The IS–business relationship and its implications for performance: An empirical study of South African and Australian organisations

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Abstract

Lack of a close 'IS-business relationship' has been described as a potential inhibitor to improving the contribution that information systems (IS) make to business performance. Yet the value of specific dimensions of the IS-business relationship remains to be demonstrated by empirically confirming their link to IS performance. Using data collected from 167 South African and Australian companies, this study examined the effect of three dimensions of the IS-business relationship, namely commitment, mutual understanding and shared vision, on IS performance. The study also examines the interrelationship amongst the 'relationship' dimensions. Results revealed that a strong IS-business relationship is a significant determinant of IS performance. Organisations more successful in their use of IS are characterized by strong commitment on the part of the business to IS efforts, higher levels of IS understanding of the business, and a long-term agreement, between business and IS executives, on IS priorities. Results have important implications for organisations looking to improve the contribution of IS to organisational performance.

Keywords: IS-Business Relationship, IS Performance, Commitment, Understanding, Shared Vision

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1. Introduction

There has been increasing attention in the information systems (IS) literature to the concept of an 'IS-business relationship'. A strong relationship has been recognised as an important IS capability (Peppard, 2001) and a major IS asset (Ross, Beath and Goodhue, 1996). A strong relationship has been described as necessary for facilitating the effective use of IS (Rockart, Earl and Ross, 1996; Feeny and Willcocks, 1998), while lack of a close relationship has been identified as an inhibitor to the appropriate application of information technology (IT) (Luftman and Brier, 1999). Early studies recognized that differences between IS and users result in the shortcomings of systems (see Kaiser and Srinivasan, 1982), and more recently a strong IS-business relationship has been described as improving IS performance by moving IS away from a focus on self-interest toward joint, mutually dependent action with the business (Henderson, 1990). However, the IS-business relationship is difficult to define and has been conceptualized differently in prior IS research. It has been referred to as IS-business co-ownership (Avital and Vandenbosch, 2000) and the IS-business partnership (Henderson, 1990). Moreover, it has been reflected in empirical studies in constructs such as "shared knowledge", defined as "an understanding and appreciation among IS and line managers for the technologies and processes that affect their mutual performance" (Nelson and Cooprider, 1996: 411). It is also evident in Sabherwal's (1999) "organizational integration" construct, which he defined as the state of collaboration existing among IS and organisational units. Bassellier and Benbasat (2004) also recently addressed the IS-business relationship in their study of the business competence of IS professionals, which they argued was a determinant of their intentions to engage and maintain partnership with business clients. In their recent case study, Coughlan, Lycett and Macredie (2005) focused on the role of communication in bridging the IS-business relationship gap.

Despite this recent attention, the value of specific attributes of an enduring relationship between IS and business remains to be demonstrated by empirically confirming their link to IS performance. Reich and Benbasat (1996, 2000) identified three dimensions of a strong IS-business relationship, namely *commitment*, *mutual understanding* and *shared vision*, which form part of their "social alignment" construct. Being the most comprehensive conceptualization existing in the IS literature to date, the IS-business relationship is defined here in terms of these three relational attributes. This conceptualization places the focus at the managerial rather than end-user level of the IS-business relationship and allows for a distinction to be made between the constructs that reflect a strong relationship (commitment, mutual understanding and shared vision), and constructs that are better understood as systems of relationship building e.g. channels of communication, frequency of interaction and existence of joint planning systems.

The thesis of this paper is that commitment, mutual understanding and shared vision are important dimensions of the IS-business relationship and their absence will compromise IS performance. This paper thus extends our understanding of the importance of a strong relationship by empirically testing the effect of commitment, mutual understanding and

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shared vision on a dependent IS performance measure. These relationships are examined in companies drawn from two different national contexts, namely South Africa and Australia. For those business and IS managers seeking to improve IS performance, this paper provides an understanding of why the IS-business relationship impacts IS performance and provides empirical evidence to support the need for strengthening it. Consequently, managers will be in a better position to concentrate on those managerial practices and organisational arrangements that enable strong relationships to be formed.

The following section of this paper expands upon the three dimensions of the IS-business relationship and hypothesizes their connection to IS performance. This is followed by a description of the research methodology. Empirical results are discussed and implications for practice derived. Suggestions for future research are outlined prior to the conclusion.

