

UNCOVERING IMPLICIT LEADERSHIP BELIEFS: VARIATION BETWEEN INFORMATION TECHNOLOGY (IT) EXECUTIVES AND BUSINESS EXECUTIVES IN A PUBLIC SERVICE AGENCY

Glenn Stewart

Abstract

This paper reports on a study to determine the variation of perception of competent leadership and leadership success between the business executive and the information technology (IT) management communities. This study involved the industry partner's deputy CEO (Deputy Director General), his first line reports (Executive Directors of eight divisions), the CIO, the first line reports (IT Branch Managers) and key business and IT managers. A total of 24 interviews were conducted. The results of the interviews are analysed using phenomenographical techniques. We found that the focus of leadership behaviour is different for the IT community to that of the business community. IT managers are more focused on developing teams to be highly skilled and autonomous, whereas business executives are focused on developing and articulating a vision for their division. These differences show variations in the beliefs of 'good leadership', and may in part, explain issues in the relationships between the two communities. The results demonstrate the applicability of phenomenographical techniques to determining implicit leadership beliefs. The combined qualitative/quantitative methodology used in this study may be applicable in studying variations in the perception of leadership in cross-cultural teams and in expectations of leadership in virtual teams.

Keywords: Information systems management, relationship management, leadership; organisational culture; interpretivist perspective.

INTRODUCTION

Luftmann, Papp and Brier (1999) showed that the leadership of the information technology (IT) unit and the leadership exhibited by the IT executive in adopting innovation is both a critical enabler and inhibitor of aligning business and IT activity. They sought to determine the factors impacting on the alignment of IT and business activity and found that an important inhibitor to aligning IT and business activity was poor leadership practices from the IT management group. In particular, they report that strong IT leadership was the fifth most important enabler and that alignment required 'strong management, good working relationships, strong leadership, appropriate prioritization, trust and effective communications' (Luftmann, Papp & Brier 1999:1). Thus, we see that leadership is an important variable in allowing organisations to exploit IT for business value.

We sought to understand these relationships, the expressed leadership of the IT management team, and the underlying expectations for leadership as held by the IT and business management communities. We were not interested in developing a new model of leadership.

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Instead, we sought to determine the operant model of leadership in existence within a specific organisation.

This research was supported by an Australian Research Council Collaborative Research Grant. Our research partner was a large public sector agency seeking to improve business-IT relationships and improve IT management performance.¹ We had convinced the Industry Partner that leadership was a critical success factor for the business to achieve benefit from its significant IT investments. The objective of this project was to improve leadership practices within the agency in order to make more effective and strategic use of IT resources. The agency sees itself as a leader in management practices and has had some considerable successes in implementing large information systems.

The research phases were an historical analysis of the adoption and use of IT, the determination of the nature of the relationship between the business and IT units, the benchmarking of IT leadership practices, and their improvement. We were also seeking to determine if there were any variations in leadership expectations of managers between the executives and managers of the IT unit and those of the executives of business units within this organisation. This paper reports on the results of the Implicit Leadership Belief study.

LEADERSHIP BELIEFS AS A MODERATOR OF THE EVALUATION OF LEADERSHIP SUCCESS

A review of the literature has shown many different elements constraining the move to exploit IT. These include:

- a. the effect of leadership style in each stage of evolution in the use of information technology as a strategic weapon (Earl 1989, McFarlan & McKenney 1981);
- b. the elements moderating leadership in organisations undertaking significant transformation (Deetz, Tracy & Simpson, 2000);
- c. the use of transformational leadership to effect cultural change (Kotter, 1996; Deetz. Tracy & Simpson 2000); and
- d. the need for cultural change to move the organisation to view IT as a strategic weapon (Willcocks, Feeny & Islei 1997).

In addition, there are moderators to leadership expression and evaluation as shown in:

- a. the development of leadership skills as a function of life experience, personality and cognitive capacity (Kotter 1990);
- b. a possible moderating effect on the evaluation of leadership success caused by implicit beliefs of behaviours of leaders (Bryman 1994); and
- c. a possible moderating effect due to a social stereotype surrounding the notion of an IT professional (Snyder 1981;1984).

¹ We wish to acknowledge the support of both the Industry Partner and the Australian Research Council in conducting this research.

In this study, we sought to improve the leadership practices found within the IT unit of our industry partner. We searched for and found a validated theory and effective leadership development program, namely the Bass and Avolio Multi-factor Leadership Questionnaire, based on the theory of transformational leadership. We sought to measure performance of all IT managers according to this model, and thereby design, develop and implement an individual leadership development program for middle managers. This instrument would be used in a separate component of the research program.

