The Measurement of Innovation in Large Service Organisations

Marcus Powe

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RMIT University

Graduate School of Business

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Australia
Abstract

The measurement of innovation in organisations that produce tangible products is well represented in the literature and many researchers have made significant contributions that should assist organisations to continue to create wealth. The scale and breath of this research has identified that many terms used to explain innovation have become part of organisational vocabulary. Terms such as creativity, innovative or enterprising are used when leaders and managers describe what they consider are either behaviours or mindsets that are required to grasp opportunities. These terms are often highly emotive. They are often interchanged, misunderstood and confused when dealing with tangible products.

A challenge emerges from the literature to develop a set of working terms that will assist leaders and managers to work effectively and efficiently when communicating with staff, customers and suppliers. The literature highlights many measures that may assist organisations gauge their performance internally and externally. The number of ways used to measure creativity, innovation and enterprising behaviours are considerable, with many researchers holding the view that, there is no one definitive measure. A set of measures is preferable due to the complexity and diversity of large organisations and their related needs. The review of the literature has identified the popularity of measures that provide benchmarks and milestones for tangible products.

The development of a set of measures for large service organisations (organisations that develop and deliver intangibles) appears to be problematic. In some cases, these organisations have been collecting ideas from staff to either reduce costs or add value; these ideas have been placed on the organisations intranet for all to see. Organisational acceptance and use of the intranet has seen the rapid capture and communication of creative ideas and enterprising opportunities that may assist organisations to either pursue new revenue streams, enhance productivity and cost reduction.

How does the service organisation know it has achieved its goals when measuring creativity, innovation or enterprising behaviours? A set of research questions was developed for the use in two large services organisations in Australia between 2001 and 2006 in order to create such
a set of measures. The results have produced outcomes that are repeatable, measurable and measurable in service organisations. These outcomes have highlighted that, by using a consistent and straightforward set of measures, organisations can adjust their development programs to encourage staff to be more creative, innovative and enterprising. The organisations participating in this research developed their innovation programs using three variables: were the programs (1) achievable, (2) measurable and (3) repeatable? The outcomes of this research indicate that the measurement of innovation in large service organisations can satisfy these three organisational requirements.
Acknowledgements

Without the vision of the leadership of EduCo and ServCo and the unlimited access provided, this research would not have been possible.

The direction and guidance provided by my supervisors, Professors Atchison and Sheldrake have provided new perspectives and skills, thank you.

To Barbara, thank you for your support.
Declaration

This is to certify that

(1) The thesis comprises only of my original work towards the PhD,

(2) Due acknowledgement has been made in the text to all other material used.

__________________________________________

Marcus Powe

November 2007
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Chapter One

Introduction

The measurement of innovation in large service organisations appears to present many challenges for managers and leaders who are used to dealing with tangible products. Organisations in Australia have embraced a variety of programs, used many types of management tools and invested considerably in staff training to enhance productivity and create competitive advantage. The improvements or gains from this investment are well understood by management. In addition to growth through productivity, these organisations have also realised that efficiencies can be achieved by either cutting or containing costs. Another choice for some organisations to continue their growth has been to either acquire or merge with similar organisations to gain economies of scale. These activities are now considered essential to aid management decision making and could almost be called “commonplace” therefore becoming part of everyday conversation.

An additional challenge for organisations is the consideration of what else can be undertaken to continue growth after cost reductions and productivity enhancements have been achieved and there are no other organisations to acquire or merge with.

It can be argued that the next choice for such an organisation is growth through creativity, innovation and enterprising behaviour. The literature cites many examples of measuring creativity and innovation for organisations that produce tangible products, however, for service organisations less research is to be found examining a set of measures that can be used confidently, over a period of time and in different types of organisations.

Two large service organisations named ServCo and EduCo located in Melbourne, Australia have both enjoyed growth, profitability and embraced many tools, processes and techniques to enhance their operational efficiency and create additional funds to invest in growth. ServCo and EduCo are large (over 1000 employees); provide a range of services, consulting and specific services such as professional advice and training, nationally and internationally. ServCo (a professional services organisation) and EduCo (an educational institution) approached the researcher to assist with the design, execution and analysis of their Innovation Programs. This research program has been undertaken over a six-year period, commencing in 2001 and concluding in 2006.
This thesis consists of five chapters. Chapter one introduces the drivers that have created this research opportunity. The literature review in chapter two explores the background of the key terms used in this thesis and what has been internationally researched in the areas of service innovation. Chapter three examines the history of action research methodology and the rationale behind the selection of the paradigm chosen. In chapter four the analysis of six years of data is examined and discussed. Chapter five includes the conclusions and implications of this thesis and suggests possible areas of future research.

Overview ServCo and EduCo

(A) The Drivers for Change - the need for Creativity, Innovation and Enterprising Behaviours

ServCo and EduCo consider that by using creative thinking and encouraging innovative behaviours in their staff, they will achieve sustainable growth and remain competitive. They have also actively pursued productivity enhancements, restructures and maintain continuous improvement to maintain competitive advantage. Both organisations have come to a point in their organisational growth where they now see creativity and innovation as an additional way to remain ahead of the competition. ServCo and EduCo are active in national and international markets and acutely aware of many environmental and market place factors over which they have no influence or control. Both organisations use a model that assists them to move from a reactive position to one of being proactive, allowing them to anticipate and take advantage of changes. This awareness of the environment has contributed to both organisations’ growth.

The environmental context discussed by Hitt et.al.(2003) highlights four environmental forces - political, economic, societal and technological which constantly change and so have the ability to create and destroy industries and organisations. Organisations have no influence or impact on any of these environmental forces and therefore must either build the capacity to effectively avoid or take advantage of the related force. If the organisations can do this, they can then direct human and financial resources to gain market share advantage rather than try to either resist or avoid these environmental forces.

Political forces impact on the organisations’ market place, meaning that the laws of local, state or federal governments have led to the organisations either restructuring, entering or withdrawing from one segment of a profitable national market to others. This movement from segments and
restructuring was one of the key drivers for creating the Innovation Programs (see appendix no.6) to foster innovation and encourage creativity for the members of the host organisations. The leaders of the two organisations took the view that the next generation of professionals working their way to the top, should be equipped with creativity, innovation and enterprising skills in order to continue to drive the organisations’ profitability and market share in a constantly changing environment. The current leaders believe that they are too old to learn these skills and that the organisations’ younger members have a greater capability to embrace change and to recognise new opportunities.

**Economic forces** that have been impacting on the host organisations are positive in the sense that, over the period of this research, economic growth in Australia has been consistent, based on one of the highest gross domestic product growth in the world. Corporate profitability has been high, unemployment levels low and consumer sentiment positive for continued economic growth in Australia (DFAT 2007). The consequence of this economic driving force has been price pressure on traditional products and services offered by the host organisations. The tendency of the host organisations’ leaders has been to reduce the price of their services to remain competitive, however, this is not perceived as a sustainable solution for either organisation. The Innovation Programs are seen by the organisational leaders as one way to recognise new opportunities for either new revenue streams and/or new ways to further reduce costs and enhance operating efficiencies.

**Social or societal forces** have been influential as ServCo’s and EduCo’s industries have been under national and international pressure to be seen as prudent, impartial, ethical and trustworthy. Many organisations have been exposed operating either illegally, unethically or not working in the interests of their stakeholders. The consequences of these behaviours have resulted in corporate failure. The leaders of ServCo and EduCo are hoping that all staff shall not only abide by the professional ethics and code of conduct (mandatory) but also through creativity, innovation and enterprising behaviour. These new skills would demonstrate to existing and potential clients that they can recognise opportunities for them and so grow their organisations. This change may be considered unusual from their clients’ perspective, as both organisations have been traditionally been retained professionally to provide specific advice to the client regarding cost reduction, compliance or education only.

**Technological forces** impacting upon the host organisations and their markets can be grouped into two major areas: the first being the speed of communication and the second being access to information. These organisations and their competitors have embraced world's best communication
technologies and have access to comprehensive proprietary databases, for example, one of the host organisations has access to 600,000 databases and can access any of them in real time with its clients. The challenge, identified by the organisations’ leaders regarding technology is, can we really add value to our clients businesses? The Innovation Programs aim to enable participants to use technology to create opportunities for growth for their own organisation and for their clients.

(B) Market Place Context

The dynamics in Australia’s market place over the last two years can be discussed in terms of two models developed by Michael Porter (1985), the “industry value chain” and “the five forces” model. The industry value chain determines the position and power of an organisation in a particular market and the five forces model determines the market attractiveness for an organisation.

Industry Value Chain

In ServCo’s industry value chain it is the largest organisation (by turnover, profits and staff numbers). ServCo’s competitors are by no means small and, on an international stage, are household names too. Over the last 10 years there has been an amalgamation of professional service organisations resulting today in only four (from eight) organisations internationally. This has created the challenge of concentrated supplier power that many clients of these organisations are now questioning. In particular, clients are having great difficulty appreciating or understanding any differences between these four large organisations and the services they offer or the value that they claim they can add to their businesses. In the educational market place, EduCo is facing similar challenges and many competing educational institutions have been closed, amalgamated or merged. Consumers of educational services are having difficulty in seeing clear differences in the educational offerings. In applying Porter’s (1985) value chain model, it is clear that a number of linkages in the industrial value chain have been removed thus increasing margins and concentrating power.

Porter’s Five Forces Model

The opportunities faced by ServCo and EduCo are nearly identical when applying Porter’s (1985) five forces model. The five forces model assists organisations to determine the market attractiveness (or otherwise) of a selected market segment or niche. Each force was analysed by both
organisations and a relative value was assigned. The values are either a high or low level of force. The forces are the power of suppliers (low), the intensity of competition (high), the number of substitutes (low), the power of buyers (low) and the barriers to entry (high). The consequence of this analysis means that the opportunity is high for service innovation organisations to be successful. Of the five forces: power of buyers, suppliers, substitutes, barriers to entry and intensity of competition, the most powerful for ServCo and EduCo is intensity of competition, due to the number of competitors reducing and the size of each competitor increasing. Both organisations intend to remain in their respective industries and in Australia and consider the market will continue to be attractive (profitable). Given this, the leadership of both organisations have clearly articulated in internal documents that they will continue to invest in the Innovation Programs that will assist the design, development and implementation of new ways of creating sustainable revenue streams and profitability for both organisations.

The leaders of both host organisations believed that their Innovation Programs would build a sustainable difference for new and existing services and products they can offer to clients and may create a real and lasting difference in the national market place. It should be noted that ServCo’s prototype Innovation Program (designed, developed and tested in Australia), had already been exported to an affiliated organisation overseas. The organisation’s leaders initially considered this activity to be a novelty. The leadership was now waiting to see if the exported Innovation Program would create synergies and thus commercial opportunities on an international scale.

The market place of the organisations and their competitors is essentially driven by competition: by price, by product and by segment. These three competitive elements are in the mature stage of their respective lifecycles. This means that organisations display the characteristics of discounting (price), product extension (product) and a whole of market approach (segment). It appears that the majority of large service organisations have traditionally focussed on cost reduction (price), repackaging old services with new marketing campaigns (product) and use technology to reach other parts of the market with old product (segment). They have shown little or no signs of creativity or innovation. On this basis, the organisation that embraces a new way of thinking (creativity, innovation and enterprise) should be able to create a sustainable competitive advantage. These environmental and market place imperatives clearly create a context where action learning can be tested and the results of these tests, assist the host organisations to create a workforce that embraces change and can create solutions that are appropriate for the concept of environmental and market place driving forces.
(C) Organisational Context

Both organisations were searching for new ways to grow and enhance the potential of their workforces to be more creative and enterprising. The leadership of ServCo and EduCo believed an Innovation Program could create further commercial and reputational advantages for them. ServCo states in its 2000 Annual Report that, “Innovation is a core value of our organisation and we need to live and breathe our core values, aligning them to current “behaviour”. The analysis of this research program data may reveal if ServCo can achieve its vision. EduCo’s leadership group identified the need to introduce creative and innovative programs to assist its organisation’s restructure, assist with the identification of staff who may be able to lead the organisation in the future and create a sustainable advantage in the Australian and international market place.

Both host organisations were acutely aware of their respective market places and the environmental forces that impact on their organisations. They believed that without an appreciation or understanding of the external forces their Innovation Programs would have little or no relevance for the participants. The diagnosis and planning phase of the first of each Innovation Program highlighted opportunities and challenges and as a part of the action research cycle, which were incorporated into the design of the first Innovation Program.

There are many models available which can be used to examine the structure, design, culture, dynamics, competitive posture, learning curve position, strategic intent, financial position, strengths, weaknesses, stakeholder position, community and corporate citizenship as they relate to organisations in the market place. The selected model that describes in simple terms how the organisation identifies opportunities for improvement, the strengths that must be protected and the systems that connect the operating elements of the organisation. Porter’s (1985) internal organisational value chain has five primary activities and four secondary activities. Opportunities are often identified to fine-tune the organisation’s operations. The host organisations’ five primary activities are:

1. Inward information - Information and people come into the organisation. The attraction, training and retention of people are included here. The management of networks and suppliers of product, service and market research is also found in this primary activity. New staff at ServCo come from a specialised, university based degree. The leadership of ServCo is hoping that by promoting the Innovation Programs, they can build a reputation of creativity, innovation
and enterprise that will attract new staff, different from the traditional group. The leadership believe that this plan of action will assist ServCo to differentiate itself in its highly competitive market place. EduCo’s plan is similar to ServCo and it too wants to attract staff with different skills, attitudes and behaviours that can provide superior levels of service and services development.

2. Operations - The delivery of services in ServCo and EduCo are based on the historical development of services that have seen little or no change. Both organisations embrace continuous improvement, employ enhanced internal technologies and insist on on-going professional development, just as their competitors do. The leaders of both host organisations are hoping that solutions are not only provided but also opportunities created for either growing their clients’ organisations (in the case of ServCo) or (in the case of EduCo) providing a range of skills that lead industry and organisational requirements. This proactive approach should generate a greater number of choices about the growth and direction of each organisation.

3. Outward information - In the case of ServCo, this is where solutions for clients are provided. Either the client visits the organisation, is given a document and a staff member recites the contents of the document or alternatively, a senior representative of the organisation will visit the client with a document and talk to it. Other outward information is in the form of advertising, which is normally printed materials. The organisational leaders are hoping that the results of the Innovation Program will see new ways to communicate and work with clients as opposed to working for clients. In EduCo’s case, the leadership is looking to build on and strengthen its brand recognition through different media forms. The leadership is also seeking innovative proposals to change the way it communicates with existing and potential clients.

4. Marketing and sales - The traditional marketing and sales approach has been built around relationships of the leadership in both organisations. It is widely believed by the leadership, that marketing and sales is something that other people do. It is believed that clients and consumers will come to our organisation because they have no other choice. Both organisations have traditionally considered sales and marketing as function that our competitors have then so should we. It is also considered that all that is necessary for marketing and sales is the production of a brochure and having the ability to conduct a public relations event. The leadership of both organisations believes that as selling ideas and opportunities form a key part
of the Innovation Programs, sales and marketing will become a normal part of the organisational culture.

5. Service and warranties - Both organisations operate under a professional code of ethics and standards and therefore must adhere to a minimum level of quality and professional service, or be penalised legally, politically (in the case of EduCo) and professionally. In one aspect, the notion of providing excellence in customer service is often overlooked by the host organisations in their respective industry segments. Customer service is often confused by the organisations with being well mannered, where the customer opinion is based on services delivered on time, their expectations being managed and that an effort is made to create a professional relationship.

The secondary activities of the host organisations include organisational structure, infrastructure, technology and procurement:

1. The organisational structure in ServCo is based on a hierarchy and power. The organisational leaders embrace and have refined the traditional charging system based on the salary multiple, that is, where each member of staff has to generate and bill income as a multiple of his/her salary. The system has worked well for organisations for many years. The organisational leaders tend to restructure amongst the leaders and allocate responsibilities depending on market place opportunities, skills and seniority. There appears to be little structural change in what can be described as the “engine room” of the organisation, that is where salary multiples are generated, driven and often demanded by middle management. The Innovation Program may produce many process innovations that enhance work practices, which, it is anticipated, will have a rapid impact on the bottom line of the host organisation.

In EduCo, there has been considerable restructuring to streamline reporting relationships, remove service areas that are no longer required by the market place and reduce or remove duplication (in some cases triplication) or processes and activities, all of which have been a considerable financial burden on the organisation. The Innovation Program aims to highlight many areas of opportunity to streamline or enhance processes and activities.

2. The infrastructure of the organisations is constantly being upgraded and improved to meet or exceed customer and client expectations. In many areas of both host organisations, the facilities
are of the highest standard in terms of quality, finish and materials. Accordingly, the commonly held belief within the organisations is that the “quality” environment created should assist productivity and the provision of service excellence.

3. The **procurement systems and technology** are at the leading edge at ServCo in the services sector of Australia. The opportunity for EduCo, through the Innovation Program, is to identify additional opportunities for enhancement of technology and procurement systems to further differentiate the organisation and, in this way, to ultimately contribute to superior customer service levels being achieved.

**(D) The Individual Context**

The target group for the ServCo Innovation Program was new staff. These men and women are from the top 5% of graduates and are highly motivated to succeed in their chosen professions. They are dedicated, conscientious and have a work ethic that may be considered extreme by those outside their professions. The majority of the new staff work very hard so they could be selected to be trained and sponsored through their final professional qualification and the certification process: it is at this point that between 25 and 32% leave the organisation. The new staff are in such demand in both government and private sectors where they can command salaries and conditions considerably higher than what they were paid at ServCo. There are two prevailing views in terms of this professional development process: the organisational leader’s views and the new staff view. The new staff think that all there is to their profession is hard work and if you work hard enough for long enough, you may end up being an organisational leader, organisational leaders think there are more new staff than the number of positions available so they are not concerned with the 25% or more attrition rate.

On the other hand, over the period of the research program, ServCo’s leaders and new staff have seen changes in the attitudes described above. The director of human resources at ServCo has been monitoring the attrition rates during the research period and has measured a resulting reduction of between 7 and 15%. The new staff is now saying that the organisation seems to have changed and that there appears to be the possibility of greater responsibility and variety to make things happen in the organisation. The leaders of the host organisation are now saying that the high cost of training new staff provides impetus to expand the scope and nature of new staff roles and in this way encourage them to stay and to identify opportunities for the organisation’s growth.
EduCo’s leaders and staff face a different challenge. The challenge for EduCo was that many members of staff did not want to change, improve, learn or leave to make way, for new ideas and processes. In many cases (as reported by the director of human resources), staff resisted change to the extent of using history (precedent) that they will not need to change as the leadership will probably change their mind when the leadership structure changes. During the research program, many restructures have occurred resulting in all staff being asked directly about their intentions to engage in change, professional development and a higher work rate; many took the redundancy package offered as an alternative. This now means that the remaining staff (the majority), are motivated and focused on the opportunities and possibilities of new ideas and change. Consequently, it can be demonstrated that the Innovation Programs have acted as a catalyst for change for both ServCo and EduCo.