2. Theoretical Background and Hypotheses

This paper conceptualizes IS performance as the *contribution* that IS makes to supporting and shaping the host organisation's objectives. This is consistent with Sabherwal's (1999) conceptualization of IS success, which focuses on "the contribution of IS products" to organisational success, and it is similarly based on Premkumar and King (1994a) and Teo's (1994) "contribution of IS to organisational performance" variable. This performance measure reflects the IS function's responsibility to facilitate the organisation's core business (Remenyi, 1996) and improve business performance (Moad, 1993).

The three dimensions of the IS-business relationship are discussed next and their relationship to IS performance is hypothesized.

The concept of **commitment** is not new to disciplines such as marketing, human resource management and psychology. In the marketing literature, commitment is considered an important attribute of an enduring relationship and is usually defined as the desire to maintain a relationship with an organisation or individual and the willingness to put in additional effort to maintain that relationship (see Morgan and Hunt, 1994). Within the IS literature, Reich and Benbasat (1996) included commitment in their definition of IS-business "social alignment" but not in the empirical component of their study. They indicate that commitment is important in helping to predict successful implementation of IS objectives, and could be conceived of as being the feelings of business executives that IS objectives were important and relevant to them. When business values IS as a contributor to business performance and believes that IS objectives are important enough to warrant effort on their part to maintain a strong relationship with IS then relationship commitment exists. Commitment will ensure that business works together with IS, which will be characterized by enthusiasm and positive demonstrations of support for IS efforts (Enns, Huff and Golden, 2001). If, however, commitment is absent, the ability of IS to contribute to performance will be compromised as lack of support has been identified as a major inhibitor to the successful exploitation of information resources within an organisation (King, Grover and Hufnagel, 1989). Managerial hesitancy (Earl, 1993), negative attitudes and doubts (Galliers, 1994), and efforts to delay initiatives (Enns et al.,

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2001) will adversely affect IS performance, while commitment will translate into proactive cooperation (Morgan and Hunt, 1994), the provision of resources necessary for IS plan implementation and support for corresponding organisational changes (Ang and Teo, 1997). Commitment has been described as the foundation of an IS-business partnership (Henderson, 1990), as one of the most important factors influencing the successful implementation of strategic IS plans (Lederer and Sethi, 1988) and as the most important *enabler* of IS-business alignment (Luftman and Brier, 1999). It is thus hypothesized that:

Hypothesis 1: The greater the business commitment to IS, the greater will be IS performance

A second important dimension of the IS-business relationship is **mutual understanding**. An understanding by IS and business managers of each others' objectives and work environments, i.e. shared (mutual) knowledge, is increasingly being regarded as crucial to IS and organisational performance (Armstrong and Sambamurthy, 1999). This concept of mutual understanding emerges from knowledge based theories of the firm (Kaplan, Schenkel, von Krogh and Weber, 2001) to explain IS performance as a consequence of business and IS managers' reciprocal knowledge and understanding of each other's domains (see Armstrong and Sambamurthy, 1999). The concept is evident in the recent paper by Lee and Pai (2003) who suggest that CEOs must understand the capabilities of IS and be willing to exploit IS opportunities when they arise, while CIOs must understand the goals of the business to recognise appropriate IS opportunities (p 266). This is further supported by Luftman and Brier (1999) who include lack of understanding among the major inhibitors of IS-business strategy alignment. Henderson (1990) includes shared knowledge as an important determinant for the effective execution of the IS-business partnership. Partnership is not achieved via "translation" – it is not sufficient to translate the language of business into technology terms or vice versa – each partner must develop "an appreciation and understanding of the other's task environment" (Henderson, 1990). This supports Lederer and Burky's (1988) suggestion that IS failures can be prevented if IS management better understands business management's objectives and that such an understanding "was essential to the ability of the MIS function to make its contribution to the organization" (p 64). Nelson and Cooprider (1996) describe how misunderstandings between IS and the business can lead to inaccuracies in the interpretation of requirements and can create feelings of distance resulting in intergroup conflict. They recognise that the attainment of goals becomes impossible in the face of such conflict and find that shared knowledge is positively related to IS performance. Understanding is thus important to removing the barriers between IS and the business and increasing their ability to work towards a common goal (Nelson and Cooprider, 1996). It is thus hypothesized that:

