Gartner Group (1999) project a 16.3 per cent growth rate, world-wide, between 1997-2002, to create a $120 billion IT outsourcing market by 2002, with the US share of $51 billion of this amount. At the same time, research conducted by International Data Corporation (Marphy et al., 1999) forecasts a global IT market for more than $151 billion by 2003, and forecasted to be $154 billion by 2004 (IDC, 1998; Lacity and Willcocks, 2000).

According to Surpin and Weideman (1999, p. 3), outsourcing is defined as "the process of contracting an outside company to provide a service previously performed by staff". Also, in a number of cases, outsourcing involves a transfer of management responsibility for the delivery of the services as well as the internal staffing to a third party service provider. Outsourcing signals a belief that an outside party has the economies of scale and/or expertise to provide superior IT products and services. Whether this is simply a cost saving measure or a vote of non-confidence in the internal IS specialists, it does commonly change their organisational role. Lacity and Hirschheim (1993) provide three categories of IS/IT outsourcing. The first one, the body shop, is primarily for short-term demands like the use of the contract programmers. The second category, project management, is primarily used for a specific project or portion of the IS work. Examples including the use of an outside provider to develop a new system, handle disaster recovery, support an existing application, manage communications and networks, or provide training. The third category, total outsourcing, is where management's decision is to turn over the entire hardware and software support to an external vendor and for the vendor to be in full charge of the data centres and telecommunications operations.

Research objective

As is the case for many developing economies, internationally-published research on IS practice in Kuwait is in short supply. The few reports of Kuwaiti IS/IT practice highlighted in studies of Middle Eastern or Arab computing have also largely discussed them in terms of these broader regional identities

rather than their specific national context. Only a restricted, and often very generalised, picture of how IS/IT are developed, implemented and used in Kuwait is therefore available. Most studies on IS management have focussed on issues more germane to developed countries and specifically on organisations in the private sector. They have limited relevance to IT projects in public organisations in developing countries.

The vast majority of existing research into IS/IT outsourcing has been primarily conducted in developed nations, with most studies focussing on organisations in the USA or Europe (see, for example, Loh and Venkatraman, 1992; Lacity and Hirschheim, 1993; Cronk and Sharp, 1995; Cross, 1995; Jurison, 1995; Mclellan et al., 1995; Palvia, 1995; Apte et al., 1997; Currie and Willcocks, 1998; Lacity and Willcocks, 2000).

There is growing awareness of the need to understand MIS issues from a global perspective (Palvia et al., 1992). The aim of this research is to gain a deeper understanding of the IT outsourcing phenomenon in Kuwait. To date, IS/IT outsourcing has received "little academic attention in the non-Western context" (Lee and Kim, 1997, p. 1). The literature review has found that there is no research with regard to information system strategies in developing nations, such as Kuwait. Yet, Kuwait and other Gulf Co-operation Council (GCC) countries differ from industrialised countries in terms of culture, economics, socio-politics, and legal issues (Kassem and Habib, 1989; Abdul-Gader, 1997).

The aim of this research is to explore IS/IT outsourcing practices as an information systems strategy in the context of Kuwait. Attention will be focussed on differences between Kuwait and the developed countries and their implications for outsourcing. Specific issues related to IS/IT outsourcing include motivation, client/vendor relationship, types of outsourcing, risk analysis and evaluation, contractual and legal aspects, and data confidentiality. It is pivotal to understand how IT outsourcing strategies work in Kuwait, especially in the public health care sector.

Background on Kuwait

The state of Kuwait lies on the North-east shore of the Arabian Peninsula, bordered in the East by the Arabian Gulf, in the North by

Iraq, and in the South and West by Saudi Arabia. Kuwait is an oil-rich country, which is fairly homogenous in terms of its level of urbanisation and infrastructure development. About 98 per cent of the population lives in urban areas with easy access to paved roads, water and electricity supply, sewage facilities, schools, supermarkets, and health facilities. Moreover, the government has been securing infrastructures of basic utilities such as power stations, water desalination, means of transport and communication, ports ... etc.

Kuwait is considered to be a developing country with a stable political system, a relatively liberal economic policy and an increasingly significant role in the global economy. Unfortunately, very little research has been undertaken on the status of IS in Kuwait. Kuwait has been under-researched in the IS/IT literature (Alshawaf, 2001).