The Research Problem

As part of the development of corporate strategy ServCo and EduCo use a continually increasing number of inputs from the environment, market place and individual context in order to maintain advantage. Both organisations were concerned that the increasing complexity in measuring systems were resulting in processes and procedures that seemed more important than the actual innovative and creative activities they were seeking. ServCo and EduCo were seeking a straightforward approach to gaining a deeper understanding of creativity, innovation and enterprising behaviours that would enable both organisations to continue to grow.

ServCo and EduCo decided to test a set of measures over a three-year period, in order to determine the robustness and repeatability of those measures. The demands of ServCo and EduCo were that the measures must be straightforward to facilitate gathering and analysing data and to ensure that all in the organisation easily understood the results of the analysis. The data in this research program will be used to identify the measures required for leaders and managers of large service organisations to begin to build innovative and enterprising behaviours in their organisations. These behaviours should result in cost savings and or revenue generation.

The approach to this research program is based on Lewin’s (1942) action research framework. It involves a four step process of diagnose, plan, act and reflect. ServCo and EduCo have the opportunity to test the action research framework over a three-year period. This should ensure
sufficient testing of the proposed measures to assist managers and leaders fine-tune their respective Innovation Programs to achieve the outcomes for organisation growth and behavioural change.

The two research questions agreed on by the Innovation Program management teams of both organisations were:

(1) How to develop a set of measures to assist the decision making of leaders and managers of large service organisations to manage the creative and enterprising behaviours of their staff.

(2) How to determine, within those measures identified, if there is a primary set of measures that can be used in other large service organisations to measure innovation.

The second question was considered important by ServCo and EduCo as they could compare their performance to a national and international benchmark.
Chapter Two

Literature Review

Introduction

The review of the literature that examines and discusses creativity, innovation and enterprising behaviour in large service organisations has evolved from researchers’ observations from the middle of the 20th century to date. The literature appears initially to concentrate on the examination of those organisations that produce tangible products. Then there seems to be an extension of the theory and practices observed in these organisations to transplant the methods and processes into large service organisations. As further research interest has evolved, the literature examines the development of a range of measures that can assist managers and leaders of large service organisations. It appears that researchers continue to seek agreement on a set of terms. There also seems to be diversity in the literature of which term should be used when it should be used when they are discussing what creativity, innovation and entrepreneurship.

The literature also highlights the diversity of the interpretation and definition of what these terms mean. There appears to be many views contributing to a “working definition” of several terms. These working definitions could provide researchers with a service innovation framework that is then examined from a consistent position and then produce research outcomes that are comparable. The discussion in the literature of what these terms are, and how they relate to large service organisations, are many, varied and in some cases inconsistent. Many terms have now become part of a business vocabulary and often have evocative or emotional meanings when discussed. The diversity and divergence of views has contributed to a level of confusion of what the terms mean and how they apply to large service organisations.

In the literature, there are several interpretations of the terms creativity, innovation and entrepreneurship being cited.
Explanations of Key Terms

Creativity

Kao (1991) views creativity as “a human process leading to a result which is novel (new), useful (solves an existing problem or satisfies an existing need), and understandable (can be reproduced)”, which appears to preclude the notion of creativity when considering art or music as both are seldom created to solve a problem.

Fotell (1951), when discussing creativity, mentions processes that include products, services and techniques that are new.

Taylor, (1988) states that a creative idea cannot be produced by the same set of generic rules as a familiar idea, thus indicating that creativity depends on a conceptual shift in thinking (Boden, 2004). Often creation is associated with the arts, can it be associated with science or business? Is there scope or opportunity for creativity in anything but the arts? The literature reveals that to be creative outside the arts the idea, product or service is required to be appropriate (Amabile, 1996).

A challenge is presented in the literature of how to measure creativity. There have been several attempts linking creativity with intelligence, in particular the intelligence quotient (I.Q.). Tests have been devised by Torrence (1974) based upon problem solving skills showing that I.Q. is not linked to creativity. There appears to be an absence of research reported in the literature linking creativity to invention or innovation.

Many models of creativity have been proposed during the past century (Plsek, 1997). Most of these have a common feature: they depend on a balance between analytical and synthetic thinking, and usually describe the creative process as a sequence of phases that alternate between these states. The model developed by Graham Wallas (1926), for example, consists of four phases: preparation—definition of the problem; incubation—ignoring the problem for a while; insight—the moment when a new idea emerges; and verification—analysis of the new idea. This is the most elusive part of the creative process because it emerges abruptly and unexpectedly, often at a time when the subject is not consciously thinking about the problem. This has led to the proposal that subconscious mental processes during the incubation phase are important for a creative idea.
Invention

To invent, is to create or design something new (Oxford English Dictionary 2005, p. 1039). An invention can be an object, process, or technique which displays an element of novelty. In addition, an invention may sometimes be based on earlier developments, collaborations or ideas and the process of invention requires at least the awareness that an existing concept or method can be modified or transformed into a new invention. Some inventions also represent a radical breakthrough in science or technology which extends the boundaries of human knowledge.

Innovation

There are many explanations of the word innovation. The word is often used and quoted in written organisational materials, advertising literature and displayed on their websites and spoken by leaders and managers. The review of literature has identified a variety of explanations and views of innovation. Helms, (2000) for example, discusses innovation as the act of developing a new process or product and introducing it to the market. It is essentially an entrepreneurial act, whether it takes place in a start up organisation, a large organisation, a not-for-profit or a public-sector agency. Innovation generally stems from the purposeful search for opportunities. Another view suggests that innovation involves “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations” (Oslo Manual Definition 2006).

Rogers (1998) and Kimberly (1981) introduce another element to consider, as they believe innovation is a process through which new ideas, objects and practices are created, developed or reinvented. Further, innovation relates to the introduction and application of ideas within a role, group or organisation (King 1992) and it is most commonly associated with processes, products or procedures, or outcomes (Abernathy et al. 1983). It is something “new and novel”, rather than “newness per se” (Aiken and Hage 1971; Hage and Dewar 1973; Rogers 1995), and therefore subjective. It is designed with the intent to benefit the individual, the group, organisation or wider society (Hosking and Morley 1991; Anderson and King 1991; Hosking and Anderson 1992), though an innovation may have a negative and unanticipated impact if, for example, an industry or organisation is suddenly made redundant (Osborne 1998). Finally, and importantly, it is associated with discontinuous change (Tushman and Anderson 1986; Tushman and Nadler 1996; Osborne 1998) and it is a process of destruction. (Walker 2002). As can be seen from the above diverse
range of perspectives, leadership and management of large service organisations may be hesitant to embrace a single view, fearful that it may be incorrect. This uncertainty can translate into confusion and inhibit the development of innovative behaviours in an organisations culture.

Milbergs et al. (2006) discusses how innovation as a process creates useful products, services and processes for markets. It is interesting that to Linder (2006, p.41), innovation is “the implementation of new ideas or an attempt to create value. Innovation can be narrowly focused on the creation of appealing new products or services – or it can tackle the big picture, as in the crafting of effective new business models.” This may mean that innovation can provide a solution to small, medium or global problems. Finally, Shapiro (2006, pp 42-51) notes that there are three components to innovation: input, process and output. He goes further to highlight three types of innovation: incremental (logical improvements), expansionary (a new market or focus) and breakthrough (a totally new product and / or market). This approach to explaining innovation shifts away from Linder’s view by trying to break the explanation of innovation into small manageable compartments.

For the purpose of this research, innovation is considered to be taking an idea and then executing that idea.

**Entrepreneurship**

“Entrepreneurship” is that process of discovering, evaluating, and exploiting opportunities, which go on to reinvent themselves in the form of new business ventures. In this model an entrepreneur could be described as “someone who acts with ambition beyond that supportable by the resources currently under his control, in relentless pursuit of opportunity” (Stevenson and Gumpert 1985, pp. 85-94).

Schumpeter’s seminal work of 1946, constantly reminds practitioners and researchers of creative and enterprising work practices in this century that little is new (invented). Many organisations appear to be searching for the “answer”, that there is the one correct way to plan, create and manage for organisational success. Schumpeter’s work has been challenged by Stevenson et. al. (1989), whose frameworks, creative and innovative practices have been used in many organisations, countries, religions and cultures have demonstrated that there is no one way to achieve organisational success.
Research interest initially focused on what traits an entrepreneur possessed and their subsequent actions (Schumpeter 1942; Cole 1946; Hartman 1959; Collins and Moore 1970). The focus of this research seems to be on the individual entrepreneur. Schumpeter (1942) predicted that those organisations that invest in entrepreneurship will inevitably dominate the market place and also argues that an entrepreneur creates a profitable venture. He then suggests that the more entrepreneurs innovate, the more the economy will benefit. Further, he suggests that the more sources of entrepreneurial activity there are in an organisation, the more opportunity there will be for that organisation. Schumpeter (1942) also proposes that entrepreneurial driven economic activity leads to higher levels of income and that this relationship does not suffer from diminishing returns – there are no diminishing returns to entrepreneurial activity or innovation. Gartner (1988) also examined the role of the entrepreneurial organisation as an influence on organisational growth.

**Organisational Entrepreneurship**

As markets expand and become increasingly turbulent, organisations seek ways to maintain profitability: the emphasis of management has been to contain costs whilst increasing revenues. Mair (2001) suggests that the introduction and eventual institutionalisation of day-to-day entrepreneurial activity (doing things in large organisations in an entrepreneurial way) stimulates profit growth. Entrepreneurial activity also plays an important part in radical innovation discovery and wealth creation (Ahuja and Lampert 2001). These researchers consider organisational entrepreneurship as a means of growth and strategic renewal for existing large organisations (Guth and Ginsberg 1990).

Schumpeter’s (1942) explanation of entrepreneurship as, “the identification of market opportunities and the creation of combinations of resources to pursue it”, appears to be used as a working definition for many of the researchers in the field of entrepreneurship. It is claimed that the benefits of organisational efforts to improve innovation and to increase the appetite for risk and being proactive to environmental changes are a prerequisite for growth (Covin and Slevin 1991; Stevenson and Jarillo 1990). The behavioural effort required to affect positive change requires significant investment in time and money. Organisational entrepreneurship literature focuses on organisations that encourage medium to long-term results that are positive. These organisations concentrate on investment in their processes and people; they offer rewards, encourage risk taking and are somewhat forgiving when mistakes occur (Stevenson and Jarillo, 1990; Zahra and Covin,
Organisational benefits from entrepreneurship include more highly motivated employees, higher employee retention rates and the creation or strengthening of a positive culture (Stevensen and Jarillo 1990; Zahra 1993).

A variety of financial measures are examined, discussed and used by researchers. Zahra (1991) uses Return on Investment (ROI) and earning per share (EPS) over a 10-year period. Zahra and Colvin (1995) use return on assets (ROA), return on sales (ROS) and the growth of revenue when they examine the impact was on organisational performance when a corporate entrepreneurship strategy was embraced. In another study, Zahra and Covin (1993) study the effects of, and relationships between, technology, strategy and the return on sales (ROS) and found that a positive correlation existed. When an organisation embraced corporate entrepreneurship in a rapidly growing market place Colvin, et. al. (1994) measure performance using sales, sales growth, return on equity (ROE), gross profit margins, net profit from operations and return on investment (ROI). Morris and Sexton (1996), when studying the magnitude of entrepreneurial intensity, use the percentage change in profits and a financial measure.

The non financial measures used by researchers include: the growth of market share, percentage change of new customers and the percentage change in the overall customer base as market or customer measure (Covin and Slein 1994) and (Morris and Sexton (1996). Zahra and Covin (1995) use the measurement of process innovation and the level of automation as innovation metrics. The measurement of organisational entrepreneurship tends to be non-financial when a new venture commences and then financial metrics gain importance as the venture or organisation matures (Zahra 1993).

Organisational entrepreneurship has attracted an increasing amount of research interest, as new organisational models are resulting in increased business profitability. As interest in the field of organisational entrepreneurship has increased, the term “entrepreneurial orientation” has become popular and a research concentration has developed. A number of researchers have contributed to strategic management literature to discuss and refine the meaning and applicability of “entrepreneurial orientation” (Covin and Slevin 1989, 1991; Miller, 1983). Lumpkin and Dess (1996) argue that it embodies key entrepreneurial processes. They also characterise the “entrepreneurial orientation” by five key dimensions: autonomy, innovativeness, risk taking, pro-activeness and competitive aggressiveness (Miller 1983; Covin and Slevin 1991). Pinchot (1985)
coined the term “intrapreneurship” to describe entrepreneurial like activities inside organisations and government. The introduction of this term has contributed to further discussion and divergence of opinion when discussing an organisation’s “entrepreneurial orientation”.

When attempting to establish an organisation’s “entrepreneurial orientation”, the following researchers endeavour to explore its limitations. Lumpkin and Dess (1996) and Covin and Slevin (1991) measure an organisation’s “entrepreneurial orientation” and Miller (1983) and Covin and Slevin (1989), examine the relationships between “entrepreneurial orientation” and other characteristics (Covin and Slevin 1989; Miles and Arnold 1991; Becherer and Maurer 1997; Covin and Miles 1999). This exploration of these researchers work suggests that there is no one correct explanation found, only a variety of views and frameworks that may or may not work depending on the organisational context. Not only is there much conjecture about frameworks and their application by these researchers, but there are also many inconsistencies in the terminology used (Sharma and Chrisman 1999). Researchers have used different terms to explain similar concepts, frameworks and conceptual ideas. The concept of “entrepreneurial orientation” is also a victim of inconsistent terminology. Within the review of literature, the entrepreneurial orientation construct is also referred to as “entrepreneurship” (Miller 1983), “entrepreneurial behaviour” (Miller and Friesen 1982; Covin and Slevin 1986), “strategic posture” (Covin and Slevin 1989) and “entrepreneurial posture” (Covin and Slevin 1990, 1991).

What Determines a Service?

The *Economist* describes “services” as anything sold in trade that cannot be dropped on your foot (Hauknes 1999). This description introduces the idea that a service is an intangible product and that purchase of a service, therefore, does not result in the “ownership of any of the factors of production” (Bowen and Ford 2002). It can be argued however, that this explanation is too simplistic, as the boundary between product and services has become increasingly blurred. This blurring is particularly notable in the food service industry where the service and products, for example, the Big Mac hamburger cannot be separated from the act of a person serving the product.

The OECD (2000) suggests that services typically involve the provision of human value in the form of labour, advice, managerial skill, entertainment, training, intermediation and the like. Once again, this explanation is limited because a service may include elements of non-human value, such as the value that the humble hamburger has in the example above or it may be intermediated with
technology, such as the internet or an automatic bank teller machine, where there is no human contact at all.

Both explanations are implicitly based on the concept that the value of the service is in how the customer experiences it. The value of a service is perceived and held in the mind of the customer. Bowen and Ford (2002) suggest that a more comprehensive definition of a service is “all the elements that come together to create a memorable experience for a customer at a point in time”.

The study of the service industries indicate that the international economy is more reliant on services for wealth creation than it is for products alone. For example in 2001, for the first time in its history, Xerox generated over half its corporate revenues (53%) from services (Ogilvie 2004). Approximately 75% of all costs in manufacturing production and a similar employment percentage are accounted for by services provision. Such accountancy creates a false dichotomy (Hauknes 1999). Services account for over 60% of total economic activity in most OECD countries and for more than 70% in 10 countries.

Services are different to products, according to Stevens and Demitriadis (2005). Johne and Storey (1998) among others (Stevens and Dimitriadis 2005; Dolfsma, 2004; Caniels and Romijn, 2005), highlight the following characteristics of services as features that distinguish them from products. A summary of the key differences are:

**Intangibility:** Services are processes or interactions, existing in the mind of the customer, making them difficult to test. They are highly dependent on the customer contact staff that can easily modify the service without management agreement or organisational learning taking place. This makes quality control difficult. (Johne and Storey 1998)

**Heterogeneity:** Services are produced and consumed at the same time and thus the interaction is likely to vary each time. Customers buy a service that they cannot fully assess prior to purchase. Heterogeneity requires constant emphasis on training of staff to maintain quality and provide efficient and effective service. (Johne and Storey 1998)

**Simultaneity:** Service development does not produce services but service prerequisites. The service is only produced when the customer interacts with prerequisites (Johne and Storey 1998, p. 208). In most cases, services require the physical presence of the consumer. There is no separation
between production and consumption of the service. The link is so close it has been dubbed “prosumership” (Caniels and Romijn 2005).

**Perishability:** Caniels and Romijn (2005), identify perishability as a characteristic, because the consumer is required to be present, services are perishable and unable to be held in stock. Capacity planning is critical as demand may vary greatly and must be met promptly or risks being lost.

**Imitability:** Johne and Storey (1998) highlight imitability as a feature of services, arising from intangibility, is an important influence on innovation. Because services are processes that require interaction and are very difficult to protect and are therefore easily copied.

Based on these characteristics, Johne and Storey (1998, pp. 185-251) conclude that it is necessary in the course of service development to not only “develop the precise form of the service, but also the appropriate nature of the interaction with the customer”.

Services also vary from products in the way they are valued and selected by the consumer. Dolfsma (2004) categorises a typical product as a “search goods” and has readily identifiable qualities and value based on its appearance. Services on the other hand are “experience goods” or sometimes “credence goods”. The value of experience goods can only be determined after purchasing the service and consumers find it almost impossible to determine the value of credence goods, instead relying on the judgement of others, excluding the provider, to determine value. The increasing complexity of the service or newness will tend to push a service toward credence good. These different ways of valuing a good gives rise to different selection systems. “Market selection” is the most common form of selection for search goods. In this case, the consumer is unable to influence the process. “Peer selection” is where the consumer purchases a good based on the judgement of their peers whereas “expert selection”, relies an outside expert who is neither a peer nor the product provider, to help the consumer choose the service. In some cases, the reputation of the provider will allow them to act as the expert, however, reputation is also highly dependant on the opinion of third parties. The valuing and selection of services depends to a large degree on third party product endorsements. This brings into focus the network of influencers in the market place. The value chain is not directly from provider to consumer, but relies heavily on the opinion of the consumer’s peers and experts. This means that service providers have to be aware of the value network; how and to whom they distribute value and how value flows back to them.
Finally, the cost structures of service provision differ. Manufacturing requires the purchase and transformation of raw materials into finished product. There is usually a high capital cost associated with manufacturing requirements, inventory and supply chain cost. On the other hand, in service industries, the majority of cost goes into development of the product (OECD, 2000), meaning a much lower capital requirement and an easier entry into the market.