Bryman (1992) stated that the MLQ suffers from problems associated with the perception of effectiveness by the evaluator. The high correlations found between the various outcomes and the independent variables of either model could be a product of the respondent's implicit leadership theory — or personal 'model of how effective leaders behave' (Bryman 1992, p.128; p. 129).

Bryman argues that the follower will more favourably interpret actions if those actions belong to the set of actions within the implicit model of leadership belief held by the follower: in other words, see actions that they expect from a 'good leader'. Thus, the evaluation of whether or not an individual is a good leader is dependent upon whether the leader portrays that behaviour and characteristics expected by the follower. Hence, reported perceptions are an artifact of the implicit beliefs held by the follower, rather than necessarily reflecting good or bad leadership actions.

Ehrlich, Meindl and Viellieu (1990) explored the interaction of these variables in a limited study of high technology contractors. They found some correlation bounding the follower's implicit beliefs to the perception of leader success, and argued for additional work in this area. In particular, they suggested that observations of natural events involving transformational leaders be undertaken prior, during and after the transitions faced by the organisation. They recommended that a longitudinal study be undertaken, but acknowledged the difficulty in gaining access to such data and transformational leaders.

Bryman (1995) called for research into this underlying implicit leadership belief state and suggests that qualitative research methods may assist in this endeavor. This formed a focal activity for this research project: how to reveal the implicit leadership belief state operating within an organisation.

We reasoned that a negative stereotype of the IT professional would attenuate their behaviour and the perception of the effectiveness of their activities and, in particular, the business expectations of the IT leader. The next section briefly discusses the notion of Social Stereotyping and how this process may influence the development of Implicit Leadership Beliefs.

Social Stereotyping: How Beliefs Create Reality

Snyder (1981, 1984) studied the manner in which beliefs create reality. Two groups of people were studied: an observer and an actor. The actor is the participant whose behaviour is expected to conform to a certain model of behaviour found within the stereotype. One study by Snyder and colleagues (1984) tracked the change in behaviour of people who were expected to be extraverts. People were randomly assigned to named groups of introverts and extraverts. Over time, the actor's behaviour and self-perception altered to conform to the

original expectation. Furthermore, all behaviour observed was interpreted in light of the expected behaviour. In other words, those people that were labeled as extraverts became more extraverted due to the rewards and opportunities presented to them. Conversely, those individuals who were identified as introverts exhibited more introverted behaviour and considered themselves to be more introverted.

Snyder's was not the first such study that showed the power of Social Stereotyping. Rosenthal and Jacob (1968) had identified this effect on the development of IQ in primary school children; those children identified as highly intelligent scored 10 IQ points higher on average than those children not so labeled, even though there was a random assignment to groups.

Thus, we see that this process of selective perception confirms the expectations from the stereotyped behaviour. The observer refuses to attend to disconfirmatory evidence, and will only see (attend to) those behaviours that resonate with the expected behaviour. The observer maps the seen behaviour to an expected behaviour in the stereotype set. In addition, stereotype expectations may give rise to opportunities, or to the lack of opportunities (Snyder 1984).

Business partners, expecting a certain set of behaviours through the negative stereotype of an IT professional, may selectively perceive only those behaviours that conform to this negative stereotype. Thus, expectations of a technical orientation, great attention to detail, of inflexibility, or anti-social tendencies are anticipated, and confirmed in partial actions. This effect, coupled with measurable differences in personality, and different paths to leadership and consequential differences in leadership experience, may work to confirm a negative perception of the IT professional as a leader.

There are specific implications for the expression of leadership by the IT leader, and the interpretation of their leadership action by the senior executive, particularly when a new IT leader is sought. If senior executives expect the imported leader to be transformational - (for example, visionary, team building, guided by a mission, etc.), then all behaviour of that person will be so interpreted. If senior executives expect such behaviour to succeed, then all data will be interpreted with that expectation in mind. Furthermore, the IT leader will start to see themselves as transformational and will behave accordingly.

IMPLICATIONS IN THE CURRENT STUDY

We thus see that the implicit leadership belief model described by Bryman (1992) is actually based on social stereotyping and the work of Rosenthal and Jacobsen and Snyder presents theory that allows us to predict the effects of the IT stereotype. In particular, these theories implies that a key moderator in the relation between the IT executive and the business unit managers may be the senior executive's expectations of an IT professional and IT leader. The stereotype of an IT professional includes: poor language skills, poor interpersonal skills, introversion, and good technical skills. This stereotypical belief will constrain business manager perception of the IT professional as an individual. If, in addition, the senior business executive has the expectation that the IT leader has these negative characteristics, then the leadership behaviour of the IS leader will be interpreted in that light. This may ultimately affect the performance of that IS leader.