Health care in Kuwait

The health care sector has been occupying a tremendous position among the social development sector, as it lies with the responsibility to prevent disease and protect people's health. To secure complete coverage of the health care services, Kuwait has adopted the health-zone system. Each zone includes a public hospital that receives cases which require special medical care, and also those who are referred from the public health centres which render primary care and the affiliated specialised health centres which are spread across the country according to the population density of each district.

This research is organised as follows. Section 2 discusses the contingency theory with its components the environmental and cultural factors. Section 3 sets out the research approach used in the study. Section 4 provides a discussion of the findings of the research project. Section 5 introduces an IS/IT outsourcing model in health care systems, and argues the contingency approach with the inclusion of the environmental and cultural factors. The last section draws some conclusions and implications of the research.

2. Contingency theory

Contingency theory was first introduced by Lawrance and Lorsch (1967) and later expanded by Kast and Rosenzweig (1973).

The theory states that there is no single best mechanism to achieve the necessary fit among organisational factors and environment in order to attain a high performance for an organisation. Contingency theory proposes that different strategies are appropriate for each business settings. Differs from the universal view by emphasising "it all depends" (Myers et al., 1997, p. 18). In fact, organisations are embedded in their environment. Moreover, contingency theory has been the basis of a large body of research concerning the technology-organisation interface.

Environmental factors

It is recognised that successful implementations of IT projects is a complex task dependent on factors both internal and external to the organisation (Kling, 1980; Hirschheim, 1986). Teo et al. (1998, p. 100) define environmental factors as "those changes in business environment that create threats as well as opportunities for an organisation and are usually beyond the control of management". Another definition is provided by Duncan (1972), "external environment is the set of relevant physical and social factors outside the boundary of an organisation that are taken into consideration during organisational decision making". Farmer and Richman (1970) identified four categories of environmental constraints – educational, sociological-cultural, legal-political, and economic. Also, Skinner (1964) presented a model which is slightly different from Farmer and Richman's model. Skinner identified four interacting systems. They are technological, cultural, political, and economic. Additionally, Teo et al. (1998) identify government support as "the most powerful institutional force affecting innovation" and a very important environmental factor. Furthermore, it is suggested that governmental policies that enhance the ability of an organisation to compete in the marketplace have a strong positive influence on the technology development strategy at the organisational level. Badri et al. (2000, p. 155) place much emphasis on what they call "neglected environment variables in the developing countries". These are government laws and regulations and political considerations.

Environmental factors can both contribute to or hinder the successful implementation of

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IT projects in developing countries (Enns and Huff, 1999). Palvia (1998) has suggested that studies of the success of global IT should seriously consider the inclusion of broad categories of independent variables. These include consideration of the economic, technological, cultural, and political/ regulatory environments. Others have suggested that geography and climate can be important considerations as well (e.g. Janczewski, 1992; Ein-Dor et al., 1993). Studying the political and economic environment in any developing country is also considered to be an important step towards the full understanding and comprehension of environmental factors (Enns and Huff, 1999). For example, looking at different political and economic factors (e.g. the democratisation process, the privatisation process, political parties, economic situation, currency value, bureaucracy, and so on). At the same time, the economic environment of a developing country has a clear impact on the short and long term success of IS/IT implementation (Enns and Huff, 1999).

National culture factors

An increasing number of IS/IT applications and projects are being implemented across national and cultural boundaries (Shore and Venkatachalam, 1996). During this transfer process many of these IT applications and projects encounter problems which can be attributed to the differences between the national culture of the headquarters and host organisations (Deans and Ricks, 1993). The lack of success in the IT diffusion in the GCC states can be partially attributed to social and cultural factors (Yavas et al., 1992).

National culture has gained much importance in the study of organisations and management despite the many difficulties inherited (related to) its conceptualisation, operationalisation, and interpretation (Tayeb, 1994).