**Service Organisations**

Service organisations typically grow in one of two ways: through cutting costs or by increasing sales the latter requires the organisation to continually, innovate and generate new customer offerings to differentiate them from the competition. Kuckzmarski (2000, p.24), suggests that the “low-hanging fruit of cost cutting has been picked and to increase profits, innovation is required”.

Today’s market place is fast moving, characterised by rapidly changing consumer preferences, shortening and maturing product and service lifecycles and limited opportunity for differentiation (Gray et al. 2002). To stay ahead of the pack and remain competitive, a continuous flow of new offers is required (Stevens and Demitriadis 2005). This seems to be even more important for service organisations because service innovations are easily copied and it is well proven, that ideas sourced from the competition form the basis of innovation within service organisations (Sundbo 1997, p. 435). Research by Stevens and Demitriadis (2005) concludes that service innovation is a major competitive factor for the services industry.

**Innovative Services**

In its report, Statistics New Zealand (2004) explains innovation as the “introduction of a new or significantly improved product or service to the market or introduction of a new or significantly improved process within a business.” Hauknes (1999, p.31), notes that innovation is shaped by the competitive environment and is thus essentially a market phenomenon. Innovation can be expressed on a scale of radical to incremental (Sundbo 1997, p.45) or on a scale of giant leaps to small gains.

Matear et al. (2004, p. 295) observes that service innovations can be an important source of competitive advantage through improving both cost effectiveness and providing positional advantage. Business process innovation typically leads to increased efficiency in service delivery,
while service innovation leads to the presentation of a new service offering to the market, thereby differentiating the organisation from the competitors.

Service innovation is also proving to be important for traditional product organisations. Product advantage on its own, is no longer a good predictor of success or failure: the variations in the service experience explain most of the observed differences (Johne & Storey 1998, p. 191).

The importance of services in obtaining positional advantage is highlighted by Johne and Storey (1998, p.196) who note that new services are very rarely developed solely for their contribution to bottom line profit. Instead, they are often used to complement other products, broaden the product range, diversify or grow into new markets, attract new customers, enhance loyalty or change company image.

A summary of Storey and Kelly (2001) has identified the following drivers:

**Table 1 Drivers for Service Innovation**

<table>
<thead>
<tr>
<th>Profit</th>
<th>Develop distribution capability</th>
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<tbody>
<tr>
<td>Sales</td>
<td>Product improvement</td>
</tr>
<tr>
<td>Revenue</td>
<td>Extend and round out product range</td>
</tr>
<tr>
<td>Satisfy customer needs</td>
<td>Response to regulation</td>
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<tr>
<td>Market development</td>
<td>Customer satisfaction</td>
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<tr>
<td>Attract new customers</td>
<td>Image</td>
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<tr>
<td>To fill a market gap</td>
<td>Reduce costs</td>
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<tr>
<td>Strategic positioning</td>
<td>Market share</td>
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No matter what the drivers are for service innovation, Kuckzmarski (2000) emphasises that innovation is a required mindset that will drive the way managers think about their strategies, leadership and structures.
Service Innovation Frameworks

Stevens and Dimitriadis (2005) and Sundbo (1997), argue that service innovation is essentially an organisational learning process and discount the linear approach taken by many product and service development models. While the organisational learning process is not linear, it can be argued that the use of a linear model has real advantage in terms of organisational learning. Essentially, it helps to organise the learning process. Stevens and Dimitriadis (2005) and Sundbo (1997), continue to point out that innovation can be improved by learning how to organise the innovation process. Organisations should be cautious when attempting to capture the innovation process at a point in time as it is necessary to revisit organisational dynamics to ensure that it still meets the needs of the changing business environment. Ideally, the organisational innovation processes should be proactive and try to at least stay with the current business climate.

All work is a process and, as such, it can be improved to be faster, more effective and to provide greater chances of success. By aligning service innovation with strategy and resources, improved communication through the organisation regarding service innovation will, in turn, support its learning. The organisation will then enjoy a faster rate of project execution by providing focus on the project assisted by selecting the right projects that align with the organisations strategy. As a result, the organisation should be able to allocate resources in a systematic manner, by constantly challenging the development team’s assumptions to improve quality of service innovation. The benefits of this approach include superior risk management and the increased likelihood of a successful project outcome. Everyone in the company must know this project management process so it can draw on the strengths of the entire company. The development of new products or service innovation cannot afford to be something that happens “over there” Kuckzmarski (2000).

Intertwined Service Organisation Relationships

The relationships inside service organisations interactions often consist of four interrelated groups. They are the customers, the customer contact staff, the service development staff and management. It appears that if the relationships are firstly understood and secondly all concerned make the effort to optimise the relationships then, superior customer service levels should be attained.
Customer

The level of customer involvement will depend on the degree of market orientation in the organisation. The customer may seem an obvious participant, however, they are often neglected as new services originate in marketing or development and are pushed through. The customer often has a role in service innovation, the first as a source of ideas and the second as co-creators of a service to ensure that it meets their needs.

The importance of customers as a source of ideas is demonstrated by Matthing et al. (2004, pp.479-498) who found that in general, “expert panels assign higher scores to customer innovations, in all cases statistically significant, compared to innovations put forward by professional service developers”. This clearly signals, that you ignore the customer as a source of ideas, at your peril. The second role as co-creator of the service, involves the customer in multiple feedback loops during the design and build of the service, to make sure that the service will meet user needs. The role of the customer is to contribute their knowledge, skills and experience, their frustrations, requirements, expectations and their readiness to experiment and learn along the way (Matthing et al. (2004), Caniels and Romijn (2005, p. 593) also agree that involving users as active partners in innovation leads to higher uptake of new products and services.

Customer Contact Staff

As the primary interface with the customer, the contact staff is ideally placed to gauge user needs and develop ideas for new services to meet those needs, however this is rarely the case, according to Kelly and Storey (2000). To do this, the service staff must try to make the customer an insider, so that they can develop a shared understanding of the problems and opportunities facing the customer, rather than just consider a sales target (Caniels and Romijn, 2005). This process (e.g. focus groups) can prove to be a rich source of new service ideas.

Contact staff also play an important role in keeping the “voice of the customer” at the forefront, as well as their own needs as the co-producers of the service with the customer, during the service innovation development. This can be done through co-opting contact staff as a part of a cross-functional team during the development process can help to improve buy-in, the success of implementation and lead to improved customer service Johne and Storey (1998).
During implementation and service delivery, it is the interpersonal skills and competencies of the service staff that impact most on how the customer experiences the service (Kandampully and Menguc 2000) and therefore, the value the customer perceives in that service.

Development Staff

Development staff cover a wide range of functions, from idea generation and capture through to implementation, training and review. The development staff act as the hub of the development effort and are responsible for managing the service innovation process and pulling together the different players as needed. Leading service innovation organisations have “innovation departments”, which are not research and development departments but instead, stimulate and collect ideas throughout the organisation and sort them according to strategy to produce a continuous flow of new service ideas (Sundbo 1997). A similar concept is described by Hargadon & Sutton (2000) who promote the role of the “knowledge broker”.

Management

Most successful organisations have a positive and strong management style, the CEO especially, either makes or breaks the spirit of innovation (Kuckzmarski, 2000). A significant contribution to organisational success relates to the manager’s attitude toward risk. Senior managers must be supportive of risk taking, which often doesn’t come naturally, as shareholders reward returns, not risk (Kuckzmarski 2000). Johne and Storey (1998), support this claim, suggesting that generally a manager will do what is best for their own career growth and in many cases, this means avoiding failures and a results in an emphasis on the short term needs and imperatives in response to financial and sales pressures.

The leadership style of the leaders is the key difference in determining success. Co-leadership between the senior leader and the business and project leaders is critical (Matthing, Sanden and Edvardsson 2004). Business and project leaders take their cues from the senior leaders in the organisation. In organisations that have proven to be successful innovators, the style of the senior leaders was highly participative and communicative and processes were in place that focused on enabling the development effort to succeed (Johne and Harborne 2003).
De Jong and Kemp (2003), recognise seven constructs as the drivers of innovation at organisation level, among them are strategic attention, market differentiation, a supportive climate, job challenge and autonomy; all of which are directly influenced by senior management. “Those firms that develop innovative behaviour are more likely to realise incremental improvements”. (pp.189-212)

**Business Support Functions**

Business support functions such as information systems (IS), marketing, human resources (HRM) and finance, all have roles to play in the development and support of a new service but are perhaps the most influential are marketing and HRM.

Alam (2002) contends that “a firms focus on human resources, teamwork and user collaboration are the most important factors in new service success”. (pp.250-261) Aung and Heeler (2001), consider HRM to be one of the necessary core competencies of a service organisation. De Jong and Kemp (2003) recognise job challenge, autonomy and a supportive environment as being prerequisites for an innovative organisation. Because of the dependence of service production on people, the influence of this function is pervasive, from influencing decisions on business structures, on hiring people who bring certain skill sets and cultural influences, to design of incentive and remuneration packages and to the provision of training to managers and staff alike. This highlights the highly strategic component to HRM’s role. Perhaps the most important influence of HRM is the effect its decisions have on the organisation’s culture, which is seen to be the most important factor affecting innovativeness in an organisation (Stevens and Dimitriadis 2005).

Aung and Heller (2001) also regard marketing as a core competency of a service organisation. One of the key elements of the marketing mix, (price, place, product and promotion) is the communication with customers. Most organisations believe that communication is only one-way and therefore perhaps is more challenging for service products compared to physical products, which have tangible features. Market sensing, (the ability to anticipate, rather than react to changes in the market place dynamic) is also highlighted by Aung and Heller (2001) as a competency required to maintain contact with customer needs.
**Influencers**

Influencers are the people or networks the users refer to when making the decision to buy. This is especially important in services as the value of the service may be hard to define and therefore people rely on such external references. Warren et al. (1989), identified that other users of the services are the most frequently consulted source of information (44.6%) and also the most helpful source of information for people considering the purchase of a service. (pp.21-33)

**Competitors**

Owing to ease of copying service concepts, competitors are often seen as the best source of ideas rather than customers (Johne and Storey 1998). Competitors shape the service offerings of an organisation through competitive pressure and the willingness of organisations to follow a me-too approach to service development.

Sundbo (1997) makes the point that innovation is a cross-functional discipline, involves the development staff and that therefore, service innovation requires organisational commitment. More than this, it also involves the successful integration of other players, such as users and influencers. This wide variety of stakeholders, all have different views of a service, which add to the likelihood of capturing novel insights and so result in a superior service (Eisenhardt 1989, cited in Perks and Riihela, 2004).

**Service Innovation Framework Evolution**

The categorisation of the service innovation process into stages may be considered somewhat arbitrary but doing so to make decisions that are more rational and manage the process to more successful outcomes is warranted (Dolfsma 2004). The stages described in most models of the service innovation process are generally based on the Booz et al model (Perks and Riihela 2004) which breaks the process into three stages: concept development, service development and implementation (Stevens and Dimitriadus 2005; Sundbo 1997; Johne and Storey 1998). These broad categories can be broken down further and Alam (2002) proposes a 10-step model, which identifies distinct stages within the three categories.
Storey and Kelly (2001) and Sundbo (1997) highlight that innovation is, or at least should be, a strategically driven process and that a development strategy should be a prerequisite. Alam (2002) also recognises this need and includes strategic planning as the first step in his 10-step process. It is interesting to note that while several of the researchers specifically include measurement or evaluation of the service as a step in the service innovation process, they do not state the need for some form of measurement as a prerequisite to assist management’s decision making process.

In practice, the innovation process can be highly iterative, non-linear and informal according to Perks and Riihela (2004). This is influenced by the characteristics of the innovation. The characteristics of the innovation are one variable that feeds into the model to determine the path an individual innovation will take. Johne and Storey (1998) note that the relative importance of each stage in the innovation process is affected by the unique characteristics of the service, however, this does not mean that service innovation is unmanageable. In fact, there is consensus among researchers (Sundbo 1997; Kuckzmarski 2000; Matthing et al. 2004; Gray et al. 2002; Stevens and Dimitriadis 2005), that a deliberate approach to the development of new services is a prerequisite of success.

The innovation process model serves as an organisational memory aid to enhance the chances of success. There is a wide range of suggestions and recommendations as to what an innovation model should look like but the empirical studies that do exist have not reached consensus on a formalised development process (Stevens and Dimitriadis 2005). The table below attempts to pull together the different stages and related critical success factors, described in the literature review, to form a generic service innovation model. The model is an activity stage model based on the Booz et al. framework Johne and Storey (1998. p. 206).
<table>
<thead>
<tr>
<th>Stage</th>
<th>Task / Event</th>
<th>Description</th>
<th>Critical Success Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy Development</td>
<td>Business Strategy Developed</td>
<td>Business strategy positions service innovation within the organisation and shapes the organisation to enhance the likelihood of service innovation success.</td>
<td>Clear vision for role of service innovation in the firm. Accurate interpretation of the external environment. Strategy promotes systems and culture within the organisation that are supportive of service innovation.</td>
</tr>
<tr>
<td></td>
<td>(Page 31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concept Development</td>
<td>Idea Generation</td>
<td>The systems and processes used to generate a continuous flow of new ideas, allowing selection pressure to identify value creating services.</td>
<td>Customer orientation to identify customer needs. Ideas developed in conjunction with users. Engagement of customer contact staff. Culture and systems encourage flow of new ideas. Storage and referral to failures and successes to enable learning diversity.</td>
</tr>
<tr>
<td></td>
<td>(Page 32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Idea Screening</td>
<td>Selection of new ideas for further investigation and business analysis, based on business and market requirements.</td>
<td>Market rather than technically driven. A strategy to guide selection. Pre determined organisation specific selection criteria. Criteria reflect factors that are likely to lead to success. Decision makers in touch with the market.</td>
</tr>
<tr>
<td></td>
<td>(Page 34)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Definition of Service Concept</td>
<td>Defines the customer needs and how the service will satisfy those needs as well as how the service will help to meet organisational goals.</td>
<td>Defines customer needs and how they will be met. Defines how organisational goals will be met.</td>
</tr>
<tr>
<td></td>
<td>(Page 36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forming of Cross Functional Team</td>
<td>Forming a project team with representatives from multiple functions and user groups to conduct business analysis and service development</td>
<td>Early involvement of all functions.</td>
</tr>
<tr>
<td></td>
<td>(Page 37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Analysis</td>
<td>Market information confirmed and financials completed.</td>
<td>Value networks identified and mapped. Distribution system and variety of channels.</td>
</tr>
<tr>
<td><strong>Gain Corporate Approval</strong></td>
<td>Organisation agrees project should proceed or stop. If it proceeds, full resources and support are made available to complete project.</td>
<td>Projects prioritised and sufficient resources allocated to project. Project champions at all levels of leadership.</td>
<td></td>
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<tr>
<td>---------------------------</td>
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</tr>
</tbody>
</table>
| **Service Development**   | **Service Design**  
(Page 40) | The service definition is turned into a working service that integrates with the existing service provisions of the organisation. | Project management discipline. Skilled development staff. User and customer contact staff involvement. Nature of customer interaction is planned. Integration into the wider program of service offerings. Cost effectiveness and timeliness. Services are familiar to customers, of low complexity and easily understood. |
| **Process Design**  
(Page 41) | The processes required to support the service are designed, including interaction with existing process. | Leveraging existing knowledge about the customer. Cost effectiveness and timeliness. Speed and cost to market. |
| **Test**  
(Page 42) | Testing of the service design, the supporting processes and marketing material. | Feedback from customers. Feedback from all parts of organisation. |
| **Freeze Service Design**  
(Page 43) | Settling on the final service and process design to be rolled out. | Institutionalising the service design in processes and support systems. |
| **Implement** | **Training of Customer Contact Staff**  
(Page 44) | Making sure the contact staff are familiar and comfortable with the service and have the technical and customer service skills required. | Technical and customer service skills of staff addressed. Heterogeneity managed. |
| **Commercialise**  
(Page 44) | The service goes live in the market place. | Involvement of all functions in monitoring. |
| **Review** | **Process Review**  
(Page 45) | A review of the development process to highlight learning that can be used to improve the process in the future. | Process manager is appointed to take responsibility for incorporating feedback into service innovation process. Learning is shared among development team. |
| | **Service Review**  
(Page 46) | A review of the service implemented and how it is progressing according to objectives. | Person made responsible for measurement. Measures related to strategy and objectives of project. |
The Development of Innovation Services Strategy

A prerequisite for innovation is a development strategy according to Storey and Kelly (2001), which in turn requires an organisational strategy that accurately interprets the business environment. Service innovation strategies often fail in many service organisations as they do not adopt a strategic focus. Senior management needs to be committed to innovation. Empirical evidence presented by Storey and Kelly (2001) also demonstrates that organisations which are successful at innovation have clear innovation strategies.

To be effective in a business environment and provide strategic direction, the organisation must have a yardstick that will assist it in the selection of innovative ideas (Sundbo 1997). The organisation is required to highlight areas of business critical needs for service development, so that ideas can be sought to address these needs (Perks and Riihela 2004). This provides a top down strategic approach to idea generation. Positioning the service innovation effort in the organisation and providing a clear vision for its role in business growth (Johne and Storey 1998), enables appropriate resources to be directed to service innovation and further the development of ideas to be appropriately integrated into the business as a whole. Finally, the organisation can assist the creation of a balanced portfolio of its service innovation activities by not overlooking the overall needs of the ongoing operational requirements (core activities) of the organisation.

There are four generic strategies described by Miles and Snow (cited in Storey and Kelly 2001, p.48) in relation to service innovation:

- **Prospector:** An organisation that values being first to market with a new service concept,
- **Analysers:** A fast follower with more cost efficient or innovative product that has enjoyed a lifecycle advantage,
- **Defender:** Is strong at either locating or maintaining a secure niche by protecting its position in a relatively stable or mature market and
- **Reactor:** Usually responds to market changes only when forced to by environmental pressures or aggressive competitor behaviour.