This model also explains Bryman's objection to Bass and Avolio's work as being based on the implicit theories of leadership held by the raters. If raters expect a certain set of leadership behaviours, then their observations are selectively biased to recognise and accentuate those behaviours, while suppressing evidence at dissonance with the implicitly held theory.

Thus implicit leadership beliefs and negative stereotypes of the IT profession may be significant variables in attenuating the evaluation of IS/IT leadership.

RESEARCH DIRECTIONS FOR THIS STUDY

This study sought to determine the operant models of leadership within the partner organisation and, from there, determine if there were differences in implicit leadership beliefs between the business and IT management communities.

We sought to determine these beliefs of leadership as held by the business executives and to contrast these with the beliefs held by the IT management community. Any sources of difference could point to problems in the relationships, and significant differences in expectations could explain the lack of exploitation of IT by the business community.

We next discuss the method used for the research and then present the results.

METHOD

We used a qualitative research method called phenomenography to determine the operant model of leadership as held by the senior business executives, and the senior IT managers. In addition, a representative sample of the next level of business and IT managers were included in order to determine any variations in perceptions of leadership according to management level. We next briefly describe the research method, and then describe its application in the research context.

Phenomenography as a Research Paradigm

Phenomenography seeks to map *'the ways in which people experience, conceptualise and understand various aspects of the world around them'* (Marton 1988a, p. 178 quoted in Bruce 1994, p. 5-2). The goal of phenomenography is to reveal the variety of ways that a concept is understood, experienced or perceived. Its output is a classification system of what is actually experienced rather than seeking to confirm a theoretical construction of a phenomenon. Sample size in phenomenographic research is small with 20 samples considered to be large. This is due to the intensive nature of analyzing the responses.

A primary objective of phenomographical research is to detect sub-group variation (Marton 1981; 1986; 1994). Whereas phenomenology seeks to describe the essence of a conceptualisation, phenomenography seeks to establish its variation. Both methods are forms of qualitative research that determines, through analysis of interviews, written text or drawings, the experienced element of a concept in a given context.

Sandberg (1994: 48-49) says that phenomenography:

- a. has the potential to provide us with direct descriptions of a phenomenon;
- b. aims to describe conceptions in a holistic and integrated way;

- c. has the potential to capture a range of conceptions due to its focus on variations in people's experiences.

Though the resultant descriptions of leadership are of interest in their own right, in this study we were interested in any variations in perceptions of leadership as these variations may form a barrier in effective relationships between the IT function and the business unit.

The key outputs of phenomenographical research are: a set comprising of the categories of description (the referential component), an outcome space and an awareness structures. The 'awareness space' is the variations in sub-group perceptions or experiences. The graphical representation of the conceptions is called the 'outcome space' and its description is called the 'category of description'. The identification of these elements is derived from the source textual data, and a complete description refers to relevant direct quotes as evidence.

We could have raised questions on three different manifestations — an individual's known definition of leadership, a description of their experience of that leadership, or have sought to gain a synthesis of their experience and their implicit model of leadership. We were not interested in the respondents understanding of a textbook definition of leadership. Indeed, most managers in this study had never studied leadership as a formal subject. We were interested in their experiences of leading and, in particular, about differences in perception concerning leadership between the main sub-groups (business and IT professionals). We were most interested in their internal models of effective leadership, and thus sought to identify their conceptualisations of leadership success and competence. In particular, we sought to identify the existence of any variations in these experiences and conceptualisations, and render these differences in a graphical form. We sought to determine whether the variation in the experienced meaning of the phenomenon of leadership was a function of the sub-group.

When analysing results phenomenographically, one must discard influences from established theories or one's own perceptions. The data itself is to reveal the underlying structure and meaning. The output of phenomenographical analysis is essentially a classification system including labeled conceptions with a description of its meaning. This classification system may be hierarchical, a web, or disconnected experiences. Some factors in the classification have more significant in certain situations. These pre-eminent factors are called figural elements or the theme while the other elements are called ground elements or the margin. These differences in awareness may be a function of sub-group variation, in that these differences arise because of some differences in the training, education or experiences of these particular groups. These differences may in fact define the sub-groups rather than necessarily being a product of a priori defined groups.

We next show how the method was applied in the research context.

Application of Phenomenography in the Research Context

The research partner in this study was a large public service agency with about 2,000 personnel. A series of semi-structured interviews were conducted with key personnel within the organisation. These personnel include the Deputy CEO (Deputy Director General), the executive directors of each of the divisions (8 people), the IT director and his four key staff, and each of the managers of key IT projects within the organisation. The interviews were

taped and lasted between 45 minutes and 1.5 hours. Respondents were assured of confidentiality. Letters of introduction and the interview questions were distributed several weeks prior to the conduct of the interviews. The IT director and the Deputy Director General sanctioned the project.