Hypothesis 2a: The greater is IS understanding of the business, the greater will be IS performance
Hypothesis 2b: The greater is the business understanding of IS, the greater will be IS performance

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The third dimension of the IS-business relationship included in this study is that of **shared vision**. It was defined by Reich and Benbasat (1996) as a common vision for the future role of IT within the organisation i.e. a long-term *agreement* among IS and business executives as to how IT can help shape the business and contribute to its success in the more distant future (Reich and Benbasat, 1996). Feeny, Edwards and Simpson (1992) found that excellent CEO/CIO relationships occurred only when CEO and CIO shared the same vision of IT. The creation of shared vision ensures that the business and IS assume joint responsibility for IS performance (Kearns and Lederer, 2000). Interaction between IS and business executives and the integration of IS and business planning processes can be important mechanisms for creating shared vision, general agreement on IS priorities and better appreciation for the role of IS (Raghunathan and Raghunathan, 1989; Pyburn, 1983; Premkumar and King, 1994b; Segars and Grover, 1998). This will ensure that IS efforts can be directed toward the achievement of business goals. It follows that:

Hypothesis 3: The greater the degree of shared vision for IS, the greater will be IS performance

3. Research Methodology

3.1 Instrument
A structured questionnaire was constructed to capture information from senior IS executives on the dimensions of the IS-business relationship and IS performance. It must be noted that while alternate sources of evidence regarding the nature of the IS-business relationship could be used e.g. the examination of written documents or interviews of both IS and business executives to gauge levels of understanding (see Reich and Benbasat, 1996), the use of such techniques are inappropriate for a large scale survey and it was considered more feasible in this study to explore the opinions of the highest ranking IS executive in this regard. Multi-item scales were created based on definitions of commitment, understanding and shared vision provided by Reich and Benbasat (1996; 2000), Nelson and Cooprider (1996) and Enns et al. (2001). A five-point Likert scale ranging from 1 for "strongly disagree" to 5 for "strongly agree" was employed.

The questionnaire also contained items about IS performance. Consistent with the conceptualization of IS performance as the contribution that IS makes to supporting and shaping the host organisation's objectives, IS performance was measured by asking respondents to indicate the extent to which five financial, market oriented and operational measures of organisational performance could be attributed to IS (1 for "very little extent" to 5 for "very large extent"). These items were adapted from Premkumar (1989), Teo (1994), and Chan, Huff, Barclay and Copeland (1997).

Table 1 identifies each of the items (as they appeared on the questionnaire) together with corresponding literature support. The questionnaire also asked demographic questions about industry, organisation size, size of the IS function in terms of the number of IS/IT employees, and years of IS experience.

Prior to administration, the questionnaire was pretested for content validity, clarity and consistency by four IS researchers and two strategy consultants. The pretest was followed by a pilot study involving ten senior IS executives. Their suggestions were incorporated into the revised instrument.

Table 1 Here

3.2 Data Collection

A sampling frame consisting of 615 organisations was developed from the 2002 edition of "Who Owns Whom in South Africa" published by McGregor. Who Owns Whom is a comprehensive publication of information on major listed and unlisted companies within South Africa operating in all sectors of the economy and holding prominent positions in their industries. This list of companies was chosen because organisations included therein are medium to large firms and consequently are expected to be concerned with IT management issues and would likely be using IT for strategic purposes. The publication also provided a useful means of obtaining contact and address information for the intended respondents. In developing the desired sampling frame, pure holding and investment companies with no substantial operations of their own were omitted as were those foreign companies, primarily from neighbouring African states, included in the publication.

A second sampling frame was developed, which consisted of 540 public, listed and large private companies identified from Australia's "Business Who's Who". This is a comprehensive online resource providing information on Australian companies and their management teams.

The head of IS/IT within each organisation was selected as the targeted respondent. In those organisations where the responsibility for IS management practices lay with individual business units, the questionnaire was mailed to the senior IS executive of the organisation's primary or core business unit. The questionnaire together with the covering letter was mailed personally, where possible, to the targeted respondent in each organisation.