Culture has been defined by Hofstede (1991, p. 5) as "the collective programming of the mind that distinguishes the members of one category of people from those of another". According to Hofstede (1980), national culture shapes the type of organisations and the nature of social structure. It is widely believed that culture has a definite influence on organisations and their management (Hall, 1990). For example,

Ein-Dor et al. (1993) discussed the effects of national culture on the implementation of international IT applications. In addition, Burn et al. (1997) have divided culture into two main types: subjective and objective. The former refers to values, behavioural norms and attitudes, religion, and language. The latter refers to infrastructure, technology, and other material objects. This division is important since it is the unique combination of the two (subjective and objective) which defines how information is communicated in a society. To explain more, IT vendors, mostly from developed countries, tend to focus on technical issues for solving "information" problems of developing countries, but the urgent need is to deal with management of the technology. Previous research found differences between developed and developing countries along certain cultural dimensions (Hofstede, 1980). Therefore, one cannot rely on prescriptions suggested by IS researchers in developed countries to understand IS/IT issues in the developing countries without empirical evidence supporting the applicability of these guidelines.

3. Research methodology

The following section outlines the research methodology used in this study. It covers the research approach, questionnaire design, and finally semi-structured interviews.

Research approach

The lack of systematic research into the IS/IT outsourcing phenomenon in Kuwait's context justifies the exploratory nature of this study. There is a need to establish an integrative and holistic view on IS/IT outsourcing practices in developing countries. This type of research calls for knowledge about the "what" (structure) and "how" (process) components of implementation. The structural aspects of research require the use of quantitative methods, while the process aspects are best investigated using qualitative methods. This calls for a combination of both methods (triangulation) to address the different aspects of this study.

In this study, a methodological triangulation approach is adopted through the use of a national case study, whereby a

survey questionnaire is used as the selected quantitative method ("hard" data), and semi-structured interview to collect the qualitative data ("soft" data).

Case study research is an accepted research strategy in the IS discipline. Many researchers have used the case study approach as their research strategy (see, for example, Benbasat *et al.*, 1987; Lee, 1989; Eisenhardt, 1989; Galliers, 1992; Gable, 1994; Yin, 1994; Walsham, 1995; Cavaye, 1996; De Looff, 1996). The case study approach refers to an in-depth study or investigation of a contemporary phenomenon using multiple sources of evidence within its real-life context (Yin, 1994).

As a research strategy, case studies are commonly used techniques for developing generalisations and theoretical propositions. They are a particularly powerful technique to answer *how* and *why* questions. The case study methodology has been used by others to investigate public sector information systems (Remenyi, 1990). In this study, research is based on both quantitative and qualitative evidence (Kaplan and Duchon, 1988; Gable, 1994).

This study employed a case study strategy because the authors were interested in answers to *how* and *why* questions and because the study was partly exploratory.

Questionnaire design

The questionnaire was designed to obtain a comprehensive view of IS/IT outsourcing practices in Kuwait. It was designed to identify the current framework of IT outsourcing practices in the different Kuwaiti public organisations.

The survey questionnaire drew upon previous studies of IT outsourcing practices and general IT (Lacity and Hirschheim, 1993; Currie, 1995; Lacity and Willcocks, 1998; Willcocks and Kern, 1998). The questionnaire consisted of seven main categories with mainly closed questions. In addition, two final open-ended summary questions were used. The estimated time for answering the questionnaire was approximately 30 minutes, and perhaps just as important it required no financial or confidential data. The general structure of the questionnaire was as follows: organisational profile; IT department profiles and plans; outsourcing terminology and issues; outsourcing decision process; training and

educational issues; personal and job-related profile; and general comments. Five possible responses were provided (strongly agree, agree, undecided, disagree, strongly disagree). This type of question was used because it was deemed to be efficient, specific in measuring attitudes, and relatively easy to complete (Robson, 1993).

In order to check the applicability of the questionnaire, it was pre-tested on a number of organisations in the state of Kuwait. A revised survey questionnaire was then dispatched to the organisational targets. Where previous organisational experience with IS/IT outsourcing was identified, further copies of the survey questionnaire were distributed to other key members of the IT department. The survey questionnaire was the main source of evidence in this study.

Semi-structured interviews

Marshall and Rossman (1989) provide a framework for matching research purpose and strategy with research methods and data capture techniques. They suggest that when the research study has a descriptive and exploratory focus, as was the case in this study, appropriate research strategies are field studies comprising in-depth interviews. As Mintzberg (1979, p. 587) states, "semi-structured interviews provide a controlled framework which facilitates analysis but also allows for the collection of 'soft' anecdotal data".