After the interview was completed, the interviewees were given a leadership style survey (the Multi-factor Leadership Questionnaire 5X Bass and Avolio 1996) to complete in their own time. This survey instrument was issued after the interview in order not to influence the qualitative data collected.²

This paper concentrates on the analysis stemming from the qualitative questions on leadership. This series of questions were used in order to triangulate findings. The leadership questions were:

Describe a time when you demonstrated that you were an effective leader.

Describe your complete picture of a competent leader.

In addition to these two questions designed to identify variations in perceptions of effectiveness and competence, two other questions were posed regarding the perceptions of success. These questions were:

I know someone is a successful leader when ...

My organisation perceives that a person is a successful leader when ...

The order of the questions was important. The personal question on leadership effectiveness was asked in order to identify what the individual believed were their most important attributes of leadership. The question on leadership competence allowed this range of concepts to be extended. In between the questions on effectiveness and competence were two questions relating to the relationships between the IT and business communities and issues in leading IT professionals. We then switched to the questions on leadership success.

We posed the questions in that particular order to gather fresh insight. We believed that the first question on recognition of leadership success would highlight those few things that the respondent thought most significant. The second question on organisational perceptions of success was designed to identify any cultural elements of reward for, or barriers against, leadership practice.

In essence, we were asking questions on two levels: a personal experience of leadership, and an organisational operant model of leadership. This relationship is shown in Figure 1 below. The summation of all data would lead to the operant model within the organisation. Models could also be developed for particular groups, such as business versus IT, and senior executives versus middle managers. In addition, we could analyse the data to reveal tensions in organisational practices and implicit leadership beliefs. For the purposes of this study, we

² In addition to the MLQ, participants were given a survey instrument designed to obtain their perception of the value of various Information Systems to their business unit. This latter instrument was inadequately completed because of the lack of an audit of business application systems.

focused on determining the operant model within the organisation, and identifying any variations in that model according to employment group and seniority.

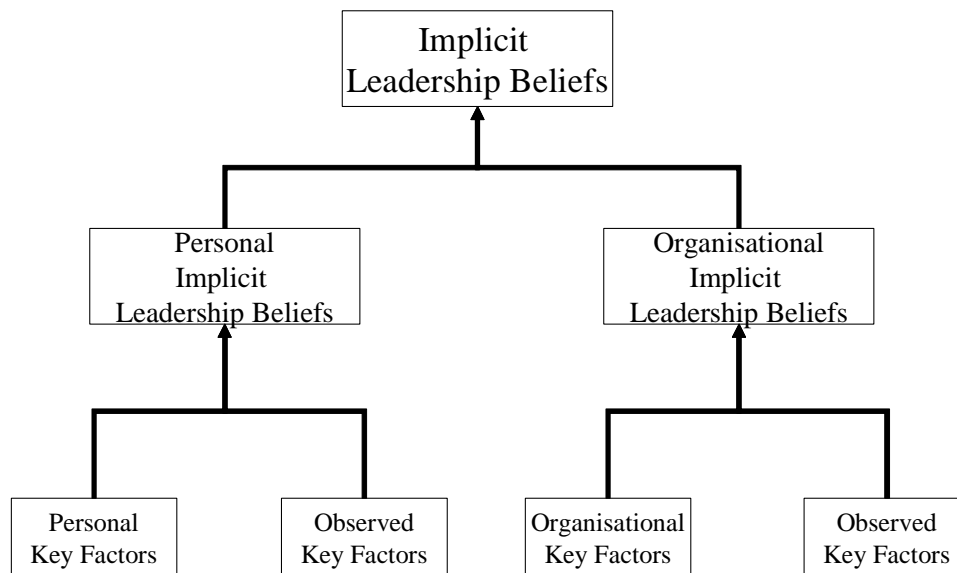


Figure 1: Implicit Leadership Beliefs Sets

For IT professional managers, an additional question on their career was posed, as for many, the transition from technologist to manager had been motivated by the need to advance and earn a higher salary. The only way to obtain such advancement in the government in IT is to move to the management track. This is often done without any training or managerial experience. Analysis of this issue is not discussed in this paper.³

This range of responses with 24 interviewees led to 245 separate files of textual data to interpret, with seven sub-studies. These sub-studies are labeled as effectiveness, competence, own perceptions of success, organisational perceptions of success, business-IT relationships, innovation, and leading IT professionals.

Some leaders were uncomfortable in answering the first question. One declined to answer it entirely. Some leaders had prepared answers for the questions. Most had prepared responses mentally. Some had only glanced at the interview protocol before the meeting. There were no problems raised during the interaction with the interviewer, with the questions or the consequential probing. Only one interviewer was used, to ensure comparability of results. No more than three interviews were conducted in a day, due to the strain, for the interviewer, of maintaining concentration during the interviews. Most interviewees were pleased to participate and were willing to share concerns and anecdotes. Only one was hostile.