One hundred and twenty one (121) unique responses were received from South African organisations. This represents a response of 19.7%. However, after removing cases containing large amounts of missing data or those completed by inappropriate respondents, 116 useable South African (SA) responses remained. Fifty six (56) responses were received from Australian organisations. This represents a response rate of approximately 10%. Five cases were deleted as the respondents failed to complete a number of pages of the questionnaire. Thus 51 useable Australian (Aus) responses remained with enough complete data for meaningful statistical analysis.

3.3 Sample Profiles

The industry profile of responses is presented in Table 2. Large organisations are very well represented in the sample, with more than 60% of both samples consisting of organisations with more than 500 employees (see Table 3). Most respondents carry the

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title of IS manager. Respondent job titles are presented in Table 4. The average IS experience of South African organisations was 18 years (median = 17 years and range = 4 to 40 years), whilst for Australian organisations the mean was 19 years experience (median = 20 years and range = 3 to 40 years). A little over 25% of the South African sample and approximately 33% of the Australian sample had over 25 years of IS experience. Thus although, on average, it appears that Australian organisations have slightly more IS experience, there is no statistically significant difference in experience between the two samples (t = .799, p = .425).

Table 2 Here

Table 3 Here

Table 4 Here

4. Empirical Results

Descriptive statistics and Cronbach alphas of the research variables are provided in Table 5. All alpha values exceed minimum accepted cut-off levels thus establishing adequate scale reliability. To facilitate further analysis, composite scores were calculated as the arithmetic average of each variable's scale items weighted equally.

Table 5 Here

Mean values show that both South African and Australian respondent's perceive *business understanding of IS* to be relatively poor. Moreover, the average *commitment* score falls below the top ends of the scale. This suggests that IS executives in the two countries are still relatively dissatisfied with business understanding of and commitment to IS. However, they also report their own *(IS) understanding of the business* to be relatively low. Within the two countries there also appears to be room for improving the overall contribution of IS to organisational performance.

Table 6 shows the results of a correlation analysis. Hypotheses 1, 2a, 2b and 3 are largely supported in the Australian sample. In the South African sample, the relationship between *shared vision* and performance and between *business understanding of IS* and performance are not significant.

Table 6 Here

Within both samples, high IS performers report greater commitment from the business. Thus those businesses that demonstrate enthusiasm for the IS function's efforts, commit required resources, and maintain a strong working relationship with IS will be rewarded with higher IS performance. The strong correlation between IS understanding of the business and performance in both samples indicates that improving their understanding of the business is a clear responsibility of, and must become a key goal for, IS departments. Business understanding of IS had only a limited correlation with IS performance in the

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Australian sample (p < .10) and in the South African sample the relationship was not significant. This findings suggest that the impact of business understanding of IS on IS performance needs further exploration as the relationship might be mediated by other variables. For example, improved understanding may translate to increased commitment. This possibility is explored in the section which follows.

Moreover, amongst Australian firms, shared vision correlates significantly with IS performance, whilst within the South African sample this does not appear to be the case. This is a curious finding. There is a possibility that an organisation's capacity to implement the shared vision may moderate the shared vision-performance relationship or that the relationship depends on the role and organisational importance of IS. To test this possibility, a surrogate measure of IS/IT capacity and importance to the organisation was selected, namely the *size of the IS function* reflected in the number of IS/IT employees (including IS executives, managers, project managers, network and database administrators, analysts, programmers and IT operational personnel). Table 7 presents results of testing the moderator effect. Sub-group analysis was employed where firms were split into two groups reflecting large IS functions and small IS functions (based on a median split on IS function size). The correlation between shared vision and performance was assessed in each of the groups.

Table 7 Here

Results presented in Table 7 show that the shared vision-performance relationship is significant for organisations having larger IS functions but not smaller ones. This finding illustrates the importance of shared vision for organisations with greater dependence on IS and also suggests that organisations without the capacity to act upon their IS vision will not experience any performance improvements. Organisations must have the capacity to translate shared vision into action. Without such capacity, shared vision will not translate into improved performance.

4.1 Assessment of Path Model
To further explore the link between the IS-business relationship and performance, a structural model (Figure 1) is hypothesized. The model illustrates important interrelationships amongst the IS-business relationship constructs and hypothesizes their joint effects on IS performance.