Interviews were conducted throughout the period of data collection. In total 11 people, selected in light of their qualifications and involvement in their organisations, were interviewed, including departmental heads and senior IT managers (see Table I). The interviews were semi-structured. Interviews varied in length from around one hour to one and a half hours, although some respondents agreed to have follow-up interviews when more information was needed. Interviews were recorded to free the interviewer from note taking and to increase the accuracy of

Table I Summary of semi-structured interviews

Number of interviews	Interviewee	Sector
5	IT managers	Public
4	Senior IS/IT staff	Public
2	IT consultants	Public
Total 11		

data collection. Interviews were conducted in both English and Arabic, because the interviewees were multi-cultural originating from different nationalities. Recordings were later transcribed, and the data were organised and analysed in terms of the research model. Three interviews were not recorded due to the sensitivity of the issues which were discussed. All data obtained from interviews and documents were consolidated and linked together to create a picture of the entire IT outsourcing process. A content analysis (Remenyi, 1992) was used to discover important patterns from the data. Remenyi (1992, p. 76) argues that content analysis is "a process of investigating the frequency and intensity with which concepts are addressed in the text".

The analysis focussed on distilling motivations, risks, vendor selection criteria, client/vendor relationships, contract drafting and post-contract experience, the effect of cultural and environmental constraints, and project success and failure factors.

4. Discussion and analysis

Set out in this section are some findings from the data collected in Kuwait. The key issues considered are, risk analysis and evaluation, contractual and legal issues, and motivation of the organisations, which were selected to take part in this survey. The percentages quoted in the following discussion indicate the number of respondents who agreed or strongly agreed with the relevant statement, the mean is a weighted calculation with greater weight given to strongly agree. The factors are ranked according to the mean. This exploratory case study of IS/IT outsourcing practices and current trends in Kuwait has led to several conclusions.

Risk analysis and evaluation
IT outsourcing, as a legitimate management strategy has deficiencies and drawbacks as well as several advantages. This study has unveiled the main disadvantages to IS/IT outsourcing in the public sector of Kuwait, including the public health sector. Table II shows the mean and standard deviation of each risk factor in the Kuwait public sector as well as the scale measure used for each criterion.

More specifically, the security issue ranked first in studying risk factors in considering IT outsourcing. In fact, the figure of 62 per cent should come as no surprise since data confidentiality always has very high priority in the region. Indeed, this finding is consistent with that of Badri (1992); he found IS/IT security has been a prominent and top priority issue in the Arab gulf region. In addition, "ability to operate or manage new systems" ranked as the second risk factor while considering outsourcing. It is a common perception that an internal IT department cannot manage effectively and soundly the transition to new technological platforms. One possible explanation is that the organisation, as discussed earlier, has no internal capability to handle or manage the new systems.

It was also interesting to note that hidden costs (i.e. unspecified in the contract) are considered to be a major drawback. In addition, a serious concern is that vendors may charge excessive fees for "additional" services, services which would have been thought to be included in the scope of the contract (Lacity and Hirschheim, 1993). Many governments have experienced a situation where in the first year the IT vendor low-balled the price of the contract, only to raise the price substantially in subsequent years.

The respondents were also pointing to "inadequate planning and management" as the next pitfall of IT outsourcing. In a study of computer-based information systems (CBIS) in the Arabian Gulf countries by Abdul-Gader and Alangari (1994, p. 82), it was found that "lack of appropriate IT planning" was by far "the most significant obstacle towards a successful CBIS diffusion".

It is also interesting to note that the public sector in Kuwait has been encountering the same difficulties as others in developed nations are experiencing: tighter budgets, lack of specialised skills in the government sector, downsizing of the government, and so on (Dorsi, 1998).