³ The interviewees were also asked questions on innovation - its sources, leadership strategies for encouraging innovation, and any organisational barriers to innovation. The analysis on innovation is not addressed in this paper.

FINDINGS

Identifiable groups in this study can be partitioned into two sets: business and information technology. This led to approximately the same numbers in each group with 11 business managers and 13 IT managers. This partitioning was conducted based on the current posting of the individual, but led to some problems. For example, one senior IT person spent most of his professional life as a business executive. Another senior business manager spent most of his professional life as an IT executive. Another senior businessperson had spent substantial time functioning as a senior IT manager; this person's experience was acknowledged to be of the standard of an IT professional by his election to the Australian Computer Society. These individual histories are known, and so their 'bias' towards one orientation or another can be distinguished. What ultimately determined their 'set membership' was the degree of alignment with the found meaning and reference structures. For the first analytical pass through the data sets, we decided to leave these particular interviewees in their employment categories because each of these people had spent the last two years at least in that capacity.

It became clear that another group was also emerging - a sub-branch manager for the IT unit. Indeed, there was only one executive in the IT unit by definition, but each of the IT branch heads shared a common set of experiences and were acting as executives in their own domains and in conduct of business with the business partners.

We coded the IT branch managers and IT executive directors as Senior IT executives (SITE), and their sub-branch managers as Senior IT Managers (SITM). A final group within the IT units was the external project management consultant. From their experience set and employment, these people were sufficiently different to label them as a separate group - the Senior IT consultant (SITC). In total, there were 24 interviewees consisting of seven Senior Business Executives (SBE), four Senior Business Managers (SBM), four Senior IT Executives, seven Senior IT Managers (SITM) and two Senior IT Consultants (SITC).

Interpretation of the conceptions of leadership success

We commenced with analysing the variations in conceptions of leadership success. On review of the total set of transcripts, it became clear that this question provided a means of identifying those few things that the interviewees believed to be most important.

We divided the transcripts into their subsets (SBE, SBM, SITE, SITM, SITC). For each response, we counted the number of concepts embedded in the text, and counted the number of sentences used to convey the intent. Most respondents described their perception of a successful leader as a multi-dimensional set and expressed between two and three concepts. They used anywhere between 1 and 21 sentences to convey this message. Most of the content in lengthy statements was used to qualify the circumstances under which the behaviour was valid.

We used a key word to capture the intent of the expressed concepts, and found means of relating these concepts to a higher order concept. Rather than use frequency counts, or an organising framework, we sought to identify what were the key embedded concepts.

All the text could be organised into six concepts (called categories of description). Not all concepts were, in fact, referred to by each group, and thus we see immediate variation

according to the role that they play within the organisation. There are two dimensions that discriminate in these perceptions: whether the individual is an IT or businessperson, and whether the individual is an executive or middle manager. The focal point in each category also had slight variations. The six categories of description are shown in Table 1.

Table 1: Concepts (or Categories of Description)

Concept	Description
Vision	Expressions dealing with the establishment of a future and developing plans to achieve that future; includes terms such as vision, goal, objective, and strategic direction.
Task Outcomes	Expressions describing the completion of a task, project, improved process.
Staff Outcomes	Expressions describing the support of staff, and care of staff
Change Agent	Issues dealing with effective change management, being a change agent, effecting long term sustainable change.
Leader Attributes	Expressions of qualities attributed to the leader as a result of their leadership activity. These terms include trust, respect, credibility and confidence.
Skill Base	Expressions relating to the practices of leaders based on skills such as negotiation, delegation, communication, planning and strategy formulation.

The development of these categories of description have been reported in Stewart (2000), and space prevents a detailed discussion of the argument. The final outcome space is shown in Figure 2.