Deciding which above stance the organisation will assume, is a useful first step in developing or understanding service innovation strategy within an organisation.
The business as usual strategy (*Reactor*) also has a significant part to play in the success or otherwise of service innovation through its influence on the culture of the organisation, the level of internal bureaucracy and support systems. Johne and Storey (1998) note that at a corporate level, service innovation requires commitment, culture and appropriate systems to facilitate innovation.

Commitment is needed because service innovation is a risky business and requires investment. The risk can be managed by the use of an appropriate service innovation process to select projects that are more likely to succeed, but it is also necessary to take a longer term view and look beyond the short term financials. A significant part of the commitment is to the development of an innovative culture. Dimensions of an innovative culture include support for risk taking, (Johne and Storey 1998), customer orientation (Gray et al. 2002), knowledge sharing (Darroch and McNaughton 2003) and promotion of learning (Stevens and Dimitriadis 2005). It is also important that the culture is balanced and takes into account all stakeholder groups, both internal and external (Gray et al. 2002).

From a strategic human resource management point of view, the culture and the structure of the organisation has to be appropriate in order to foster service innovation, for example, cross functional teams have been shown to be important components of service innovation. Internal structures are needed to support teamwork and development programs are required to assist staff to work more effectively in teams. The next most important level is that of the individual, service innovation that must also be aligned through individual job descriptions and the employee reward system (Johne and Storey 1998). People react to incentives and remuneration incentives that promote individual achievement and tend to diminish teamwork initiatives.

From a business process point of view, any system that is used must maintain low levels of bureaucracy, as this can be stifling to an innovative culture (Johne and Storey 1998). Organisational systems must be designed to support innovation and encourage co-operation. The strategic approach to systems must also recognise the changes that take place in an organisation because of service innovation and must balance the needs of new and existing services.

### The Generation of Ideas

A continuous flow of process and service innovations are a prerequisite for being competitive in business today. The generation of ideas is the starting point, so to provide a flow of possible new
services, the flow of new ideas should be continuous.

Ideas for new services come from a range of sources both internally and externally and can be a result of serendipity or a strategic focus. A consistent flow of ideas provides an organisation with the opportunity to be more selective and chose ideas that are most likely to be a success. Service organisations believe that they can generate new service ideas as and when required, and generally do not have formal idea generation mechanisms (Kelly and Storey 2000). It is also interesting that Sundbo (1997), notes that service organisations tend to capture ideas fortuitously, with informal contacts with colleagues in other organisations shown to be the most important source of new ideas. Dolfsma (2004), who demonstrates that the majority of ideas for creating new services come from competitors, supports this.

Surprisingly, the customer does not often feature as a source of ideas and in a survey of businesses by Kelly and Storey (2000) customers only ranked as equal 10th as a source of ideas. Even customer contact staff, the people most likely to be in touch with customer needs, only ranked eighth. Demanding customers often cause organisations to reflect on their current service levels and rapidly adjust their service level delivery to meet the new demands of customers.

This approach, according to Kelly and Storey (2000) poses a serious risk for an organisation of becoming a “me too” innovator, resulting in innovation becoming reactive and defensive in nature. This may be acceptable for some organisations but provides no differentiation in the market place, taking away an important tool in strategic positioning and creation of competitive advantage. Customers or users have been demonstrated by Matthing et al. (2004) to be a superior source of new service ideas, with expert panels consistently ranking customer ideas ahead of those generated within the organisation. Caniels and Romijn (2005) further observe “knowledgeable and demanding customers are a valuable asset in supporting development of new insights, solutions and technologies”. (pp.591-608)

Unique ideas are often produced by customers at unexpected times and triggered by a sudden experience, so typical market research tools such as focus groups or surveys are unlikely to yield great results (Matthing et al. 2004). This has tended to result in minor improvements rather than innovative thinking and breakthrough products because customers have difficulty in imagining and giving feedback on something they have not experienced according to Matthing et al. (2004). New ways of interacting with users need to be developed to generate breakthrough ideas. The latent
needs of customers need to be identified, which are regarded by Matthing et al (2004, pp.479-478), as “what customers really value or the products and services they need but have never experienced or would not think to ask for”.

Matting et al. (2004) also highlight that difficulties sometimes occur in translating customer ideas into service development projects because they can seem overly simple to development staff. The language used by development staff and their mental models provide roadblocks to the adoption of customer ideas. Other roadblocks include the inertia of old products and services (Johne and Storey 1998).

The importance of competitors as a source of ideas has also been highlighted. This importance arises from the fact that existing services are easy to copy and pose less of a risk to the organisation. Depending on the environmental context this could be an acceptable strategy and if so, then appropriate resources should be devoted to “market sensing” (Aung and Heeler 2001), to ensure that competitor developments are monitored.

Research into creativity has found that idea generation improves with exposure to other potentially relevant ideas (Kelly and Storey 2000). Hargadon and Sutton (2000) promote the concept of a knowledge broker, the role of which is to keep and resurface old ideas as the business environment changes and to link different parts of the organisation to stimulate new ways of thinking about old problems and solutions. Idea generation also performs a tangible way of accessing and acknowledging ideas. Within a service organisation, there is usually a moderate to high level of intrapreneurship as staff modify services to meet customer needs. This often leads to the development of new services that could benefit the wider organisation.

**Selection of Ideas**

With a continuous flow of ideas coming from the organisation, management attention turns to selecting and allocating resources to further investigate and provide a business case for those ideas that are most likely to create value for stakeholders and therefore meet the goals of the organisation (Kelly and Storey 2000).

Kelly and Storey (2000) highlight that there are significant costs in getting it wrong, including:
1. Wasted development and management effort (capability and capacity),
2. Adverse effect on corporate image (external perceived risk) and
3. Wasted opportunity in pursuing other options (opportunity cost).

There are three broad areas that should be considered during an initial screening of ideas to assist management and staff to select which ideas should be further developed. They are:

1. Business specific concerns,
2. Market concerns and
3. Fatal flaws.

Business specific concerns relate to the alignment of the idea with organisational strategy and the ability to develop and operate the selected service. Caniels and Romijn (2005) note that past actions influence the feasibility of future innovations. The level of refinement of structures, functions, incentives, organisational routines and existing mental models also influence the level of innovation an organisation can cope with.

There may also be concerns regarding the size of the market and the likelihood of market adoption. The size of the market may be unclear initially but a likely market adoption rate should be quickly assessed. McDonald (2002) suggests the diffusion rate of innovation, or the likely adoption rate of a new service, is affected by the relative advantage over existing products, its compatibility with lifestyles, values and fashion. MacDonald also highlights that the three areas of communicability (is it easy to communicate and will people understand the benefits of new service offering?), complexity (how easily is the idea understood or enacted?) and divisibility, (can a customer try it out on a small scale before commitment?) are required for service success. Fatal flaws are those conditions that would prevent the innovative project from proceeding, regardless of other considerations. The prime examples of fatal flaws are that there is no market acceptance of the new service and that the organisation does not have the capacity to delivery the service to meet the customer’s expectations. The difference between a fatal flaw, a weakness or a threat is that the fatal flaw is fatal, whereas the weakness or threat may be often be overcome.

An organisation requires the development of screening criteria and according to Kelly and Storey (2000); Johne and Storey (1998) and Sundbo (1997), possible criteria include the “fit” with the organisation’s strategy and marketplace. Other screening criteria require the organisation to
consider fit with its image, delivery systems and resources and the estimated size of the market and acceptance by the market. The major challenges include the ability of the organisation to deliver and rapidly determine that no fatal flaws are present. These criteria should be developed into organisation specific measures, relating to the respective strategy and capability. It is worth noting that screening models do not generally build in the factors that empirical research would suggest would enhance success, instead there is an overwhelming focus on financial and market criteria (Kelly and Storey 2000). Given the range of reasons for which service innovation is undertaken, such criteria therefore are of limited use.

After the generation and capture of ideas by an organisation, proprietary knowledge, market experience and the organisation’s collective wisdom is usually applied to the idea and it’s potential. There are often few facts known about the idea as it has not been seen before in the market place and therefore screening is qualitative, relying heavily on the opinion of management (Kelly and Storey 2000). It is important that the management making the decisions have access to organisational strategy. Matthing et al. (2004) suggests that customer involvement may also be beneficial during the screening process to make sure market needs are being met.

**Refining the New Service Innovation Concept**

During the concept development phase, the organisation takes the idea that has been approved for further investigation and gathers more information to validate assumptions and allow a quantitative appraisal of the proposed new service this finally results in management approval and provision of the resource to commercialise the service.

The idea, as it comes forward from the screening process, requires additional definition and scoping prior to being handed over to the project or delivery team. While it is expected that the project team may revisit the reasons for the idea initially, it is important to continually refine and test the idea while not losing sight of maintaining the idea’s integrity.

The definition of the service being developed and refined, should also include the scope the target market segment, the customer’s needs and how the service will satisfy those needs, leading to the clarity of customer benefits and product advantage. The service innovation definition, should also address how the service will help to meet organisational goals, remembering that delivery of a
customer focused service is simply a strategy to meet organisational goals and not an end in itself (Caniels and Romijn 2005).

A Cross Functional Team Based Approach

Another challenge for organisations is to ensure that as many variations as possible, additions or subtractions to service innovations during the refining process, will contribute to the likelihood of success. One way to achieve this is to include staff from different parts of the organisation in the development of service innovation. Their ideas add value when they form a cross functional team. Team members could come from marketing, finance, human resources and administration. The “importance of cross functional interfacing and integration is virtually unquestioned in the literature,” according to Perks and Riihela (2004, p.39) and Kahn (1996, cited in Perks and Riihela 2004, p.41) even goes so far, as to suggest “cross functional teams are the difference between success and failure”.

Cross functional teams bring both conceptual and organisational benefits to a service innovation project. Conceptually, individuals from different functions can often have different world views and perspectives on a service and this diversity can lead to complimentary and potentially novel insights (Eisenhardt 1989, cited in Perks and Riihela 2004, p.44). From an organisational perspective, to be successful a project must work within a wide range of constraints that originate in different parts of the organisation (Stevens and Demitriadis 2005). These constraints are not readily identifiable to the innovation development team, so the involvement of individuals from other functions helps to develop organisational understanding. For this reason, it is very important to get major functions, (e.g. marketing, administration, sales etc) involved very early in the development of a new service. This is especially important with more radical innovations (Hull 2003), where major investment and change will be required as communication allows the functions to have input to the concept and properly calculate the requirements to complete the project Perks and Riihela (2004). This early involvement will also help to increase buy in of the different functions and allow cross functional teams to plan to integrate requirements for the service innovation as smoothly as possible.

The timing of involvement is important and Perks and Riihela (2004) caution organisations that making (forcing) individuals to become members of cross functional teams without a plan. Promoting to staff that being in such a team will produce the best outcomes, often negatively impact on the outcome of the development process. Hull (2003) suggests that early involvement of a wide
cross section of staff from different areas of the organisation is beneficial but following concept development and approval functions should be involved on an as needed basis. Outside of the specific service innovation project, cross functional teams also benefit the organisation through opening channels of communication and widening communities of practice. This assists organisational learning and in turn creates a desire to learn; one of the cultural norms in an innovative organisation.

Organisations should plan carefully when creating cross functional teams. Service innovation projects benefit from the inclusion of people occupying a marginal position in the organisation. The perspective of someone outside the main operations often provides insight as they are not involved in the structures, politics and tensions of existing teams. Stevens and Dimitriadis (2005), reflecting on the need for diversity to gather different perspectives, suggest that too much convergence may produce conformity rather than innovation. Nor should the team be regarded as fixed different people should be able to come and go as different skills are required. This can also be true of project managers and the merits of having more than one person responsible for the project have been identified by both Perks and Riihela (2004) and Johne and Harborne (2003).

Many organisations would consider teamwork to be the basis of their standard mode of operating and some achieve high performance teams which deliver exceptional services. Perks and Riihela (2004), however, remind us that the first task of a project team should be to reach a shared understanding of the service innovation project goals. They note that, because of the intangibility of services, the challenges of communicating and interpreting and sharing information, demands concerted effort and skill. These challenges are due to functional differences in business direction, language, training and backgrounds, in short, what could be termed “tribalism”. The presence of competing groups or tribes can make goal reconciliation a difficult challenge and requires team members to focus at an organisational level rather than at a business unit level. Perks and Riihela (2004) suggest that formalised rules and procedures have been shown to increase cross functional effectiveness. Clear hierarchy and authority structures are crucial to govern and concentrate inter-functional interaction, although overly bureaucratic organisations can in fact stifle innovation.(pp.54-58)
Organisational Requirements Analysis

During the organisational analysis phase, the project team attempts to refine market information to establish the market attractiveness and the viability of the proposed service. This should include an analysis of the service network to determine who might influence the service and any potential intellectual property concerns or opportunities. A project plan will also be developed for creating the service and supporting processes, using the inherent strengths of the cross functional team(s) to understand all the organisational requirements and to incorporate the user of the service to maintain focus on their requirements. At this point, it is important to understand how the service will result in changes to customer interactions, information systems, process requirements and even the organisational chart (Stevens and Dimitriadis, 2005).

The organisational aim is to complete a business case demonstrating the likely benefits, financial investment and risk minimisation strategies of the proposed service innovation. The organisation may support the proposed service innovation without profits in mind: the service innovation may be implemented to enhance customer satisfaction, build loyalty, or simply to match a competitor (Stevens and Dimitriadis, 2005).

Organisational Approval Processes

Organisations often have a second or, in some cases, a third level of screening and refining of an innovation opportunity as part of their internal risk management processes. It is reasonable that a project with a lesser financial performance may be ranked ahead of another based on the way it would help to shift, for example, market perception. Such a ranking, however, relies heavily on a sound strategy and an accurate interpretation of the environment. Johne and Storey (1998) suggest the following factors should be considered during screening.

Table 3 Screening Criteria
A summary of Johne and Storey (1998)

<table>
<thead>
<tr>
<th>Market knowledge</th>
<th>Understanding of customer needs and behaviours, clearly identified market segment and competitors are understood.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market orientation</td>
<td>Customer service orientation, consultation with the user and market research.</td>
</tr>
<tr>
<td>Market attractiveness</td>
<td>Size and potential growth of the segment or market.</td>
</tr>
</tbody>
</table>
If a service innovation concept is approved by the organisation, it is at this point that it becomes a project. Acceptance should mean that sufficient resources are allocated to see the project through to completion. One of the contributing reasons for failure of service innovation projects is that resources are spread too thinly (Johne and Storey 1998). Where service innovation concepts are not approved, it is important that they are stored and re-evaluated over time, because organisational needs and the environment may change creating new opportunities for the concept.

New service development processes differ in organisations and require further decision points during the development phase as the service innovation is prototyped (Cooper 2006). Because of the difficulty and expense in creating a prototype and engaging in extensive customer involvement, further approval should not be required, unless however, the internal or external conditions of the innovation project change considerably.

Service Innovation Design

Service design is about bringing the innovation concept to life. Stevens and Dimitriadis (2005) assert that the major output of development is to imagine, design and formalise scenarios of delivery. The results of this development can be thought of as the prerequisites of service as the service is not produced until the customer interacts with the organisation. This can be considered true where the service involves only human interaction. Many new services however, also require the application of other resources, in particular communication technology such as the internet. It is more helpful to think of this stage as planning the nature of the customer interaction and building any supporting tools or facilitating goods (Kelly and Storey 2000).

During service innovation design, customer involvement should play an even more critical role in service development than in the development of tangible products according to Matthing et al. (2004), since the service is often co-produced with the customer. This is a potentially expensive exercise as the heterogeneity of customer needs dictates that a large number of users are consulted to help understand their range of needs. If it is not managed carefully, this can also lead to what is termed “scope-creep” as customers suggest further service enhancements during consultation. Where the proposed services, are similar in delivery expectations to current customers, but reduced, it becomes increasingly important to enhance internal competencies around market intelligence, or increase market sensing to anticipate any negative reactions from customers (Aung and Heeler 2001).
Cross functional involvement with customer contact staff is also critical during this stage, as they will be able to inform the development team about integration with the service innovation of existing services and the plausibility of the new service routines being planned by the development team. The interpretation and adoption of the new service by customer contact staff is critical to successful implementation. Offers services to customers that are familiar to staff, which are of low complexity and easily understood by the staff will be more easily implemented, which will in turn positively affect the heterogeneity and quality of the new service provision (Kelly and Storey 2000).

Johne and Storey (1998) note a “trend toward modularisation of services” where service organisations provide a “café” of possible service modules and in conjunction with the customer, work together to customise a suite of service modules to meet the customers’ unique needs. In effect, this creates a new service every time, but allows the organisation to gain some economies of scale through standardisation and repeated use of the service modules. Such standardised service generates standardised customer expectations and makes heterogeneity easier to manage.

With the increasing availability of information communication technology, it is becoming possible to provide services without human intervention. Technology can enable services to be embedded in software, which Dolfsma (2004) refers to as “firmware”. He states that this can provide significant competitive advantage as it increases the opportunities to apply intellectual property protection mechanisms and as a result, can reduce the likelihood of the service being copied. Such opportunities should be investigated during the service design stage.

**Service Innovation Design Processes**

Process design is about planning the interactions and integration of the new service with the existing organisational process, structures and routines.

Cross functional involvement is also important during the process design stage to manage the expectations across the different functions, especially where the proposed service is in conflict with existing systems. Stevens and Dimitriades (2005) suggest that new innovations may also require changes to the organisational chart.
One area of significant potential to create competitive advantage is in leveraging information that has been collected previously about the individual customer (Dolfsma 2004), although this is dependent on an adequate information system. Information can then be used in marketing and in new service provision to speed up or add value to processes, creating cost efficiencies and reducing the need to repeatedly collect similar information. In doing this, the service organisation is able to gain the operational leverage that manufacturers achieved 100 years ago (OECD 2000, p. 7).

**Service Innovation Pre Launch Evaluation**

Evaluation of the service innovation provides an opportunity to verify the functionality of both the customer interaction model and technical components of the service, as well as to verify that the supporting processes are in place prior to launching the new service innovation (Johne and Storey 1998). Evaluation is often carried out in a branch or region through promoting the service directly to customers, rather than through any high profile launch. The evaluation process of a new service can prove difficult due to the lack of a physical prototype. For this reason, some organisations choose to skip the evaluation phase, claiming that there is little difference between the cost of testing and going live and that market failure consequently can be cheaper than testing (Johne and Storey 1998). A poorly developed service however, can have significant negative effects on the image of the organisation and result in customer’s dissatisfaction and wasted commercial opportunities (Kelly and Storey 2000). It may also be likely that a poorly developed service will result in a loss of trust in the development team by the customer contact staff, making the implementation of further new services difficult. It can be argued that a level of evaluation is beneficial as it presents the opportunity to correct mistakes in the design of service and support systems.