Business understanding of IS as well as IS understanding of the business are hypothesized to be important factors facilitating the creation of a shared vision for IS. This is supported by Reich and Benbasat (2000) who identified that mutual knowledge will enhance communication between IS and business executives, which will in turn facilitate the creation of a long-term shared vision for IS.

Business understanding of IS is hypothesized to lead to increased commitment on the part of the business to supporting IS efforts. Prior studies have identified that knowledge of IS will influence business management's attitude toward IS/IT and consequently their involvement in IS initiatives and their perceptions of the relevance and importance of IS

(Feeny *et al.*, 1992). Shared vision, i.e. agreement between business and IS on the future role of IT, may also translate into increased management support for IS due to the belief that IS goals are relevant to business needs. Shared vision is thus hypothesized to impact business commitment to IS. In turn, commitment, shared vision and IS understanding of the business influence the dependent performance measure.

Figure 1 Here

The model presented in Figure 1 was tested using the partial least squares (PLS) approach to structural equation modelling (Chin, 1998). PLS-Graph software (version 3.0, build 1126) was employed. PLS tests both the measurement model (the relationships between the latent constructs and their indicators) and the structural model (relationship between the latent constructs). The South African and Australian samples were pooled for the purposes of this analysis[1]. Tests of the measurement model confirmed individual item reliability as all loadings were greater than 0.5 and all were significant at p<0.001 level. Scale reliability of the constructs was also established as Fornell and Larcker (1981) measures of internal consistency were greater than 0.80 and Cronbach alpha scores exceeded minimum suggested cut off levels (see Hair, Anderson, Tatham and Black, 1998: 80). Both convergent and discriminant validity were confirmed through an examination of the average variance extracted scores, which exceeded 0.60 for each construct and were greater than any of the inter-construct correlations.

Figure 2 presents the results of the test of the structural model. The significance of the paths in the model was determined by bootstrap resampling. Unlike maximum likelihood estimation techniques e.g. LISREL, within PLS there are no model fit statistics. Instead, R^2 statistics are used as the basis for determining the predictive power of the model.

Figure 2 Here

The tests of the structural model allowed important interrelationships amongst the IS-business relationship constructs, and their combined effects on performance, to be uncovered. The impact of understanding on the creation of shared vision is confirmed as paths linking business understanding of IS and IS understanding of business to shared vision are both significant and together they explain close to 36% of its variance. Business understanding of IS together with shared vision explain 33% of the variance in business commitment to IS. Commitment and IS understanding of the business have strong direct effects on performance. Consistent with the correlation analyses reported earlier, shared vision has only a moderate direct effect on performance but has an additional indirect effect through the commitment it helps secure. Together, the IS-

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[1] *T*-tests revealed that the two samples do not differ significantly with respect to IS-business relationship or IS performance measures. South African and Australian firms also did not differ with respect to IS budget as a percentage of revenue nor with respect to years of IS experience. Chi-square tests also revealed no significant difference between South African and Australian samples on industry representation ($\chi_{(6)} = 7.032$, p=.318) or organisation size ($\chi_{(4)} = 3.401$, p=.493). Satisfied that the two samples did not differ significantly with respect to the study's variables, the data was pooled (n=116+51=167).

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business relationship constructs explain 24% of the variance in IS contribution to organisational performance.

5. Discussion

The purpose of this study was to empirically confirm the effect of underlying dimensions of the IS-business relationship on IS performance within organisations drawn from two different national contexts.

Hypothesis 1 was supported in both the South African and Australian samples as commitment was significantly correlated with IS performance. This supports Reich and Benbasat's (1996) suggestion that business commitment to IS is important in helping to predict the successful implementation of IS objectives. Hypothesis 2a was confirmed in both samples as IS understanding of the business was significantly correlated with performance. Understanding by IS managers of the goals of the business will help them to recognise appropriate IS opportunities (Lee and Pai, 2003), blend IS capabilities with business requirements (Armstrong and Sambamurthy, 1999), and prevent IS failures (Lederer and Burky, 1988), thus ensuring maximum IS contribution to business performance. Hypothesis 2b received only limited support in the Australian sample and no support in the South African sample. This was a surprising finding given the perceived importance of business understanding of IS, which has been described together with IS understanding of the business as important to removing perceived distances and barriers between IS and the business (Nelson and Cooprider, 1996). However, the possibility that its relationship with performance might be mediated was confirmed in Figure 2. The figure shows business understanding of IS as significantly influencing the business's commitment to IS and the development of a shared vision with IS managers. It can thus be interpreted that its effect on performance occurs through the commitment and shared vision that it helps foster. Hypothesis 3 was supported in the Australian sample but not in the South African sample. Further testing revealed the moderating effect of IS capacity and importance to the organisation (reflected by the surrogate size variable) on the relationship between shared vision and performance. Moreover, Figure 2 was able to provide an additional insight into the effects of shared vision on performance. It shows that the business's commitment to IS efforts (and consequent IS performance) will occur when IS managers work with the business in leveraging their mutual understanding to establish a shared vision for the future role of IS within the organisation.