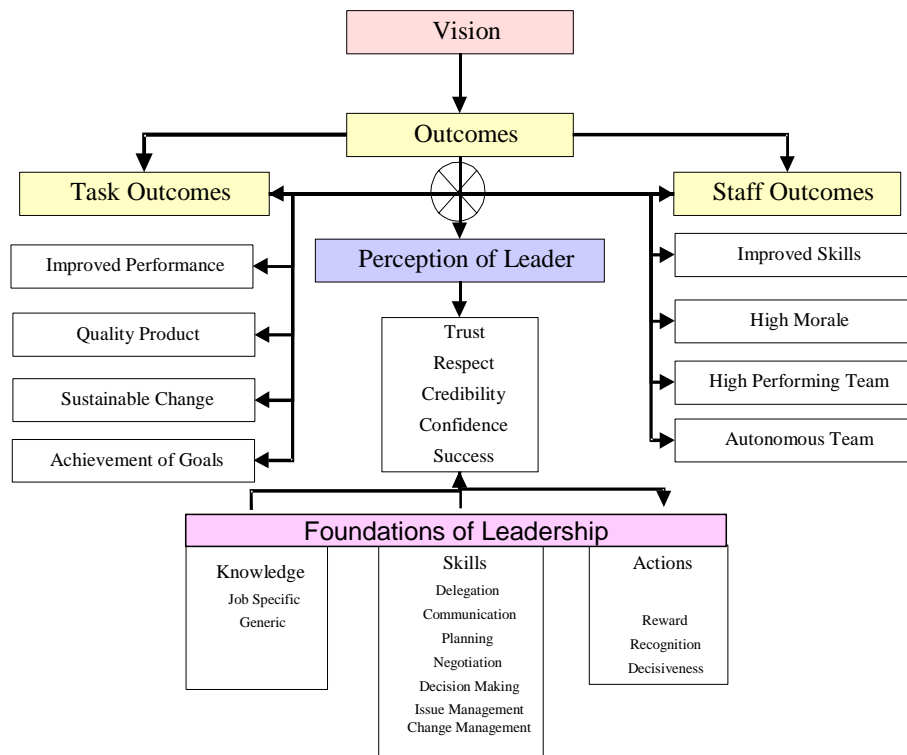


Figure 2 Outcome Space: Operant Model of Leadership

This outcome space is a graphical representation of the elements that figure in conceptualising leadership success. A leader is considered successful if they are able to articulate a vision (or goal set) that the followers will share and work enthusiastically to achieve. This leads to task outcomes in which there is a combination of improved performance, the development of a quality product, or the implementation of sustainable change. These outcomes are not independent of the impact on the workers. There must be team outcomes as well, such as improved skills, high morale and the development of either an autonomous team or a high performing team. These leadership practices are dependent upon the leader having a firm base in terms of their knowledge, skills and actions.

The evaluation of success is then attributed to this constellation of vision, attainment of task outcomes, and a positive effect on personnel. The ability of the leader to have these activities recognised and appreciated by senior management, their peers and subordinates then conveys the attributes of leadership to that individual in terms of trust, respect, credibility and the confidence of all parties to be successful.

Not all aspects of this model are reported by every participant in the study. This model represents the conceptions associated with leadership in the 'holistic and integrated way' suggested by Sandberg as one outcome of phenomenographical research. Nor is this model argued to be a complete representation of conceptions of leadership. It is not a theoretical construction based on tested causal models, nor is it argued to be a causal model. What is captured is the sum of the conceptions held by the participants in this interview process. From this base, we may infer a shared model of implicit leadership beliefs, although an examination of sub-group variation is required in order to determine if the model is truly shared. Some

sub-groups may emphasise certain leadership behaviours and attributes over others. The next section seeks to determine any sub-group variation between the business and IT management communities. This is the other output associated with phenomenographical research - variations in people's experiences and conceptions.

We next discuss the sub-group variations between senior business and senior IT executives.

Sub Group Variations

Closer inspection of the key categories revealed that some were figural elements in the perception of the respondent. These differences are summarized in Table 2.

Table 2: Summary of Sub-group Variation

Group	Foreground Elements (Figural)	Background Elements (Marginal)
Senior Business Executives	Vision Achieve Outcomes Change Agent Effective Executive Skills	Staff Support Effective Teams
Senior IT Executives	Achieve Outcomes Effective Change Management Care of Staff	Vision Goals Objectives

For example, the concept of vision was pre-eminent in the responses of the senior business executives and occurred in the utterances of the senior IT executive. The word vision was largely absent from the data collected from senior business managers and senior IT managers. They replace this concept with a derivative of a vision, namely a set of goals and objectives, or moving forward — getting somewhere.

Another key variation was the attention paid to the development of the team. This is absent from the responses of the senior business executives, but present in all other data sets.

All data sets refer to the attainment of task and personnel outcomes, and therefore is identified as a hallmark of leadership success.

Finally, the IT managers admired autonomous teams that could work independently of the leader, achieve their tasks, and become creative. These words of autonomous creative and independent teams are, however, absent from the responses of the business community.