Contractual and legal issues
The research was interested in examining some of the contractual and legal issues. Defining the legal contract between the client and IT vendor is a pivotal issue in the IT environment in developing countries in

Table II Ranking of risk factors in IS/IT outsourcing in public sector

Factor	Rank	Mean	Standard deviation	Scale
Security issues (data confidentiality)	1	3.77	1.09	1-5
Ability to operate or manage new systems	2[a]	3.46	0.97	1-5
Loss of key IT employees	2[a]	3.46	1.27	1-5
Hidden cost (unspecified in the contract)	4[a]	3.31	1.18	1-5
Inadequate planning and management	4[a]	3.31	1.11	1-5
Lack of prior outsourcing experience	4[a]	3.31	1.03	1-5
Rapid pace of technological change	7	3.23	1.01	1-5
Loss of in-house IT capability	8	3.15	1.28	1-5
Loss of innovative ability	9	2.92	1.04	1-5
Organisation resistance	10	2.85	1.14	1-5
Loss of flexibility/control	11	2.77	1.33	1-5

Notes: [a]Denotes tie for risk factor

general and Kuwait in particular. There is a lack of rigorous legislation relevant to the computer-related technology environment in Kuwait. All the IT managers have expressed concern over this. Matters are made even worse when the multi-national companies (MNCs) come to Kuwait – they avoid the Kuwaiti local laws since they do not protect these firms on any IT-related issues.

In practical terms, the main type of contract which has been used in the Kuwait public sector is the time and materials (open-ended) contract, where IT vendors were given an open-ended financial contract, and expected to invoice the client at the end of the job. This kind of "loose contract" in the UK was described as "run and run" and to be avoided (Currie, 1996, p. 233).

The respondents were asked where they would settle their legal disputes in the case of such a possibility; 61.5 per cent of the respondents favoured settling cases locally despite the fact the legal system is not well-prepared for IT-related issues.

Motivation

This question proposed to the respondents a number of reasons that could have been a motivation for the public organisations to outsource IT functions. The respondents were asked to rate on a five-point scale the degree of agreement with each reason.

The percentages quoted in the following discussion indicate the number of respondents who agreed or strongly agreed with the relevant statement, the mean is a weighted calculation with greater weight given to strongly agree. The reasons are ranked according to the mean.

Table III shows the mean and standard deviation of each motivating factor as well as the scale measure used for each factor.

It was notable that "resources are not available internally" was ranked the most prominent factor in motivating IT outsourcing in the Kuwaiti public sector (see Table III). In fact, all the respondents (100 per cent) agreed that this factor is the most important. Organisations often outsource because they do not have access to the required resources within the organisation, whether managerial, software, hardware or manpower. Currie (1995) found "resources acquisition" was an important reason for investigating IT outsourcing. Lacity and Hirschheim (1993) identified "the need to acquire resources" to be the second of the "participant's reasons for initiating outsourcing evaluation". It should be noted here, however, that some vendors, while "negotiating outsourcing deals", offer the client organisations "sweeteners" in the form of latest IT technology and access to scarce IT skills (Currie, 1995). A further point which should be made here is that this parameter is closely linked to other factors, which will be discussed later on.

Also very important, "gaining access to leading-edge technology" was a prime reason for outsourcing; it has attracted 76.9 per cent of the respondents' views. Seeking an external vendor, therefore, would fulfil this demand by the acquisition of the most sophisticated IT technology. One probable explanation for this result is that the IT managers were scared of being left with old IT technology. They seek the newest

Table III Ranking of motivating reasons for IS/IT outsourcing in public sector

Motivating reasons	Rank	Mean	Standard deviation	Scale
Resources are not available internally	1	4.46	0.52	1-5
Gain access to leading-edge technology	2	4.23	1.01	1-5
Faster application development	3	4.15	0.69	1-5
Shortage of technical staff	4	4.08	0.64	1-5
Rapid pace of technological change	5	4.00	0.82	1-5
Reduce and control of operating cost	6	3.85	1.34	1-5
Enhancement of IT staff expertise	7	3.77	1.01	1-5
Increased availability of service providers (vendors)	8[a]	3.69	1.18	1-5
Improve core business competence	8[a]	3.69	0.85	1-5
Enhance flexibility and responsiveness	10	3.62	0.77	1-5

Note: *Denotes tie for motivating factor

technology without realising that there should be adequate IT strategic planning, especially considering the lack of sufficient computer knowledge among middle and top management of the public sector, as already noted (Abdul-Gader, 1999).