A further negative associated with evaluation, is that it alerts an organisation’s competitors to the service innovation development (Johne and Storey 1998). If the service is easily copied and implemented by the competitor then this may remove any competitive advantage that would have accrued to the original innovation. On the other hand, the competitor response to the development provides some insight to the market value of the innovation (Johne and Storey 1998).
Halting Service Innovation Development

It is important for managers to consider an end point in the development of service innovation, as this is the “freezing stage” according to Stevens and Dimitriadis (2005). At this point, the organisation has to commit to a version of the service and proceed to market. This is an important step in managing heterogeneity, so that a reasonably uniform service can be offered to the customer. Freezing the service is achieved through the institutionalisation of the service in the routines of the organisation (Stevens and Dimitriadis 2005). This means that the service and processes associated with that service cannot be avoided by customer contact staff. Strategies for institutionalisation include, internal marketing of the service, incorporating it into regular training and into the organisation’s information systems. Information systems provide an opportunity to both institutionalise and standardise the service, especially where the information system is intimately involved with producing that service (Dolfsma 2004, Stevens and Dimitriadis 2005). Developers should consider the requirement to institutionalise the service during the service and process design stages of a service innovation project.

Service Innovation Implementation

Implementation is the process of taking the newly developed service live and involves the training of customer contact staff and subsequent roll out of the new service through the organisation. When the customer experiences the service and forms a judgement as to its value; a judgement that they will quickly pass on to their peer group, ensuring the success or failure of the service (Dolfsma 2004). It is also important that, where a service is recommended by a customer to a peer, the peer receives a recognisably similar service. Managing the heterogeneity of services to provide a more uniform experience of the service, is a source of competitive advantage (Kelly and Storey 2000).

The underlying philosophy is that it is less expensive to retain an existing customer than it is to attract a new one (Kandampully and Menguc 2000). A report of positive experiences through peers and experts is also a powerful marketing tool. The quality of service plays a major part in this therefore, the technical and interpersonal skills of the service staff are critical to the success of the service according to Kandampully and Menguc (2000) and resources should be dedicated to making sure they can deliver quality service. Services can be adapted slightly each time they are delivered, as service staff adjust the rules of the service to local conditions and seek to enhance efficiency (Stevens and Dimitriadis 2005). Small variations are acceptable but unfortunately, quality
management and the management of sales staff are two of the significant obstacles affecting services provision, according to Caniels and Romijn (2005). Engagement and training of customer contact staff is an area that needs attention. Inclusion of customer contact staff throughout the development process appears to be an opportunity to address this. It has been noted earlier that this group is typically not involved in ideas generation and development of new services, possibly leading to disenfranchising them from the service. The importance of cross functional integration throughout the development process has been stressed, with some of the main benefits being usability by the customer contact staff and an associated buy in (Caniels and Romijn, 2005).

**Delivering Service Innovation**

Johne and Storey (1998) have observed that there are often problems integrating a new service innovation into ongoing operations and processes. These problems arise due to entrenched services, processes and structures. Stevens and Dimitriadis (2005) note uncertainty as to how the new service complements the existing service. Strategy also plays a significant role in facilitating the integration of the service innovation into current operations. Clear organisational signalling of the direction the organisation is heading can assist the introduction of the new service. This effectively gives permission to focus energy on the new service innovation at the expense of one or more older services that may be phased out.

Hull (2003) suggests that cross functional involvement should be increased during this time of delivery to ensure that the new service innovation is integrated smoothly. There can often be a level of interdependency between current and new services that is not obvious during the build and test phases (Johne and Storey 1998), so all functions need to be on the look out for potentially negative unexpected consequences so that they can be addressed.

**Review and Reflection of the Service Innovation**

Each new service project should be evaluated on a wide range of measures according to Storey and Kelly (2001). This is an important organisational learning step and can take place at a number of levels. Kuckzmarski (2000) suggests that measurement is appropriate at the project and process level. Storey & Kelly (2001) recognise three levels: project, program and corporate. Kaplan and Norton (cited in Storey and Kelly 2001) suggest four measurement perspectives be considered to produce a measurement matrix as illustrated below. The perspectives are financial, customer,
internal measures and learning and growth measures. These four elements when combined are often called the ‘balanced score card’.

**Table 4 Service Innovation Measurement**

<table>
<thead>
<tr>
<th>Measurement Level</th>
<th>Measurement Perspective</th>
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<tbody>
<tr>
<td></td>
<td>Financial Measures</td>
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<tr>
<td></td>
<td>Customer Measures</td>
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<tr>
<td></td>
<td>Internal Measures</td>
</tr>
<tr>
<td></td>
<td>Learning &amp; Growth</td>
</tr>
<tr>
<td>Project Level</td>
<td></td>
</tr>
<tr>
<td>Process Level</td>
<td></td>
</tr>
<tr>
<td>Program Level</td>
<td></td>
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<tr>
<td>Corporate Level</td>
<td></td>
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</tbody>
</table>

Storey & Kelly (2001, p.83)

To complete the matrix, Johne and Storey (1998) identified 75 different published measures as at 1998. This supports Shapiro’s observation that, “you can’t measure innovation by a single universal yardstick” and he continues by suggesting that a successful innovation may even make an existing measurement scheme obsolete (2006, p. 42). This highlights that measurement is both organisation and service innovation dependent. To create an appropriate set of measurements for an individual organisation, Kuckzmarski (2000) provides a guide to managing the measurement of innovation. In the guide, he advocates appointing an innovation investment measurement team to identify suitable metrics and measurement periods and to develop a process for collecting the data that works for the organisation.

**Reflection of the Service Innovation Process**

Kelly and Storey (2000) observe that some organisations consider being successful in the design, development and implementation of a service innovation to mean that the process can be repeated. Organisations once having enjoyed service success simply keep repeating the same processes without paying close attention to organisational market and environmental changes. This however, is not a good indicator of future success. It is essential therefore, to evaluate the service innovation development process in order to understand, not only what could be improved but also to reflect on
what was successful and why, so that this learning can be brought into the organisational consciousness and used to enhance the chances of future success.

To facilitate organisational learning and transfer of knowledge, a strategy of mixing the team for future service developments and encouraging a community of practice around development could be examined. It is critical to build this expertise within the organisation in order to meet the demands for expertise required for successful service innovation. Managers consistently highlight the lack of development expertise as a significant barrier to innovation (Johne and Storey 1998; Storey and Kelly 2001; Stevens and Dimitriadis 2005). They consider it difficult to hire appropriately skilled staff, therefore, making internal development the only option.

Table 5 Potential Measures of Service Innovation Success

<table>
<thead>
<tr>
<th>Measurement Perspective</th>
<th>Financial Measures</th>
<th>Customer Measures</th>
<th>Internal Measures</th>
<th>Learning &amp; Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Against development budget</td>
<td>Customer involvement at critical stages</td>
<td>Availability of resources, Speed to market and Satisfaction of staff involved</td>
<td>Error reduction and Intangible improvements</td>
</tr>
</tbody>
</table>

Kuckzmarski (2000, p.24)

**Reviewing the Levels of Service**

The organisation’s business strategy and the objectives of the service innovation development as they relate to strategy, should dictate the way service innovation can be measured (Storey and Kelly 2001). It is recognised that service innovation developments take place for a number of reasons such as growth, market penetration, augmentation or to round out services, therefore, these objectives should form the basis for measurement, review and reflection of why a service innovation has achieved success or not. The most active and successful service innovation organisations tend to focus more on the customer measures. On the other hand, less innovative organisations, who typically copy services, tend to be more focused on financial measures. Overall, a service innovation organisation’s measurement of project success is still dominated by profit and sales (Storey and Kelly 2001).
Storey and Kelly (2001) and Kuckmarski (2000) suggest that the following measures of project performance are used in successful organisations:

**Table 6 Measurement Perspectives**

<table>
<thead>
<tr>
<th>Measurement Perspectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Measures</strong></td>
</tr>
<tr>
<td>Profit</td>
</tr>
<tr>
<td>Sales</td>
</tr>
<tr>
<td>Return on investment</td>
</tr>
<tr>
<td>Market Share</td>
</tr>
<tr>
<td>Usage</td>
</tr>
<tr>
<td>Costs</td>
</tr>
<tr>
<td>Sales Growth</td>
</tr>
<tr>
<td><strong>Customer Measures</strong></td>
</tr>
<tr>
<td>Customer satisfaction</td>
</tr>
<tr>
<td>New Customers</td>
</tr>
<tr>
<td>Market Feedback</td>
</tr>
<tr>
<td>Customer Retention</td>
</tr>
<tr>
<td><strong>Internal Measures</strong></td>
</tr>
<tr>
<td>Future potential</td>
</tr>
<tr>
<td>Efficiency</td>
</tr>
<tr>
<td>Success Rate</td>
</tr>
<tr>
<td>Against objectives</td>
</tr>
<tr>
<td>Strategic fit</td>
</tr>
<tr>
<td>Contact staff feedback</td>
</tr>
<tr>
<td>Service survival</td>
</tr>
<tr>
<td><strong>Learning &amp; Growth</strong></td>
</tr>
<tr>
<td>Cross functional skills</td>
</tr>
<tr>
<td>Fast tracking for succession</td>
</tr>
</tbody>
</table>

**Refining the Research Focus - Measurement**

In the literature, little has been identified that is written specifically about the measurement of innovation in large service organisations. The majority of researchers cited in this literature review concentrate on explaining and exploring the nature of innovation, how it works and what may stop it from occurring in large organisations. This research has focussed on the measurement of innovation in large service organisations.

**Defining and Measuring Organisational Performance**

The definition of performance with respect to an organisation appears to differ depending on the organisation’s corporate, business and functional goals. This in turn, affects how performance is measured. When measuring the performance of an organisation, it is important to understand the multi-dimensional nature of the performance construct (Lumpkin and Dess 1996). There are predefined methods for measuring the performance of an organisation. The difficulty in relying on these measures is that these different performance measures can be in conflict (Lumpkin and Dess 1996). An example could be the way that accounting measures research and development compared with the number of technologies commercialised.
Due to this multi-variate nature of measurement, Lumpkin and Dess (1996) recommend using multiple performance measures. They believe that measuring all of sales growth, market share, profitability, overall performance and stakeholder satisfaction, will provide a more accurate view of organisational performance. Throughout the “entrepreneurial orientation” (those organisations that claim to be entrepreneurial) literature, the performance construct is operationalised consistently. Covin and Slevin (1989) use financial measures (sales level, sales growth rate, cash flow, return on shareholder equity, gross profit margin, net profit from operations, profit to sales ratio, return on investment and ability to fund business growth) to represent performance. Wiklund (1999) and Lumpkin and Dess (2001) also measure performance from both a growth and financial perspective.

The Development of Innovation Measures

Researchers have contributed to the development of a set of measures which have predominantly concentrated on tangible products, devices, instruments and intellectual property. The review of literature has identified the development of a series of measures that is well understood by organisations that produce tangible products. Linder (2006) gives a succinct historical perspective on the development of innovation measurement from the 1960s to the present day and this is summarised in the following table that demonstrates the evolution of measuring innovation and the increasing sophistication of those measures:

Table 7 The Development of Innovation Measures

A summary of Linder’s (2006) development of measures.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>R&amp;D expend</td>
<td>Patents</td>
<td>Innovation surveys</td>
<td>Knowledge</td>
</tr>
<tr>
<td>S&amp;T Personnel</td>
<td>Publications</td>
<td>Indexing</td>
<td>Intangibles</td>
</tr>
<tr>
<td>Capital</td>
<td>Products</td>
<td>Benchmarking</td>
<td>Networks</td>
</tr>
<tr>
<td>Technology Intensity</td>
<td>Quality Change</td>
<td>innovation capacity</td>
<td>Demand</td>
</tr>
</tbody>
</table>
<pre><code>                                                                                       |                                               | Clusters                                        |
                                                                                       |                                               | Management techniques                          |
                                                                                       |                                               | Risk/return                                     |
                                                                                       |                                               | System dynamics                                 |
</code></pre>
Linder (2006) highlights that fourth generation metrics of the knowledge based networked economy, remain ad hoc and are thus, of limited analytical value and that there is a need for improved metrics through a concerted, coordinated and internationally visible effort. Walker et al. (2002) highlight an example of confusion with the measurement of service innovation. In Great Britain, under the conservative administration in 1983, a set of measures was established to measure the effectiveness or otherwise of the efficiencies of government. With the change of political party to the Labour administration in 1985, the theme continued but promoted innovation through managerial and bureaucratic approaches, notably “best value” in local government and through the work of the Cabinet Office. Prabhu et al. (2002) also note that this period saw private and not-for-profit organisations entering into the public sector. The subsequent market and customer orientation lead to public sector development of business practices that focused on reducing waste, cost and developing innovation service design and delivery. From 1990 - 2000 the public sector in Great Britain adopted what it called “business excellence thinking” in related human resource practices, leadership, service delivery and quality measures. “Best value” in local government was the result of part of this process. In Australia, local governments saw the opportunity of what appeared to be a success and embraced “best value” in 2001.

Milbergs et al. (2006) discuss the use of old paradigms of an industrial economy and for the most part measures inputs to innovation, which includes research and development expenditures, education expenditures and overall capital investment. There is also a focus on measuring intermediate outputs that include publications, patents and workforce size and experience. The notion of intermediate outputs is problematic, as the Australian Federal Government measures and subsequently rewards or “punishes” government, university and private research organisations (the granting or withdrawal of funds), based solely on these outputs as they are finite measures.

Milbergs et al. (2006) discuss product innovation as being viewed linearly starting with fundamental research and proceeding successively to applied research, development, prototyping, pilot production, market entry and continuing through to the diffusion of new products and production processes. There has been significant progress in delineating the multiplicity of resources required for innovation, the non-linearity of the innovation process, the different and variegated meaning of innovation in service sectors and the innovators’ connection to the dependence (and) on the global competitive market forces and their immediate socio-economic and institutional environment. This view adds to the complexity to service innovation and one could substitute “non-linearity of the innovation processes” for the description “normal human behaviour.
in a turbulent and chaotic market place”. The profitable nature of innovation is highlighted by Linder (2006) who, when comparing research and development investment to that of innovation investment, concluded that the former has increased; this is not the same as innovation, but is measurable with returns of 25 to 30%” Lev (2004). Linder’s comment that it is “not the same as, but is measurable”, is confusing.

Linder further notes that, “companies that own widely cited patents and that are quick to commercialise those patents out-perform stock market averages by 1000 percent over 10 years” Breitman (2001). In seven industries that generate large numbers of patents, a patent cited 14 times by other patents is worth 100 times more, on average, than a patent cited only 8 times. Harhoff et al. (1999) discuss a possible reason for that industry being focused on patents and that the Australian government (government being the most dominant force in either a free or a controlled market) rewards this focus either through taxation advantages or direct grants. The literature review has not identified any discussion about measuring intellectual property as it relates to service innovation.

Each new product introduction announced in the Wall Street Journal between 1975 and 1984, resulted in an average return to shareholders of $115.7 million beyond the industry norm (in 2005 dollars) Chaney et al. (1991) and stakeholder returns. Over the past decade, research in different industries has shown that effective innovation – at least to the extent it can be measured – is correlated with better total returns to shareholders and thus to high performance. The development of a further research question is emerging here as to what it means to have effective innovation?

Technology innovation (with related capital and human investment) contributes nearly half of the nation’s productivity, economic growth and standard of living (in a US context). Chaney et al.(1991) continue by discussing the strategic importance of innovation metrics and their ability to aid public understanding and to assist policymakers to benchmark the nation’s innovation performance thereby improving policymaking and business strategies. A case is clearly made for further research that will assist policy makers in the areas of “service” based organisational growth measurement.
Challenges with the Development of Innovation Measures

Why Measure?

Moullin (2004) notes that a “well designed performance measurement system is vital for ensuring that organisations deliver cost-effective, high-quality services that meet the needs of service users. Without feedback on all important aspects and a system for ensuring that the organisation acts on that information, managers are struggling in the dark.” (p.111)

Business Week Online’s Metrics Madness (2006) points out that “the buzz around innovation is expanding to monstrous proportions. Nowhere is this frenzy more evident than in the pell-mell rush to metrics. Managers were obsessed about measuring quality and cost, they now focus on measuring the innovation process. Metrics can improve a company’s innovation ‘hit rate’ and help companies make the right choice, faster with less risk of failure”. (p.1) This statement agrees with the notion (and outcomes of this research) that a simple set of measures will provide further strength to evidence based management.

Shifts in Economies and Economic Measures

A popular theme to emerge in the literature review is the highlighting of the shift in economic frameworks from an industrial product based economy, to a knowledge based economy. The literature highlights that this signifies an immense change in operating technologies that we, at present, simply do not have the capacity to track and measure adequately.

Milbergs et al. (2006) suggest that the drive for improved indicators stems from the understanding that the currently available measurements largely reflect the industrial era and, less so, the developing knowledge economy. The current measures sit with, and are more indicative of, products rather than ideas and processes. Organisations are searching for a single measure and one has yet to appear, that is, a single measure that is adequate to capture innovation’s multiplicity of features. There appears to be a requirement for the measurement and, thus, improved management of services, which include the many levels of government, non government organisations and the professions (medical, legal, engineering, accounting to name a few).
Measurement Shortcomings

Although the literature reviewed comments enthusiastically on the need for re-engineered innovation metrics, it also warns about the development of poorly suited metrics or metrics that offer an incomplete or inadequate picture.

Shapiro (2006) states, “you cannot measure innovation using a single, universal yardstick, although many have been proposed. The essence of innovation is novelty, so it stands to reason that some innovation will elude any pre-set measuring scheme. It may even be that the most effective innovation is that which so changes the scheme of things that it makes the old measuring scheme obsolete!” (pp.42-51) This statement seems to begin to confuse the terms, invention and innovation where perhaps what was being referred to, was creativity?