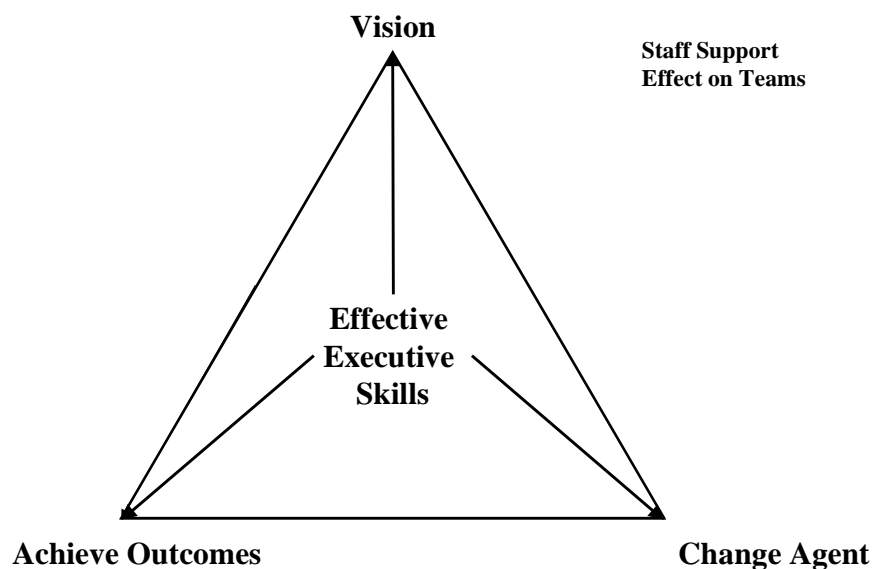
This analysis presents the following awareness spaces for each sub-group, where certain elements have retreated to the background or margin.

In representing these elements, we have shown the foreground elements as the labels associated with the vertices of a triangle, as at least three concepts of success seem to be collectively held in that sub-group. For senior business executives, these concepts are vision, achievement of outcomes, and being a change agent. The most important concept is shown at the top of the triangle, with concepts of secondary importance at the base. Background elements are shown in the background as a label only indicating an assumed state of existence. Outcomes from these leadership practices are shown at the centroid of the triangle. These outcomes become the focal point of leadership activity and the manner in which the individual ultimately measures leadership success. Note that the senior business executives assume that the use of the executive skill set will enable the effects at the vertices of the triangle. This is represented by the outward directed arrows

Senior Business Executives' Perception of Leadership Success

We first examined the concepts of leader success for the business community. The results are graphically represented in Figure 3.

Figure 3: Figure-Ground Elements for Senior Business Executives Perception of Leadership Success



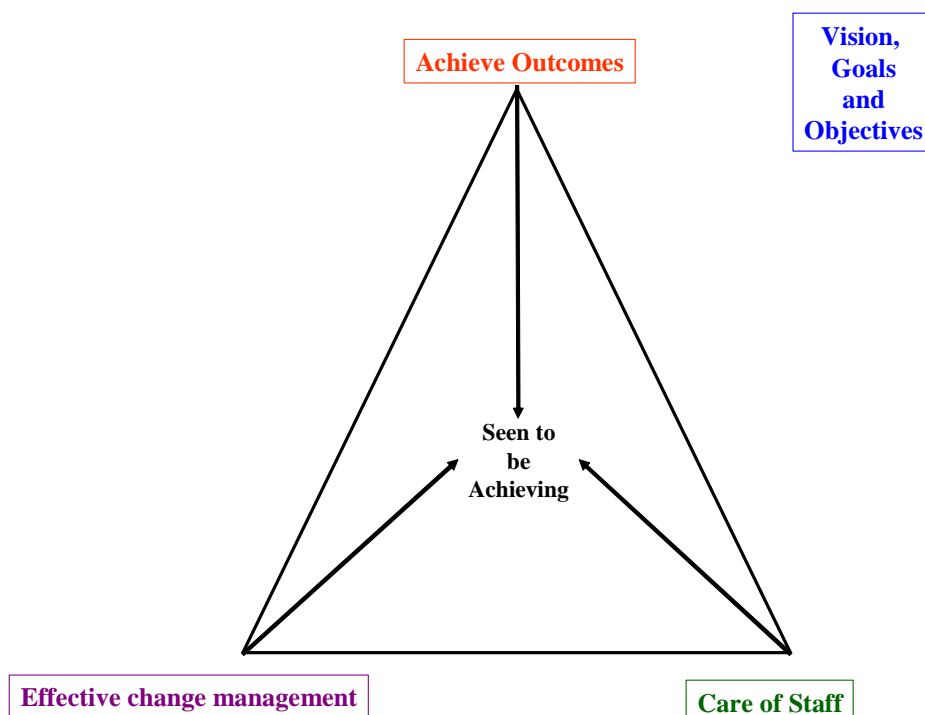
For the senior business executive, all is driven by the vision. This vision generally promotes change. This change should be sustainable in the long term, so the correct changes must be made, and effective change management practices adopted. Change must be achieved as the primary outcome, but the business unit has other results that must be attained as well. Change requires executive skills of planning, strategy formulation, and communication. The executive skill set also ensures that the leader's objectives are on the agenda of senior management. The

leader achieves results, built upon knowledge and effective communication. This results in follower commitment, as evidenced by enthusiasm in pursuing the vision. In the background are issues of effective teamwork, staff morale and staff support for the changes, in the manner meant by the other groups. Other groups measure staff support in terms of skills transference, commitment, and the ability to work autonomously. The senior business executive sees staff support as holding the shared vision.