6. Implications for Practice

The above findings have practical implications for business and IS executives. This research has found that improving the IS-business relationship is not a matter of choice but rather a necessity if organisations want to improve the contribution of IS to the financial, operational and competitive position of the organisation. A strong IS-business relationship is reflected in business management's commitment to IS (supporting and rewarding the efforts of the IS function), IS management's understanding of the business and business management's understanding of IS, as well as shared agreement between IS

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and business managers on organisational IS priorities. When business understanding of IS is absent, it will be more difficult for IS managers to gain appropriate managerial commitment, and to create a shared vision for IS within the business. Therefore, strengthening business understanding of IS should become a key IS management priority. One way to strengthen business understanding of IS is to ensure that business managers are educated about IS technologies and opportunities, and that they participate actively in IS planning. Business managers should also be aware of the important role that they play in improving IS performance. Their understanding of IS and subsequent commitment to IS efforts will result in improved IS performance. Senior business managers should also actively seek to establish a shared vision with IS managers for organisational IS priorities. This will require regular communication and information flows between business and IS, which will act as important systems for relationship building. These strategies are likely to also prove useful in strengthening IS understanding of the business. IS managers, however, must not disregard the importance of IS capacity in ensuring that shared vision can be realized. The resources required for improving IS capacity are, however, unlikely to be forthcoming if IS does not improve business understanding of IS and does not demonstrate a good track record in contributing to business performance.

7. Future Research

Future research should extend the conceptualisation of the IS-business relationship to include dimensions of trust and mutual respect (see Nelson and Cooprider, 1996; Peppard, 2001). Future research should also extend this work by exploring the determinants of a strong IS-business relationship. Upper echelons theory may prove useful for exploring the extent to which IS executive status, and business and IS executives' backgrounds, prior experiences and attitudes impact upon the IS-business relationship. Additional organisational factors such as role of IS in the organisation, IS maturity, organisational structure, competitive intensity of the organisational environment, quality of IS planning processes, and the degree of IS-business interaction might usefully be explored for their effects on the various dimensions of the IS-business relationship. The relative importance of the dimensions across different contexts e.g. industry should also be assessed. Future work may wish to further examine the mechanisms through which shared vision can be translated into action and the role of intermediaries such as IS/IT capabilities. The process of consensus building amongst IS and business managers and the development of mutual understanding is worthy of further qualitative study. Moreover, the connection between the IS-business relationship and other important outcome variables or alternate conceptualizations of IS performance should be assessed.

8. Conclusion

This paper demonstrated that the IS-business relationship plays an important role in ensuring that IS makes a meaningful contribution to organisational performance. Data collected from both South African and Australian organisations was used to test the effects of business commitment to IS, IS-business mutual understanding and shared

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vision on the contribution of IS to organisational performance. Results showed that organisations more successful in their use of IS are characterized by strong commitment on the part of the business to IS efforts, higher levels of IS understanding of the business, and a long-term agreement, between business and IS executives, on IS priorities. The findings have important practical implications.