Business Week Online’s Metrics Madness (2006), points out that too many measures can lead to confusion, dysfunction and less innovation, not more. There appear to be common mistakes reoccurring; such as too many metrics, measuring the wrong things, misaligning metrics within organisations and counting what can be counted, not what counts. Another problem is that looking solely at the number of ideas in a pipeline without measuring successful outcomes in terms of revenue and margins will not help. Walker et al. (2002), note the emerging phenomenon of innovation measurement in public organisations but highlight the absence of “a tradition of innovation research in the European context, there is no defined or generally accepted measurement approach.” (pp.201-214) This emphasises the ongoing need by leaders and managers for a set of tools to assist them to assess their effort in the processes of innovation.

When managers are faced with incomplete measures, Linder (2006) points out that leaders and managers often simply add more measures. While tracking a larger number of incomplete measures may make for a broader perspective, it does not necessarily improve insight into how to make innovation valuable.

Rae (2006) notes that many organisations rely heavily on measures to gauge various levels of absolute and relative health. Growth rates, margin improvements, return on investment, liquidity measures and many others are universal tools - a language in and of themselves that allow business people to communicate with each other in meaningful ways. Grounded in objectivity, metrics make business people feel secure. A paradox emerges in that at a time when the business world uses such
sophisticated tools to measure just about everything, this same type of universal yardstick has yet to emerge for innovation. The pressure on managers (particularly middle managers) to achieve targets, maintain an industry benchmark and achieve growth, year on year, will be reduced with a set of innovation metrics that are repeatable, measurable and achievable.

The Benefits of Measurement

The literature review identifies five perspectives of the benefits of measuring innovation:

(1) An improvement in the standard of living by achieving economic growth. (Shapiro 2006), notes “companies are not interested in innovation for its own sake, what they want is profitable growth - an effective balance between a commitment to existing customers and businesses and an appropriate investment in renewal.” (pp.42-51)

(2) The creating of a competitive advantage with innovation measures is seen “as the most important strategic and operational levers available to managers for creating competitive advantage regardless of industry sector” (Linder 2006) The article continues by saying “a review of current management practices demonstrates how innovation and cultural change are necessary if organisations are to survive in today’s competitive marketplace.” (pp.38-44)

(3) Continuous improvement and an “organisation’s ability to continually renew itself”. (Rae 2006, p.28)

(4) Accountability in a government context with a “growing expectation by governments around the globe that public service organisations should and will use innovation to enhance performance with governments encouraging public service organisations to innovation.” (Boston Consulting Group 2006)

(5) Stein of Kaiser Associates notes that, “a company’s ability to measure results of innovation, is critical to assisting and achieving sustained growth and profitability. It is also critical for getting the resources it needs to get the job done. Measurement helps identify what’s working best, in terms of growing the business and in putting money behind those projects and processes that have proven effective.” (Rae 2006, p.28)
It appears that the above researchers acknowledge the need for innovation; all want (some demand) measures and that the measurement of innovation appears to be complex.

The outcomes of this research plan suggest that it is the combination of the framework created for the measurement of innovation, supported by the financial resources allocated and the organisation’s leadership, which will reduce confusion and aid in the simplification of the measurement processes.

**Innovation Metrics Private vs. Public Sector**

Walker et al. (2002), highlight that there is difficulty comparing private and public sector metrics as “a direct transfer of approaches to measurement of innovative activity is not always practical for public services.” (pp.201-214) This could mean that Walker has not had the opportunity to measure services in both sectors.

Walker et al. continue to discuss issues relating to the fundamental differences between private and public sector and speak of the subsequent complications present when it comes to developing innovation metrics for the public, services-oriented sector. Walker et al. note that the challenges include; (1) private sector measures favour levels of input in the innovation development process (e.g. measures of R&D innovation) as opposed to process and output measures, directly relevant to the public, service sector, (2) the private sector holds that patents in themselves are innovative, a tenant that is questionable on the basis that patents represent inventiveness of creativity and not innovation, (3) patents in themselves are highly product focused and discretionary; and (4) the private sector has relied on surveys in the assessing the innovativeness of organisations or the rate of adoption of innovations (Rogers (1995); Wolfe (1994).

Questionnaire surveys have their own methodological problems and are often a burden to organisations. The claims of Walker’s et al. (2002) are again indicative of metrics being used. The claims are paradoxical, as they simply cannot be applied from product to process based organisations or from private to public organisations; it is not unlike trying to compare apples to oranges.
The Political Nature of Government Organisations and Metrics

It is not surprising that in the public service sector, measures of innovation have political implications in “the way in which public service organisations can use innovation to maintain organisational legitimacy” (Walker et al. 2002). “Innovation may be a form of political “circus” by which a public agency seeks to convince the public of its progressive and presumably efficient mode of operation” (Feller 1981, p.14). Walker et al. (2000) does qualify this point by noting, “The subjective nature of innovation does not undermine the importance of developing methodologies that allow the nature of public service innovation to be explored.” (p.211)

The Classification of Innovation

The literature review has identified that there is a series of methods to classify innovation. Walker et al. (2002) sees the classification of innovation as an important step in the measurement process as “innovations by nature have a range of different attributes making them hard to measure in an overarching framework.” Rae (2006) discusses issues around the classification of innovation metrics when highlighting Stein of Kaiser Associates, who state, “Most often, clients come to us looking for a result driven scorecard that can measure the impact of innovation year-over-year, relative to peers and across their businesses.” (p.28)

The major problem with many complete solutions is that they mix a set of inputs, intermediaries, and qualitative factors like research and development and the number of patents filed and level of innovation culture in the enterprise. All of this data goes into a black box and out comes a score. At best, these items are potential indicators of performance. At worst, these composite scores are distractions. The first classification framework is the value chain model, (Porter 1985) of input, process and output. In the investigation of innovation measures, this framework is enlightening in its ability to classify existing metrics into a three-step process of innovation creation. The Boston Consulting Group (2006) cites the commonly used metrics using this classification in the following table.
Table 8 Classification of Metrics

<table>
<thead>
<tr>
<th>Input Metrics</th>
<th>Process Metrics</th>
<th>Output Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating expenses</td>
<td>Cycle times through specific parts of the process; and,</td>
<td>Number of new products launched.</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>Difference between the initial and expected financial value of an idea and its ultimate realised value.</td>
<td>Changes in market share.</td>
</tr>
<tr>
<td>Number of full time employees</td>
<td></td>
<td>Incremental sales and profit growth.</td>
</tr>
<tr>
<td>dedicated to specific functions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second classification framework highlighted by Walker et al. (2002), showcases the work of Wolfe (1994), who identifies 17 attributes that can be used in the process of classifying and understanding innovation.

A summary of these attributes are the following six:

1. Adaptability
2. Centrality
3. Organisation focus
4. Pervasiveness
5. Radicalness
6. Uncertainty

The third classification approach proposed by Walker et al. (2002) is the work of Osborne (1998) where he categorises the type of innovation as: (1) developmental or incremental innovation Bessant (1998) where the services of an organisation to its existing user group are modified or improved, (2) evolutionary innovation where the change involves providing a new service to the existing user group of an organisation; (3) expansionary innovation where the change involves offering an existing service of the organisation to a new user group and (4) total innovation where there is a discontinuous change that is new to the organisation and serves a new user group.

The classification of the innovation is challenging. Coombs’ et al. (1996) research continues this discussion that existing innovation measures are product focused which, can be problematic in the
public services sector where many innovations are service based and where services are consumed at the point of production.

The review of literature notes the work of Osborne (1998), who proposes a two dimensional typology of innovation in response to the traditional methods. Osborne focuses on the established model of separating into product and processes in relation to the organisation’s lifecycle. His model enables a way of viewing innovation from an organisational lifecycle perspective as a means to measure innovation (new organisations are seen to produce more product innovations while older, mature organisations are seen to produce more process innovations to enhance the technical efficiency of previous product innovations). Osborne (1998), however, sees this perspective as a typology maintaining the product and process separation, allowing for product or process innovation to occur but at any state in the lifecycle of an organisation.

**Different Types of Innovation Measures**

In the literature review, it was evident that:

(1) There was not an overarching framework that encompassed both product and service innovation metrics
(2) There were established innovation metrics for the industrial sector however, there was contention within this field as to which metrics to use
(3) Traditional product innovation metrics with its focus on input and output innovation measurements did not translate easily or adequately to the service sector
(4) Service industries have expressed a need to work collaboratively to develop a series of service innovation metrics that were able to provide a benchmark for departments, industries and internationally.

The above four points clearly support the need in undertaking further research in this area. This contention is supported by the apparent search in the market place by managers and leaders for “a one size fits all” solution. It appears that there is no one answer. The on-going challenge is the development of a simple set of metrics that can be used as a basis for measurement of culture, politics, size, lifecycle and position.
In relation to specific measurement systems of innovation in its own right, the following frameworks have been identified: (1) the value chain model (input, process and output), (2) 3M’s proportion of sales resulting from products introduced in the last three years, profit, growth and profitable growth measures, (3) the profitable growth scale (relative to peers in the industry), (4) applying the literature-based innovation output indicator and (5) the synthesis of two common measures.

**The Value Chain Model**

The most traditional measurement classification and design scheme for innovation measurement is the value chain model (Porter 1985). This model is universally accepted in the industrial sector, in relation to innovation metrics, as well as the wider management environment.

The following table summarises the different types of metrics identified in the literature review:

**Table 9 Measurement Summary**

<table>
<thead>
<tr>
<th>Input Metrics</th>
<th>Process Metrics</th>
<th>Output Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Operating expenses</td>
<td>1. Cycle times through specific parts of the process; and,</td>
<td>1. Number of new products launched,</td>
</tr>
<tr>
<td>2. Capital expenditure</td>
<td>2. Difference between the initial and expected financial value of an idea and</td>
<td>2. Changes in market share,</td>
</tr>
<tr>
<td>3. Number of full time employees dedicated to</td>
<td>its ultimate realised value.</td>
<td>3. Incremental sales and profit growth</td>
</tr>
<tr>
<td>specific functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recommended inputs</strong></td>
<td><strong>Recommended processes</strong></td>
<td><strong>Recommended outputs</strong></td>
</tr>
<tr>
<td>Financial resources being committed,</td>
<td>Resources expended per individual project and on average,</td>
<td>Number of new products or services launched,</td>
</tr>
<tr>
<td>People,</td>
<td>Cycle times for the entire process and specific parts,</td>
<td>Incremental gains in revenues and profits,</td>
</tr>
<tr>
<td>The number of ideas generated and expected payback for each</td>
<td></td>
<td>Cannibalisation of existing product</td>
</tr>
</tbody>
</table>

58
and
Key capabilities.

<table>
<thead>
<tr>
<th>Number of ideas that are moving from one stage of the process to the next and Difference between the initial expected value of an idea and the actual realised value.</th>
<th>sales by new products and ROI of innovation activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources being committed. People. The number of ideas generated and expected payback for each and Key capabilities</td>
<td>Resources expended per individual project and on average, Cycle times for the entire process and specific parts, Number of ideas that are moving from one stage of the process to the next and Difference between the initial expected value of an idea and the actual realised value.</td>
</tr>
</tbody>
</table>


The Boston Consulting Group (2006) points out that current output metrics fail to track the post launch impact of their support activities and highlights the most popular metrics overall being:

- Time to market,
- New product sales,
- Return on investment,
- Total funds invested in growth projects,
Comparison of actual and projected performance,
Allocation of investment across projects and
Number of projects that meet planned targets.

Metrics that have the most influence on employee behaviour included new product sales and time to market.

**3M’s Proportion of Sales Resulting From Products Introduced In the Last Three Years**

Linder (2006) states that 3M uses *The Proportion of Sales Resulting from Products Introduced in the Last Three Years*, as its primary innovation measurement.

Linder (2006, pp.38-44) supports the view that the measurement is necessary but there may be flaws. These flaws include: (1) the measures indicates sales, but not profits or investment required to create the products - if the target is profitable growth, the scorecard must include both returns and invested capital, (2) the measure looks only backwards, capturing the impact of past innovation - it doesn’t address current investments and whether or not they will pay off in the future, (3) the measure is self centred - to determine whether the organisation actually created value; we should ask whether the results put the organisation ahead or merely kept it on par with others in its industry and (4) the measure assumes that all the organisation’s value creating initiatives will somehow be reflected in product sales. This might be true for innovations in brand, distribution channels and pricing, but would not necessarily hold for innovations in financial structure, business model or even services.

**Profit, Growth and Profitable Growth Measures**

Linder’s (2006, p.43) investigation of 46 organisations, “revealed a wide variety of other measures that organisations are using to fill in the gaps. They included both process measures to track ideas, initiatives, people and pace as well as outcome measures to capture the impact of innovation”. The following table highlights the process, profit and growth measures examined.
Table 10 Process, Profit and Growth Measures

<table>
<thead>
<tr>
<th>Process measures</th>
<th>Captures profitability and investment</th>
<th>Forward-looking</th>
<th>Relative to peers</th>
<th>Encompasses all types of innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT business value index: the forecast business impact of an IT investment</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idea inventory: ideas developed and whether or not they were adopted</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Employee engagement: level of employee energy and commitment</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Resource allocation across risk categories</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Share of widely cited patents: company’s proportion of important patents</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Patent awards: patents granted to the organisations</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milestone hit rate</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed to market</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opinion leader sponsorship</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benchmark productivity</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Track record of individual innovators: sales and profits from products launched</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer uptake modelling: forecast of customer acceptance of products</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of wallet: company’s proportion of customer’s spending</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of bill of material: company’s share of customer’s component supply</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Win/loss analysis: share of sales compare to peers</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth in revenue</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Deals done: how many sales were closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Profitable growth measures

<table>
<thead>
<tr>
<th></th>
<th>Profit</th>
<th>Revenue</th>
<th>Future Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in per-customer profits</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth in enterprise profits</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory of innovation impacts: record of value created by innovation</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Social value created: societal outcomes resulting from the organisation’s work</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Margin premium: ability to increase revenue at increasing margin percentages</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

The above table appears to neatly provide what organisations may think are the “answers”, however, organisations may follow this natural tendency for trying to satisfy themselves by fitting into the boxes that *they* think is the “best” fit for their organisation. Conveniently, the fourth column, “encompasses all types of innovation” seems to be a “catch all”.

**The Profitable Growth Scale (relative to peers in the industry)**

Linder (2006) proposes a measurement system constructed by using the profitable growth scale of companies to assess their level and success of innovation. This measure is based on three publicly available growth indictors:

1. Earnings
2. Revenue
3. Future value

The challenge with the third point is that in both product and service industries lifecycles are becoming compressed and therefore perhaps another metric could be considered – the number of lifecycle enhancements.

Linder (2006) notes, earnings growth and revenue growth are retrospective. While (Ballow et al. 2004) describe future value is the proportion of total shareholder return in a given period that is not accounted for by current operating results.
“All three indicators are divided by invested capital to normalize for company size and capture the capital required to produce profitable growth. On each of the three indicators, a company’s results are compared with the average for its industry, revealing the company’s positioning relative to its peers in terms of profitable growth” (Linder 2006, p.41).

“Frankly, companies are not interested in innovation for its own sake. What they want is profitable growth and effective balance between a commitment to existing customers and businesses and an appropriate investment in renewal. The profitable-growth scale helps managers strike that balance. It’s simple to understand, looks both backward and forward and compares a company to its peers.” Leaders and managers have in other words said, “We need to achieve our targets with the least effort, I don’t care how” (Linder (2006, p.41). Caveats include - all external measures make implicit assumptions and treat industries as homogeneous, investors as prescient and the quality of publicly report results as identical (Linder 2006).

Applying the Literature-Based Innovation Output Indicator

Walker et al. (2002) apply the literature-based innovation output indicator model to the housing industry in the UK. The information collected follows Coombs’ et al. (1996) method of classifying innovation in the sector. The subsequent innovation measurements collect the data and then apply it against the number of housing associations giving both a figure and a percentage.

The innovation measurements are:

1. Type of innovation (expansionary, evolutionary, developmental)
2. Geographical origin of innovation (domestic, international)
3. Partnership origin of innovation (alone, partnership, partnership with other organisations)
4. Distribution of innovations by stock size (>5000, 250 – 5000, <250)
5. Distribution of innovations by staff
6. Distribution of innovations by region
7. Innovation type by partnership arrangement
8. Innovation type by number of staff
9. Innovation type by housing association stock size
10. Innovation type by region
Challenges related to the above system include:

1. The sources of literature used in studies would need to be fully described to ensure clarity about the use of reported innovation and to recognise the conspicuous use of innovation by public service organisations and
2. This approach is not a substitute for primary research data on public service innovation - it can complement or supplement it to provide modest databases.

Coombs et al. (1996) does however suggest that there are times when public service organisations are increasing research to provide an alternative approach to data collection to build pictures of innovation activity in sectors. The technique is described as the nature of innovation in a sector, and not just describes the innovations it also builds upon and develops work in the field. A benefit of this approach includes the extending this approach to other areas of public services to establish wider databases, longitudinal studies of innovation and to make comparison between different sectors. There could be another benefit of the establishment of such data sets as this would also make it possible to begin to explore the relationship between innovation and performance in public service organisations allowing the tracking of changes in the nature of innovations developed by public service organisations and the context within which they work” (Walker et al. 2002).

**Synthesis of Two Common Measures**

Shapiro (2006) makes some insightful observations in the development of his innovation metrics framework. He notes that, “because innovation can be achieved in many ways, measuring innovativeness is difficult to do well with a single measure.” Shapiro proposes the pairing of a ‘fixed’ with a ‘variable’ measure. The measures he highlights are:

- Revenue from New Products and
- Revenue from New Platforms.

He notes that, “the former reveals much about the overall rate of change and the latter about the quality of ‘newness’ of the shift in revenue. The former focuses on product and the latter on any kind of relevant platform that leads to advantage through innovation; product, technology, manufacturing, operational, or business. By considering the accounting based new product measure
in concert with the more flexible measure of new platforms, a company can explore meaningfully the quality of its innovation and how sustainable is its innovativeness”.(p.50)

Shapiro highlights the shortcomings of Percent of Revenue from New Products as being:

1. How new is new?
2. How long before new is old?
3. What kind of innovation is being measured?

Percent Revenue from New Platforms is seen by Shapiro as being able to be “applied to innovation of many sorts. It includes technical and product innovation but it can with equal ease be applied to other sorts of innovation.”(p.50)

Figure 1 – Comparing New Product and New Platform Revenue

Shapiro (2006) notes the issues involved with each quadrant and the implications in regards to innovation as:

Quadrant 1 - It is unclear how the organisation will renew itself as its products age. Such organisations are often the product of repeated cycles of cost cutting and operate in cost competitive environments. Survivalist tactics that dull the ability to innovate makes these organisations particularly vulnerable and usually ill equipped or react, when challenged by innovation.
Quadrant 2 - Vulnerability is the theme in this quadrant and the need to search ceaselessly for platforms (technology or business idea based) that can change the game. If the disruptor is a sustaining one, in Christensen’s et al. (1994) terms, these organisations should prosper. It is complacency and the inability to shift from one platform to the next that threatens organisations in this quadrant.