Another important dimension that captured a high level of agreement was faster application development. Indeed, an overwhelming majority (84.6 per cent) of the respondents agreed on that factor. It can be argued that IT service providers have the capability to produce computer software applications in a faster and more efficient way than in-house developers. This can be attributed to the economies of scale, where the overall impression gained was that the IT service providers could achieve significant savings through serving multiple users simultaneously. The most telling insight was that most IT managers strongly believed that third party IT service providers can develop and maintain application software in a much more efficient and systematic way. A possible explanation is that IT outsourcing can allow organisations to concentrate on leading edge software, as they do not have to devote scarce resources to maintain or upgrade old software.

With regard to the fourth factor, shortage of technical staff, that was stimulating outsourcing, it was found that 84.6 per cent of the respondents have come to accept this finding. Skills shortage became (and remains) a serious impediment to implementation of technical strategies, and therefore this factor will be a leading motivating factor (Currie, 1995). A similar difficulty was found in the US public

administration as "government agencies had had trouble attracting and retaining IS professionals because of below-market salaries" (Lacity and Willcocks, 1997, p. 87). On the ground, this means that the public sector has been facing a mounting shortage in its technical workforce, which would adversely affect its performance. Clearly, this shortage of technical skills has a direct relationship with the first reason mentioned earlier. It is also worth noting here that, during the interviews, the IT managers were specifically pointing out that "shortage of IT skills" has increased at an unprecedented rate. With these considerations in mind, it is interesting to note that in the study done by Currie (1996, p. 234), it was evident that skills shortages in UK government agencies and NHS Trusts would "pose a problem for managers attempting to put in an in-house bid to run IT services". It is also believed that IT outsourcing can reduce risk and uncertainty by employing an external IT services provider and will add value to the organisation in the long term, which was a strong motivation for many organisations in the developed economies (Lacity and Hirschheim, 1993).

The most frequently cited factor in the IT outsourcing literature is cost reduction (see, for example, Mclellan et al., 1995; The Outsourcing Institute, 1998). It was ranked sixth in this study, although it was evident that one of the main drivers of outsourcing was cost reductions. The majority of managers (61.6 per cent) have recognised this fact, as public sector ministries have been under tighter budget constraints, required to cut costs, increase the level of services, and

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provide access to new IT technologies. In a similar case, Lacity and Willcocks (1997) found government officials in the USA seriously considering the outsourcing option because of the cost containment pressure. A conclusion can be drawn at this level, that cost reduction was thought to be the most significant impetus for IS/IT outsourcing, but cost cutting is not the only motive. IT outsourcing can also "deliver business and IT service improvements as well" (Rothery and Robertson, 1995, p. 110).

One final note to make here is that these motivations must be distinguished from the actual benefits that arise from outsourcing agreements, because it is often the case that the realised benefits are very different from the claimed (perceived) benefits that led managers to choose IS/IT outsourcing strategy.

Cultural and environmental issues

The cultural factors can be described as the "unspoken factors". A number of cultural problems were cited during the interviews. For example, the IT managers in the public sector fear that IS/IT outsourcing may cause some loss of their "authoritarian type of governance" as a result of the sharing of management responsibilities during any outsourcing arrangements with the IT service provider. It is being described as "power-sharing". In addition, most, if not all, of the IT vendors provide expatriate IT manpower who can be described as "newcomers" to a totally new environment and culture. It takes tedious efforts and huge amounts of time to understand the "new" culture and overcome all communication barriers between the user/client and IT service providers. As a matter of fact, many failed IT projects in government institutions were attributed to the "cultural shock" and lack of understanding of the environmental factors. Moreover, some IS managers from the governmental institutions talked about the "political lobbying and favouritism" by some senior executives when contracting out for IT services to external IT vendors which often occur at the expense of IS development within the organisation. At the same time, there are no well-established IT vendors to provide know-how IS/IT services in Kuwait although there are many well-known MNCs in the country. Along the same lines, many respondents complained of the poor and

inefficient IT services that were provided by vendors, including major international names. Those firms are limited to selling hardware, ready-made software packages, providing some IT consultations, and so on. They are not fully prepared to deal with the management side of IS/IT outsourcing arrangements, especially considering medium to long periods of time (five to 10 years). This may be explained, as MNCs are perhaps aware of political instability, and cultural and social constraints inhibiting them from engaging in long period contracts.