Senior IT Executives Perception of Leadership Success

The results for the senior IT executive are shown in Figure 4.

Figure 4: Figure Ground Elements for Senior IT Executives



The senior IT executive in this organization is also driven by the need to achieve outcomes. They do so, in such a way as to minimise trauma on the staff, yet are supporting the right organisational objectives. The senior IT executive appears to have an internally generated set of goals, rather than being driven by a vision. The vision is in the background for these executives. They see that much of what has impacted on the agency has led to significant change, and so to accommodate that level of change requires effective change management. Their role is to ensure that there is a minimal amount of trauma on the IT staff. They still have a range of products to deliver, or services to provide, and the attainment of these goals on time, to budget and to the standards demanded by the customer pervades their working environment. Thus, the nature of the outcomes is slightly different to that of the business group. It is very important to this group to be seen to be achieving in delivering their products, services and achieving their goals. These elements are represented in Figure 4.

Limitations of the work

The nature of qualitative research using a phenomenographical approach limits the number of interviewees. Sample size is in accordance with the methodology used, but is small when compared to other qualitative studies. In addition, this research was grounded in one organisation, in order to determine if:

- a. the methodology to understand implicit leaderships beliefs was successful, and
- b. to reveal possible barriers to current practices.

The small sample size (though acceptable within the research method), and grounding in a single organization, limit the findings of the research, and point to future research. This includes replicating the study in other large public and private organizations in order to develop a more comprehensive model of variations in business and IT expectations of leadership. In addition, further research is required to determine what, if any, effect is present of social stereotyping in terms of opportunities presented to IT leadership in an organizational setting and variation of perception of leadership success.

CONCLUSION

This study commenced with a goal of determining only those elements operating within the agency at the time of the study. It did not seek to develop a new, all embracing model of leadership, nor to determine the factors of leadership in this new model. It rather sought to test a methodology that may be used to determine implicit leadership beliefs.

The methodology is based on phenomenography, which seeks to identify variation in conceptions and understandings. The applied methodology did determine variations, that may partially explain both the existing relationships between the two management communities (IT and business), as well as expectations.

We were interested in characterising the concepts of leadership success as held by senior management. In particular, we sought to determine if any variations in these notions existed between the business and information technology senior management communities. We believed that answers to these questions would highlight those concepts that figured most prominently in their evaluations of a leader. It would signal the means by which the business management team was evaluating the IT management team and, conversely, how the IT management team was evaluating the business management team. Significant differences in this underlying belief state of successful leadership could assist in explaining the assessments of leadership as an enabler or as an inhibitor to the alignment of business and IT activities. We sought to find a methodology for evaluating implicit leadership beliefs.

There were commonalties held by the business and IT groups. These commonalties included the orientation towards achievement of outcomes, staff support and having effective skills.

There were also differences. The business executive is driven by vision creation and change. They expect a high standard of communication skills. The IT executives were more driven by the need to achieve their stated goal set, rather than articulate a vision. They recognized the need for change, but thought that change needed to be managed in such a way as to have limited impact on staff. In either arena, the need for the team to achieve their task

unsupervised is essential. This latter conceptualisation of the drive for autonomy is also consistent with the findings of other studies, for example, Dengate, Cougar and Weber (1990) found IT professionals were motivated more by a need for autonomy, effective feedback, task variety, task identity and task significance, than other professional groups.

The qualitative approach of determining variations in perception did lead to identification of difference. In addition, this approach was well received by the senior management team, who found the questions useful in opening up dialogue between the IT unit and the business community. This was an important outcome for this action research project in which we sought to improve IT leadership practices. It led to reported improvements in the relationships between the business and IT management communities, and gained continued support for the project to move into the full benchmarking of actual leadership practices.

In an information technology enabled world, we are seeing more evidence of virtual teams - teams that are working in different time and space zones. These teams are also multi-skilled, with members coming from different business units. Thus, we have the potential for many sources of variations: organisational culture, ethnic culture, experience and familiarity with technology. Leadership is a critical success factor for all teams, and its transmission in the internetworked world is a current topic of research. Variations in the perception of leadership between professional communities, and between cultures, may be exacerbated when intermediated through email and other forms of communication. Finally, the methodology shown here may be of particular use in studying the effects of leadership in virtual teams, in cross-cultural teams and in cross-cultural system implementations.

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