Quadrant 3 - The questions that arise have more to do with the successful exploitation of the innovation. Is this organisation doing enough to take advantage of the innovation? How does its rate of market penetration compare to that of its in-kind competitors? Does it have the capital required to expand especially if the older products require sustaining investment? Can it successfully grow the new platform based business side by side with the older one or is a spin off or joint venture more likely to succeed?

Quadrant 4 - Often this pattern reflects what some call “cannibalisation of the older products based on the older platforms. Despite the pejorative connotations of the term, such cannibalisation is healthy and nutritious. To replace products based on an obsolescent platform with new and vibrant sales is to show the capacity for renewal that marks a company as enduringly competitive” (Shapiro 2006, p.47).

**Conclusion**

The review of the literature has evolved from many researchers’ contributing their understanding of and explanation of the terms creativity, innovation and enterprise. The discussion of how the terms are applied has evolved from organisations that produce tangible goods to those large organisations that provide services. The literature has highlighted that the beginning of a set of measures that will assist managers and leaders to develop and manage their respective strategies for growth. The key arguments in the literature review concerning the measurement of innovation in large service organisations include:

1. Storey and Kelly (2001) and Sundbo (1997) discuss the need for the measurement of service innovation, as it is required to contribute to the successful development of strategy
2. Alam (2002) also recognises this need and includes strategic planning as the first step in his 10-step process
(3) Stevens and Dimitriadis (2005) form a generic service innovation model highlighting that measurement is a requirement at various stages of their model.

(4) Kaplan and Norton (cited in Storey and Kelly 2001) suggest four measurement perspectives: financial, customer, internal measures and learning and growth measures.

(5) Kuckzmarski (2000) provides a guide to managing the measurement of innovation where he advocates appointing an innovation investment measurement team to identify suitable metrics and measurement periods and to develop a process for collecting the data that works for the organisation.

(6) Shapiro (2006) suggests measuring the levels of innovation is difficult to do well with a single measure as innovation outputs can be realised in many different ways for example, revenue from new products and revenue from new platforms.

While the literature emphasises the need for further investigation into ways of identifying what should be and what is easily measured in large service organisations to assist managers and leaders grow their organisations, it still does not reveal a simple set of measures. It was this researcher’s observation in 2001 that suggested there was an opportunity to investigate the measuring of innovation in large service organisations in a way that is repeatable, achievable and measurable.
Chapter Three

Methodology

Introduction

The selection of a research methodology that would assist the host organisations to implement an Innovation Program was determined over a series of meetings. In those meetings the organisations strategic directions were discussed extensively. Further discussion ensued of what they understood the terms creativity, innovation and entrepreneurship to mean and what they were hoping to achieve from their Innovation Programs. Initially, there was some confusion among the senior managers and leaders of both host organisations about the meaning of the terms and, in particular, what their people in their organisations thought they meant. Over a period of several weeks, working terms for creativity, innovation and entrepreneurship evolved. It is interesting to note that the meanings of the terms underpinning the two Innovation Programs (each of three years) were not in alignment with the explanations of these terms as identified and discussed in the literature review. In considering the Innovation Programs, the host organisations held the view that for their respective organisations to embrace an innovation program, very simple working explanations of the key terms were required so that staff, management and customers would understand what each organisation was aiming to achieve.

In considering the use of action research as the preferred methodology for this research, initially both host organisations were engaged and participative during formative discussions as they considered organisational learning a key to sustaining competitive advantage. It was decided by the organisations that for enduring change to occur, action research would be the preferred methodology as the host organisations were focussed on achieving results through methodologies that could be systematically transferred to other parts of their respective operations. At the conclusion of these discussions key performance indications for the facilitator were agreed upon. They included:

(1) The facilitator was able (through the leadership groups) to intervene when real or imagined blockages to organisational change occurred.

(2) The facilitator facilitated the internal communications of the respective leadership groups.

(3) The facilitator reported regularly to the leadership groups if changes were required to maintain the momentum of the innovation program; these changes were managed by the leadership groups.
These three requirements quickly reduced the selection of an appropriate research methodology to that of action research as those methodologies mentioned above could not accommodate the flexibility required to produce measurable change as desired by the host organisations.

Both organisations chose the following meanings for the terms creativity, innovation and entrepreneurship:

**Creativity:** The act of connecting ideas or concepts  
**Invention:** Something completely new  
**Innovation:** The ability to make something happen that is achievable, measurable and repeatable  
**Entrepreneurship:** To demonstrate the behaviours of creativity and innovation consistently.

The host organisations were also interested in the action research methodology and began their own research into how they could use the methodology. Initially it was considered by both host organisations that once an Innovation Program was developed, the organisation would conform to the programs requirements. They realised that to introduce change, an assessment of the current culture, systems and procedures would need to be undertaken. In fact, in coming to this realisation they were already entering the first phase of action research: the diagnosis. In considering the use of action research as the methodology for the research plan, both the host organisations were engaged and participative during these discussions, as they considered organisational learning as a key to sustaining competitive advantage.

**Research Methodology Selection**

There have been nine classifications of research method identified by Isaac and Michael (1982); they include: historical, descriptive, developmental, case or field, correlational, ex post facto, true experimental, quasi-experimental, and action research. The methodology chosen for this research plan is action research.

The action research methodology paradigm chosen to test the measurement of innovation in large service organisations is then framed by the key areas of action research that are; the planning phase of innovation programs and subsequent action, results and reflection.
The Evolution of Action Research Methodology

The action research methodology is described as a continuous cycle of planning, action and review of that action. There are review cycles within this process where prior experiences and data is reviewed and often reconsidered. Dick (1992) suggests two aims of action research: (a) to bring about some form of change and (b) to increase the knowledge of the researcher, research organisation or community. Pridaux (1990, pp. 56-68) highlights five outcomes of action research:

(1) a change in the situation, practice or behaviour of the client or “other”,
(2) improved understanding of the client’s situation or behaviour for both the client and researcher / change agent,
(3) development in the competence and practice of the researcher / change agent,
(4) additions to the store of knowledge and theory available to the wider professional community and,
(5) improved understanding of the processes through which individuals, groups, organisations or larger social systems change.

Summarising Cherry (1999, p.12-29), outlines Susman and Everard’s (1978) systematic assessment of the scientific merits of action research. Judged against the criteria of positivist science, action research cannot offer scientific explanation. However judged more broadly, it has the capacity to generate knowledge for solving problems which individuals and organisations face suggesting that action research can be useful when:

(1) the subject of the research is capable of self reflection (one or more people)
(2) the reason for undertaking the action research intervention is to solve a problem which cannot be solved with the active involvement of the client
(3) the research question or purpose cannot be teased out without the co-operation of the “other”
(4) broad or fuzzy research questions are to be developed and tackled in a very particular context
(5) a wide range of factors are at play in the context of a dynamic relationship between actors in a complex “real life” situation
(6) the central issues or tasks can only be fully defined by sustained exposure to and involvement with, the “other” over a longer period of time
current experience is the most effective way of creating possibilities and opportunities for change.

The practitioner needs a methodology that combines rigour with responsiveness.

The practitioner needs to continuously tap into and extend his or her own experience and knowledge in order to help effect change in the issue or problem being addressed.

The knowledge and skills of both research and “other” will be challenged and extended by the process.

Cherry (1999, p.12-29) discusses that the originators of action research, Moreno and Lewin of the Tavistock Institute of Human Relations, held to the central notion of the improvement and understanding, not only of the organisation, but of the practice itself. This notion appears to translate directly to organisations that continue to grow and prosper – they appear to have the ability to identify and grasp opportunities for growth. Is this enterprising behaviour, something that occurs naturally or perhaps a set of skills that have resulted from training and leadership? If so, this could then be compared to reflection and action. Schon (1987) when discussing experienced based learning describes when individuals in organisations reflected on their actions and the effects of those actions. This reflection can translate into a change of behaviour at an individual and organisational level.

**Selection of an Action Research Paradigm**

A question, of which paradigm for action research should be used now needs to be discussed as it will affect the research approach taken to address the question of how to measure innovation in large service organisations. The interpretive paradigm has been chosen for the purposes of this research plan to investigate the measurement of innovation in large service organisations. Within this paradigm, there is a hierarchical progression of development; the first ‘level’ being descriptive, the second, descriptive and interpretative and the third level a combination of descriptive, interpretative and action. This hierarchical progression of development can be called “action research” (Cherry 1999).

**Action Research** – ‘*The ability to produce useful knowledge*’

The interpretative view when combining descriptive, interpretative and action, faces a further two issues:
(1) Does the approach generate knowledge or understanding to assist the organisation or others to take effective action? and,

(2) Does the approach generate knowledge or understanding that is useful to others outside the organisation in different situations?

How transferable is the knowledge or understanding? The ability to reproduce “results” is dependent on the researcher reflecting and learning to take stock of different organisations’ cultures, geography, economic position and competitive environment and, through this process, tailor the new knowledge and experiences gained to allow for these variables in new situations and organisations. Often the results of action learning research from one organisational program are transferred to a new organisation, assuming that cultures, leadership style and marketplace conditions are similar. This transfer (without adjustment or refinement for the new organisation), results in disappointment and unfulfilled expectations of new learned behaviours for both the researcher and the organisation as inherent variables are not taken into account.

Action Research Methodology

McGrath (1982, p.128) describes researchers as attempting to maximise (a) ‘generalizability’, with respect to populations (b) ‘precision’, in the control and measurement of variables and (c) ‘realism’, for the participants, of the context within which behaviours are observed. The challenge for the researcher is that by pursuing the strength of one of the above, a weakness in the research may be presented by overlooking other elements of this paradigm. An example is where a researcher is trying to measure a set of variables in a controlled environment, such as a research laboratory. This form of research is often weak in terms of realism and generalizability as for example, an in-field survey may suffer from imprecision and generalizability.

The development of a research methodology to endeavour to address the three challenges of precision, realism and generalizability, presents in the form of an action research program. The test of precision is answered by using a simplified questionnaire containing a set of questions that would not vary between sample populations (Innovation Program participants). The test of realism is addressed with these participants responding to changes in their direct operating environment, as the changes occurred. The test of generalizability is satisfied as the two host organisations used similar action research methodologies and the Innovation Program results appear to be consistent and
repeatable. Further, when the Innovation Program methodology has been applied to other large service organisations, the results again are consistent and repeatable thus passing the generalizability test.

The selection of action research as a research methodology was also driven by the number and geographic separation of the stakeholders, the demands of commercial organisations operating within highly competitive markets and the added internal demands on staff, of management imposing financial hurdles that were often seen by the staff concerned as unrealistic. In particular, the involvement of many members of an organisation has the potential to influence the operations of that organisation. This involvement could also influence the way participants could look at new ways of doing, processing or thinking. Action research is one research methodology that can often involve shared learning by the participants. This shared communication of the organisational learning is mutually beneficial when individuals face pressures or uncertainties. Participants can then draw on that shared experience to employ appropriate actions and therefore offset the pressures that may be applied by management.

The selection of action research as a basis for examining innovation in large service organisations is primarily aimed at establishing a method of maintaining competitive advantage. The results from the research and the action research program cycles, aim to give the host organisations valuable information to maintain their current market place leadership positions, both nationally and internationally.

Lewin’s (1942) work on action research incorporates a research cycle where the findings of the research become the basis for new actions for further research and that of the host organisations. The host organisation’s participation in this research (rather than being observed from a distance and absorbing the measurement of innovation practices and systems in itself), may in this way, become an innovative engine for change rather than prescriptive advice residing with one or two individuals within that organisation.

A review of the action research literature indicates that Lewin (1943) developed a framework that involved both the organisation and researcher, achieving two outcomes, which were new knowledge and solving a specific problem. Further research has led to different approaches to action research be developed and used. These different areas included participatory action research, developed by
Whyte (1991), who specifically examined the role of power and of those who did not have power in organisations to effect change.

The above views of action research being a research cycle, is also supported by Reason and Marshall (1987) who maintain the notion that research outcomes are for all involved in the action research cycle. This notion is that there are two participants. The first participants are the research subjects who try to generalise the learning’s and place it within their organisational context and then try to reach outcomes. The second participants are the researchers, who are constantly trying to achieve a balance of relevance and timeliness.

Revans (1998), developed action learning by building on and extending prior action learning research (see above). Revans’ research provided a simple list of topics relevant to the organisation and the participants chose a topic, examined it, took action and then reflected on their actions and outcomes. ‘Action science’ evolved from the work of Agryris (1990) where the participants were tested for the creation of organisational defensiveness, using a series of cognitive tests to determine whether participants create environments that enable change.

‘Developmental action inquiry’ has evolved from work done by Torbert (1987) where the relationships between the participant’s ego and their ability to analyse and lead an organisation were examined. ‘Co-operative inquiry’ was developed by Heron (1996) and further developed by Reason (1998) where the emphasis is on research, in consultation with the participants as opposed to the observation of participants. This method of inquiry is focused on the ability of the participants to reflect critically on their action / behaviour and their ability to form judgments as well as searching for differences between informed and uninformed reflection. ‘Clinical inquiry’ as described by Schon (1987) uses health and organisational professionals with specific skills such as clinical and counselling psychology, social work and organisational development. These specialists use a ‘scientific approach’ to build empirical data and test a clinical theoretical framework.

‘Appreciative inquiry’ was drawn from the work of Cooperrider (2000) who examined large systems that were working satisfactorily rather than those that were not working efficiently. ‘Learning history’ was developed by Kleiner and Roth (2000), where an organisation's history of actions, events and consequences were then presented to the organisation’s stakeholders. ‘Reflective practice’, as developed by Schon (1983), is primarily concerned with an individual’s reflection on his or her actions. ‘Evaluative inquiry’, as developed by Preskill and Toress (1999),
emphasises the evaluation and modification of standard or traditional valuation procedures and practices to assist an organisation to develop its ability to create a learning organisation.

A central theme of action research is to solve a problem and generate new knowledge. This focus differs from the traditional experimental sciences in terms of perceived academic rigour and is not the same as the traditional sciences; primarily the differences concern the use of qualitative research methodology and simplistic statistical analysis. Conversely, it could be argued that action research offers substantial tangible value, as it involves considerable effort and careful observation in examining the effects of human behaviour in organisational systems within turbulent markets and industries. Accordingly, action research contributes to both individual and organisational knowledge and this assists both the individual and organisation to be less reactive to marketplace dynamics.

The Action Research Cycle

The action research cycle has four fundamental milestones or action points: diagnosis, planning, action and evaluation (Lewin 1942). The steps are: (1) the diagnosis, which often involves describing what the issues are and the development of a focus for action; the diagnosis requires the careful articulation of a theoretical framework. If the diagnosis is not recorded accurately in this phase, when the next phase of diagnosis occurs in the following cycle, little can be compared and learned by the organisation. (2) The planning phase commences after the understanding and appreciation of the context in which the individual, organisation and marketplace are operating. It is in this phase that the first steps of the program or action are planned. (3) The action or implementation phase is when the plans are revealed and actioned in the organisation. (4) The evaluation / reflection phase investigates the outcomes of the actions, both intended and unintended. It is in this phase that the original diagnosis and subsequent action are deemed correct or incorrect and these determinations are what should be taken into the next action research cycle.

Challenges in Action Research Methodology

The first, of the four steps of action research: plan, action, results and reflect, is often not given sufficient time and/or resources by organisations and management. This is seen in management meetings where clarity of purpose is not established, resulting in a lack of clear direction and the inevitable loss of focus. The importance of this first step, planning; (the purpose of the research or
the general objective), is vital for effective action learning to occur. Lewin (1942) described the four steps of the continuing action the learning spiral. Without the first step of planning sufficiently committed to, the project will fail and the spiral cycle of action research will be cease.

A continuum of action research paradigms have evolved from Stringer’s (1999) straightforward, look, think and act, (one less step than Lewin’s spiral) to French and Bell’s (1999) complex approach, where multiple action research projects were designed, implemented and measured in a complex research framework of parallel action research projects.

Lewin (1942) described the necessary ‘pre-step’ in the contextual analysis as the identification of environmental and marketplace forces on the organisation and the organisation’s ability to match its internal strengths and weaknesses to those environmental forces. This element, is frequently not discussed and often dismissed by senior management, so equating the value with the project itself, rather than the value the project may bring to the organisation. If the purpose of action research is to solve a problem and contribute knowledge, then the relevant question should be, “does this action research contribute to our efforts to take this organisation to where we aspire?”

The reason for the selection of the above action research paradigm is that it forms the basis for the host organisations’ ability to maintain and build their sustainable competitive advantages with an Innovation Program that produced evidence supporting their strategic plans. The action research cycles deployed by both host organisations over the three-year research period, should be able to produce useful and transferable knowledge.

**The Action Research Process**

The action research cycle used with the host organisations, ServCo and EduCo was similar. At each of the four stages of the action research cycle, the facilitator worked with ServCo and EduCo leadership groups to:

1. Design and introduce the Innovation program to each host organisation,
2. Design support systems (coaches and supporters) for implementation phase,
3. Distribute, collect and analyse each Innovation Program upon completion and,
(4) Integrate the results of the surveys to either adjust or modify the Innovation Program for the next iteration.

Each activity in the action research cycle was planned to encourage innovation and enterprising behaviours:

- The Innovation Programs were based on introducing, by the facilitator, a set of tools to assist participants to generate, filter, select and implement opportunities for the growth of each host organisation,
- The Innovation Programs were implemented and support systems (coaches and supporters) were put in place,
- Surveys were distributed, collected and analysed by the facilitator immediately after each Innovation Program was completed and,
- The results of the survey analysis were then used to adjust or modify the Innovation Program steps and processes to change with the cultural changes occurring in both organisations. The Innovation Programs have the flexibility to work with organisational changes as they occur. These changes include new leadership, budget, new competitors and staff leaving and joining.

**Population and Sample**

The two host organisations participating in this research are located in Melbourne, Australia. ServCo (a national professional services organisation) and EduCo (a high profile educational institution) participated over a period of six years commencing in 2001 and concluding in 2005. In 2001, 2002 and 2003 ServCo was sampled, in 2004, 2005 and 2006, EduCo was sampled.