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Table 1: Measures of IS-Business Relationship and IS Performance

Please circle the extent to which you agree with each of the following statements relating to the relationship between IS and the business …
Commitment [a]
Business executives regard the achievement of IS/IT objectives as important to organisational success (Reich and Benbasat, 1996)
Business executives go out of their way to maintain a strong working relationship with IS managers (Morgan and Hunt, 1994)
Business executives frequently demonstrate enthusiasm for the IS function's efforts (Enns *et al.*, 2001)
IS Understands the Business [a]
IS executives have a good level of understanding of strategic business plans (Reich and Benbasat, 1996; Segars and Grover, 1998)
IS executives have a good level of understanding of the work environment of the business (Nelson and Cooprider, 1996)
Business Understands IS [a]
Business executives have a good level of understanding of the work environment of the IS function (Nelson and Cooprider, 1996)
Business executives have a good level of understanding of strategic IS plans (Reich and Benbasat, 1996)
Shared Vision [a]
Business and IS executives share a common vision for the long term role of IS within the organisation (Reich and Benbasat, 1996)
Business and IS executives agree on priorities for the organisational use of IS (Lederer and Salmela, 1996)
Business and IS executives agree on the key IS management issues affecting the organisation
Please circle the extent to which the following aspects of the organisational unit's performance can be attributed to IS…
IS Performance [b]
Growth in the organisational unit's market share attributable to IS (Premkumar, 1989; Teo, 1994; Chan *et al.*, 1997)
Growth in the organisational unit's profitability relative to competitors attributable to IS (Premkumar, 1989; Teo, 1994; Chan *et al.*, 1997)
Improved competitive position of the organisational unit attributable to IS (Premkumar, 1989; Teo, 1994)
Improved internal efficiency of the organisational unit's operations attributable to IS (Chan *et al.*, 1997)
Improved decision making effectiveness of the organisational unit attributable to IS (Silk, 1990)

a = measured on a 5-point scale 1 = strongly disagree to 5 = strongly agree

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b = measured on a 5-point scale 1 = very little extent to 5 = very large extent

Table 2: Respondents by Industry

Industry	Number of Respondents (Australia)	Number of Respondents (South Africa)
Manufacturing, Wholesale, Warehousing and Distribution	15	30
Financial Services, Banking and Insurance	7	27
Retail, Sales, Service, Hotels and Leisure	8	22
Mining, Construction and Engineering	6	15
IT, Telecommunications, Media and Publishing	4	12
Transportation and Logistics	6	6
Other	5	4
Total	51	116

Table 3: Respondents by Organisation Size

Size (number of employees)	Number of Respondents (Australia)	Number of Respondents (South Africa)
Less than 100	4	9
100 – 500	15	30
500 – 1000	11	15
1000 – 5000	13	32
More than 5000	8	30
Total	51	116

Table 4: Respondents by Job Title

Job Title	Number of Respondents (Australia)	Number of Respondents (South Africa)
Chief Information Officer	15	16
IS/IT Director	3	23
General Manager: IS/IT	3	14
IS/IT Manager	25	42

Chief Executive / MD	0	5
Other *	3	15
Missing	2	1
Total	51	116

* Other includes directors of finance, operations, strategic planning and technology

Table 5: Descriptive Statistics						
	No. of Items	**Mean**		**Std. Dev**		**Cronbach Alpha**	
		SA	Aus	SA	Aus	SA	Aus
Commitment	3	3.44	3.29	.69	.76	.78	.83
IS Understands Business	2	3.94	3.82	.71	.66	.70	.61
Business Understands IS	2	2.81	2.90	.86	.80	.78	.74
Shared Vision	3	3.50	3.46	.70	.74	.80	.81
IS Performance	5	3.23	3.20	.71	.62	.86	.77

Table 6: Relationship between IS Performance and Commitment, Mutual Understanding and Shared Vision								
	Commitment		**IS Understands Business**		**Business Understands IS**		**Shared Vision**	
	SA	Aus	SA	Aus	SA	Aus	SA	Aus
IS Performance	.433***	.375**	.245**	.555***	.051	.262[#]	.080	.344*

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, [#] $p < 0.10$

Table 7: Moderating Effect of Size on Shared Vision – Performance Relationship			
Relationship to Performance	Size of IS Function as Moderator		Z-score
	Large n = 52	Small n = 64	
South African sample	.255*	-.006	1.39
	Large n = 24	Small n = 27	
Australian sample	.672***	.132	2.28*

	Large n = 77	Small n = 90	
Pooled sample	.374***	.023	2.34*

* p <0.05 *** p < 0.001

Figure 1: Structural Model

Figure 2: PLS Results for Structural Model
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$