Also equally important, Collins and Millen, (1995) found from their empirical research that the most cited obstacle to implementation was "developing working relations between in-house and outside personnel" (Collins and Millen, 1995, p. 10). Also, another concern raised by the American organisations is in regard to the "cultural fit" between the "newcomers" and the organisation as to what extent the "outsiders" may be familiar with cultural norms of the organisation. In addition, the difficulties of integrating the newcomers with in-house personnel may be attributed to the low involvement of human resource managers in outsourcing decisions (Collins and Millen, 1995).

5. An IS/IT outsourcing model in the health care system

As mentioned earlier, outsourcing has been considered as a viable option in the health care sector (Surpin and Weideman, 1999). The health care industry has recognised the importance of outsourcing. According to Modern Health Care's 1996 survey of contract management companies, "nearly every category of the top 20 outsourcing areas in hospitals registered at least double-digit gains". As Surpin and Weideman (1999, p. 4) state, "by drawing on the expertise and the efficiency of vendors who are specialist in their fields, they can free internal management and resources from providing basic services to focussing on the development of superior capabilities in areas that are critical to their future survival and growth". A framework is developed to facilitate the model of IT outsourcing in the health care sector. At the forefront, outsourcing should be considered

as a "strategic tool" and not to be taken as an immediate solution for a current dilemma. The outsourcing strategy should be aligned with the overall business objectives of the health organisation. This outsourcing strategy should give the appropriate "blueprint" and set goals for each process. It is important to note that the organisation should develop and maintain a balance between vision and resources. At the same time, Surpin and Weideman (1999) suggest health care organisations develop a "strategic analysis" plan including:

- Improving focus on distinctive competencies where the health organisations should identify areas of expertise that are important to the success of their institutions. It is therefore important to separate the vital services which must be provided in-house from less critical services that can be contracted to external suppliers.
- Responding to market opportunities, where outsourcing can help health institutions to respond more rapidly to market changes that affect their organisations.

A contingency approach

In order for IS/IT outsourcing practices and arrangements to succeed in the developing countries context, a number of interacting variables must be taken into consideration. IT projects are designed and implemented within a social context consisting of economic, political, cultural, and behavioural factors which differ greatly between societies and countries. Failure to take account of such differences can inhibit the adoption of IT and increase the risk of failure of new IT systems implementation. From this background, it can therefore be concluded that a useful contingency model that incorporates the interrelationships among these critical factors is developed. According to the model depicted in Figure 1, a deep understanding of the environmental factors should be considered. It is being characterised as the key component of the success. Environmental factors can vary from educational and technological status, national IT strategy and government support (e.g. protecting intellectual property rights, IT resources, government rules and regulations, etc.), to political, economic, and legal policies.

At the same time, cultural and societal factors (e.g. language and effective cross-communications, behavioural attitudes and norms, etc.) also must be taken into careful consideration. Many IT projects have failed in the Gulf area due a the lack of understanding of the cultural factors. In addition, for the successful adoption of IT outsourcing arrangements, there must be a close look and constant evaluation of the risk, motivation, and contractual arrangement factors as presented in Figure 1.

Implications and conclusion

This paper reports on a research study on IS/IT outsourcing practices in public sector organisations, including the Ministry of Public Health in Kuwait. The main focus of this research was to address several outsourcing fundamental issues concerning the phenomenon. The health care industry has recognised the importance of outsourcing. This study has employed the national case study research methodology to ascertain its findings. The study has revealed many important aspects of IS/IT outsourcing practices in Kuwait's context. One important observation from the above discussion is that IS/IT outsourcing is a complex activity with many different variants and constraints, therefore assessing the benefits and risks, of outsourcing is both a challenge to the client and IT service provider organisations. At the same time, a full consideration of the cultural and environmental factors should be taken into account while embracing IS/IT outsourcing deals. Overall, outsourcing decisions must be based on an understanding and examination of all inter-related issues. Organisations must not consider outsourcing as a quick fix for their weak IT management (Earl, 1996). However, a multi-sourcing strategy seems to be effective when organisations insource their strategic IT functions and assign outsourcing of non-critical (i.e. non-core) components to external service providers (Lacity et al., 1996).

From the quantitative analysis and the interviews, including with a senior official in the Kuwaiti government (Ministry of Planning), it can be can predicted that IS/IT outsourcing practices will be increasing in the foreseeable future in the public sector in

Figure 1 A contingency model of successful implementation of IS/IT outsourcing practices in developing countries
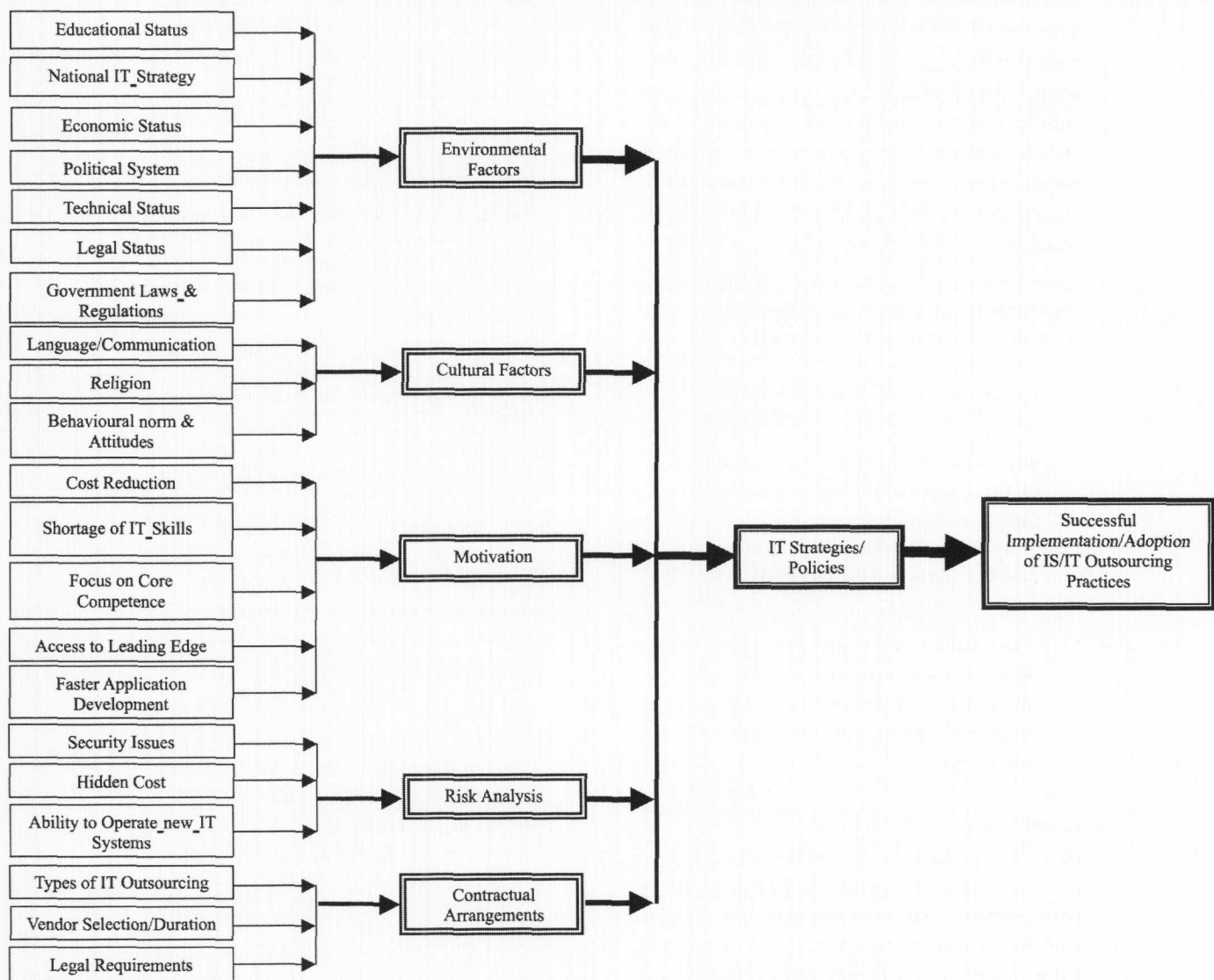
Kuwait, especially in the public health care sector. Furthermore, this research provides an opportunity and opens up new areas of future work.

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