**Table 11 Sampling Schedule**

<table>
<thead>
<tr>
<th></th>
<th>Program 1</th>
<th>Program 2</th>
<th>Program 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServCo</td>
<td>2001</td>
<td>2002</td>
<td>2003</td>
</tr>
<tr>
<td>EduCo</td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
</tr>
</tbody>
</table>

The population sampled of the host organisation ServCo, comprised of men and woman who had recently joined the organisation. These men and women came from branch offices within Australia and were selected by management, based on their length of service in ServCo. The population
sampled in ServCo was 311 professionals. There were two other groups surveyed: a reference (support group) of 69 and a group of 49 coaches that provided additional support for the innovation program participants.

At EduCo, the leadership group selected those who were considered to have the potential to identify service opportunities and turn them into financial opportunities. In the case of EduCo, participants came from seven branches all located within one state of Australia. In this host organisation, the survey population was 45, which included participants and managers of EduCo.

**Survey Instrument**

The survey instrument was designed to capture five themes of innovation measurement in ServCo and EduCo. The five areas, to be captured were: (1) participants' individual experiences when challenged with creative and enterprising interventions, (2) the outcomes of the set objectives of creating an innovative service culture in ServCo and EduCo, (3) whether the program length and levels of intensity (with respect to achieving professional outcomes) was satisfactory, (4) the effectiveness of the tools and methodologies introduced to assist participants achieve the objectives of ServCo and EduCo and (5) how effective the level of support provided to participants was in achieving the goals of ServCo’s and EduCo’s Innovation Programs.

A six-point Likert scale of Strongly Agree, Agree, Slightly Agree, Disagree, Slightly Disagree and Strongly Disagree, was used and a mean score was derived from participant responses to each question. These scores were displayed as a percentage of responses. Taylor (1990), Rutherford (1994) and Odell (1995), when examining internal organisational venturing or intrapreneurship, have validated the use of this form of survey instrument.

**Data Collection and Procedures**

Participants were given the survey instrument the day after the completion of each Innovation Program and were expected to return them to centralised collection points in ServCo and EduCo within seven working days. The surveys were then collected for analysis and commentary. The culture of ServCo, a culture of compliance, resulted in a very high rate of return (95%). The survey return rate in EduCo was 83% and while lower than ServCo, this still provided a high enough response level to have significant meaning in this research program. Participants also understood
the need for timely responses that when analysed, they could assist each organisation maintain its competitive position in their chosen market place segments. The selection of the survey methodology (as opposed to interviewing a large number of participants) was efficient for ServCo and this research program in terms of time and money. The design of the survey instrument was checked with human resource directors of ServCo and EduCo. The range and type of questions, content validity, confidentiality and timeliness were also extensively discussed.

There was no individual identification coding, therefore participants could not be identified. The survey comprised of 26 questions including three questions that were open ended. Participants’ views were sought on: (1) what could be done to improve innovation and enterprising behaviour at ServCo and EduCo, (2) what did they feel about the program, and (3) feedback and comments about any aspect of the Innovation Program.

The questionnaires differed slightly between host organisations as each organisation sought information through the questionnaires that was relevant to its industry; these particular questions have been omitted from this research program. Pilot questionnaires were trialled in both host organisations to assist the respective management teams “fine tune” the questions asked of participants in the Innovation Programs. The Innovation Programs were conducted at slightly different times on each year due to organisational requirements. These differences in timing between each host organisation did not appear to influence the results.

**Analysis of Data**

The surveys were returned, the data was entered into a database and then the data was analysed using descriptive statistical procedures (SPSS). Means were used to show frequency because descriptive statistics allow a meaningful explanation of the results of a large number of responses efficiently (Gay 1992).

**Conclusion**

The methodology chosen for this research program is based on the foundations established by Lewin (1942) who highlighted the evolving spiral of plan, act, reflect and diagnose, as a method to produce useful knowledge. The host organisations clearly understood that they were planning for a three-year program that would allow for the action research based Innovation Programs to have the
time and the ability to shape their respective organisations. The action research cycle of (1) diagnose, (2) plan, (3) act and, (4) evaluate / reflect, was an integral part of the research methodology.

In addition to action research methodology embedding in the three-year Innovation Programs, the host organisations required that the knowledge developed and shared, was relevant to, and in context for, their organisations. Hitt, Ireland and Hoskisson (2003) describe a contextual model, PEST, which quickly assists organisations to step back from their market place. This process effectively creates a context for them to understand, appreciate and move from a reactive competitive posture, to one that is anticipative and proactive. Use of this model, within the action research processes, has enabled these requirements of the host organisations to be achieved and refined continually. The host organisations were specific about their reason for participating in this research program as being, “only if useful knowledge could be developed, captured and utilised”.

The environmental, market place, organisational and individual contexts have created the operational environment for the action research that has been undertaken, and will continue to be undertaken by both host organisations. The methodology of studying and understanding these contexts and the resulting action planning steps of diagnosis, planning, implementation and evaluation, have enabled the host organisations to gain a sense of clarity and purpose. This clarity and purpose gained, is in relation to the process of solving problems stemming from operating in the turbulent market place and how this process contributes to the organisational knowledge.
Chapter Four

Analysis of the Data

Introduction

The data, generated by a series of surveys that were completed by participants in the Innovation Programs over six-year period, is discussed within an action research framework. This framework consists of a four-step process; to diagnose, plan, act and reflect / evaluate. The action research framework includes two research questions: (1) which measures could assist the host organisations to determine whether the Innovation Program was a success or not? and, (2) has there been any change in the way the organisations perceive their staff in terms of their innovative or creative behaviour? Both organisations chose to view the phrase ‘Innovation Program Success” as achieving either a cost reduction or revenue improvement or a combination of both.

ServCo: 2001 to 2003

Program One 2001

Phase One – “Diagnose”

The diagnosis of ServCo had been completed in 2000 and from this organisational analysis and an opportunity was identified to engage new staff in creativity, innovation and entrepreneurial training. ServCo’s leadership recommended that an Innovation Program be planned and implemented in 2001.

Phase Two – “Plan”

The Innovation Program managers received innovation advice over a six-month period from a wide variety of sources to assess what could be achieved to realise outcomes of an innovation program that would assist or drive organisational growth. A five-step Innovation Program was designed and approved by the ServCo’s leadership and the appropriate human and financial resources were allocated. A project management schedule was created and the first program was launched. There was a high degree of uncertainty as the Innovation Program was new to ServCo, it was expensive
(in excess of $200,000) and was not like any program seen before in the organisation. During this phase, the first Innovation Program concentrated on avoiding organisational focus on or attempting to manage the perceived and actual risk of the Innovation Program failing.

**Phase Three – “Action”**

The program was conducted over a 4-month period.

**Phase Four – “Evaluation / Reflection”**

The Innovation Program management team met at the conclusion of the first Innovation Program to discuss the following feedback from the leadership:

1. There is need to increase resources for a dedicated Innovation / New Product Development Team (or similar) to foster a culture of innovation at ServCo.

2. A dedicated Innovation / New Product Development Team (or similar) should be charged with responsibility for adapting this year’s Innovation Program, in order to run subsequent programs. This would allow all staff to participate in some form over a sufficient number of years. This team should also run a follow up Innovation Program for current participants in 12 months and then again in 2 years time.

As part of the action learning methodology, the Innovation Program management team and this researcher regularly met to reflect, adjust and measure the progress of the Innovation Program.

Additional recommendations were developed to improve the Innovation Program:

Participants from other areas of the organisation are to be included and to incorporate staff from other hierarchical levels (other than new staff). Run cross-level and cross functional teams, including a director, briefed by a business unit leader. The Innovation Program will be mandatory for all new staff at ServCo. There were also several recommendations for the changes to the program’s structure, including a shorter time frame and with completion in six months which would be three months less that Program One. An innovation “think tank” is established for the leadership before the Innovation Program commences to ensure all leaders are aware of this program and
understand its importance to ServCo. External members of the Innovation Program (consultants, information technology, public relations and marketing) are invited to attend all sessions of the Innovation Program to ensure that all the skills required to drive the success of the program. Allow participants to become comfortable with working with “externals”. The external consultant should be used extensively.

The execution of the Innovation Program could be enhanced by giving more autonomy to the local offices to tailor the program for their needs, subject to business leader approval, for example, provide a basic framework but allow local decision making in the areas of timing, scope/objectives and participant eligibility. The communication of the values and benefits of participating in or supporting of the Innovation Program needs to be highlighted. There needs to be a greater level of buy-in and support from senior managers and leaders of ServCo.

The importance of formal and informal feedback will assist participant’s greater level of understanding of the Innovation Program’s goals and objectives. To build on this, an allocated "mentor/coach" could then be responsible for completing feedback on the team members.

The evaluation process was been delayed due to other organisational demands, affecting new staff in Sydney, Melbourne and Brisbane. Some teams waited over 2 months for results. The use of technology and an Innovation Program of shorter duration should alleviate this.

The development and implementation of ideas could follow several directions. The establishment of a separate Innovation / New Product Development group which could consist of representatives from all industry groups. Alternatively, through the business unit leader and along industry lines, each business unit that supports the idea takes responsibility for developing and implementing that idea.

The administration team’s support of the Innovation Program One resulted in excess of 1,100 hours being allocated to the program and was a significant drain on ServCo’s resources. Going forward, the Innovation Program warrants implementation by a dedicated team. The Innovation Program has served as a platform for ServCo to launch the concept of innovation becoming an integral part of its culture. To achieve the necessary communication and the extension of the Innovation Program nationally a dedicated communication manager be appointed.
At the conclusion of the first Innovation Program, the leadership of ServCo stated, “The Innovation Program’s most beneficial outcome has been the opportunity for our younger staff to present ideas, to be acknowledged and considered by the leadership team. This has empowered participants to continue to raise new ideas and to ask “What If?” They continued by saying, “We understand that the lack of commitment shown by some areas of ServCo has largely been due to lack of understanding and awareness of the Innovation Program. Our ultimate goal of achieving a culture of innovation will only be partially achieved through the Innovation Program. However, this Program has been an effective catalyst”.

The enthusiasm of participants (the newer members of staff) at the Innovation Program induction was not as high as expected. This was largely due to the relatively unstructured nature of the Innovation Program. The program was designed deliberately to be unstructured to force participants to think rather than solve complex problems at speed. Participants struggled to grasp how they could add value to the organisation through an Innovation Program that they knew little about. They were daunted or overwhelmed rather than enthusiastic. When participants were asked about their level of excitement or anticipation, the general feedback from the new staff was that they needed more focus and direction. This tended to outweigh any feelings of excitement and challenge.

At the conclusion of the Innovation Program, participants were asked to present to ServCo’s leadership team. It was at this stage that most participants found new enthusiasm to present their final idea.

**Innovation Ideas Evaluation – Process of Assessment**

Twenty-six teams (148 participants) participated in the first Innovation Program. In order to help the leadership team assess the feasibility of these ideas, an assessment matrix was designed (by the researcher) and used in the evaluation of the ideas. The business ideas proposed by all teams were reviewed by the national leadership and then compared to local assessments.
Definition of Rankings

Initially the ranking of innovation ideas was:

1. Transformational - ideas recommended for further development and implementation,
2. Substantial - ideas "parked" for possible reference in the future. The cultural shift during the first Innovation Program saw ServCo embrace the notion that all ideas presented are valuable and be kept as the environment and organisation are both constantly changing. Previously, if an idea was not relevant in the current market place then it would be discarded,
3. Incremental - ideas to be used as catalysts for further ideas.

During the national evaluation of the ideas, new criteria evolved based on the learning and reflection of the leadership team during their participation in the Innovation Program it was recommended:

1. Ideas for development – these ideas be developed further,
2. Ideas for referral – ideas to be referred to relevant industry / product groups to assist current or spark new research,
3. Ideas to be parked – the majority of these ideas have already been developed elsewhere or are not aligned with the current business strategy
This change in evaluation was based on leadership feedback and review. The consensus was to simplify the selection criteria to enable more of ServCo’s staff to understand and embrace the Innovation Program.

At the commencement of the Innovation Program 2001, it was anticipated that the following objectives and outcomes would be achieved.

**Table 12 ServCo’s Objectives 2001**

<table>
<thead>
<tr>
<th>Objective/Outcome anticipated at Program Outset</th>
<th>Objective/Outcome Achieved</th>
</tr>
</thead>
</table>
| Business leaders will have a pool of innovation proposals prepared on industry lines and a bank of ideas to act as catalysts for future innovation and new product development  
*Metric = Number of ideas* | Fully achieved                                  |
| Participants will be convinced of ServCo’s commitment to innovation                                            | Partially achieved - not all participants are convinced, however the process has been started |
| *Metric = Budget and Political Support*                                                                        |                                                 |
| A culture of innovation amongst participants will be witnessed by broader practice, providing the first step towards inculcating an innovation ethos (“What if?”) to the way we will do business.  
*Metric = Client Survey – What innovative solution has ServCo provided?*                                         | Partially achieved - this has been more effective in the offices where the program and “Innovation Launches” were well communicated. |
| Participants will have a greater understanding of how our business works                                        | Fully achieved                                  |
| *Metric = Organisational Awareness = Number of referrals internally*                                             |                                                 |
| Participants will have developed skills in innovative thinking, project management, proposal presentations, teamwork, researching, preparing business case proposal  
*Metric = Number of innovation opportunities approved*                                                          | Substantially achieved - participant skills in these areas have improved significantly. |
Table 13 ServCo’s Results 2001

<table>
<thead>
<tr>
<th>Ideas for development</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas for referral</td>
<td>12</td>
</tr>
<tr>
<td>Ideas to be parked</td>
<td>11</td>
</tr>
</tbody>
</table>

Program Evaluation

ServCo introduced the following key performance indicators (KPI’s). The KPI’s were established using key evaluation criteria suggested in the original proposal and from feedback sought from the participants and key stakeholders of the program. The effectiveness of the program has been measured as follows:

Table 14 ServCo’s Achievement of KPI’s

<table>
<thead>
<tr>
<th>KPI’s</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of feasible ideas generated by participant teams</td>
<td>3 ideas have been recommended for implementation and another 12 have very real potential</td>
</tr>
<tr>
<td>Amount of revenue/cost saving generated by ideas implemented</td>
<td>Not clearly defined at this stage</td>
</tr>
</tbody>
</table>

Table 15 ServCo’s Summary of Feedback

The following groups were surveyed for feedback on the Innovation Program.

<table>
<thead>
<tr>
<th>Group</th>
<th>Key Responses</th>
</tr>
</thead>
</table>
| Core Team/ Project Managers | 100% response rate.  
A worthwhile program, however it should run for 4-6 weeks and changes need to be made to the Program structure such as timing and content of the program. Greater definition of scope and clearer definition of the leaderships’ expectations are required. There needs to be greater support from the practice if the importance of the Program is to be recognised. |
| **Resource Group** | 95% response rate  
Enjoyed participating in the program, but would have liked to be contacted more and have more involvement. Suggested they could have acted more as a coach/mentor to groups in order to help teams more with teamwork issues arising during the program. Also made suggestions regarding scope, timing and teamwork for future Programs. |
|-------------------|----------------------------------------------------------|
| **Participants**   | 90% response rate.  
The key benefits of the program were the opportunity to present and be listened to by the leadership, the networking and teambuilding opportunities, and exposure to other levels of the firm, understanding ServCo’s business, improving skills and recognising the potential for innovation. Participants would have liked clearer definition of objectives, expectations and scope. Also greater support from managers and less conflicts with client commitments. Very interested in what will happen to their ideas and whether they will be allowed to be part of the process of developing their idea. |
| **Organisational audience** (surveys completed at the final presentations) | 15% response rate  
Most were impressed by the quality of ideas and presentations considering the level of experience the graduates have. Very keen to see how serious the Innovation Program is taken and whether any ideas will be pursued. |
| **Leadership Team** | 100% response rate  
Consensus that participants needed more guidance or alternatively should participate in the Innovation Program once they have some more experience. Cultural change requires more than an Innovation Program, however, and the process followed in execution of the program has been valuable. |

**Summary**

The leadership viewed the first Innovation Program as a learning exercise. They stated, “The Innovation Program has been extremely valuable in providing crucial development for the new staff. There has been a sense of empowerment and achievement for the participants. However, all of the groups providing feedback have emphasised that the structure, objectives, scope and timing of any future programs should be reviewed in the context of developing our business”. In addition to the feedback provided to participants during their final presentation, each team in the Innovation
Program was provided with formal feedback on its idea following the leadership's assessment. Feedback on individual performance was also given participants. It is of interest to note that the managers and leaders of ServCo tried to use many different forms of measurement to justify the initial investment of time and financial resources.

ServCo 2002

Program Two 2002

Phase One – “Diagnose”

The diagnose phase in the second Innovation Program was considerably shorter than in the first program (two months) as precedent was established. The novelty of the Innovation Program had diminished and there was data available to assist the Innovation Program management team to incorporate feedback from Program One into Program Two’s design.

It is of interest to note that ServCo was satisfied with the survey instrument (and its outcomes) as they viewed the data as being able to contribute to the development of their overall strategy of organisational growth. The challenge for Program Two was could the data results be improved?

The recommendations from Program One were revisited and the following changes were made for Program Two.

(1) A dedicated Innovation / New Product Development Team was established.
(2) The Innovation Program was extended for another two years.
(3) Participants from other areas and hierarchical levels of the organisation were included.
(4) Each Program was shortened to six months.
(5) An innovation “think tank” was created for the leadership – ensuring all would be conversant with the program aims.
(6) External members of the Innovation Program were included in all program sessions.
(7) The external consultant was to be used extensively.
(8) A tighter structure was developed with clearer expectations of outcomes defined.
Phase Two – “Planning”

The Innovation Program managers gathered innovation advice over a three-month period, essentially incorporating the feedback from Program One. Program Two was now very tightly scheduled with clear outcomes and had a similar number of steps to Program One. A project management schedule was created and Program Two was launched. The level of uncertainty was still high as members of the Innovation Program management team were still struggling to convince some managers of ServCo that the program would be of benefit to them. This was in part due to the constant turnover of staff in ServCo. An important outcome for program Two was for the leadership to be seen to have made the right decision in allocating further funding for another two years.

Phase Three – “Action”

Program Two was implemented over a six-month period.

Phase Four – “Evaluation / Reflection”

ServCo’s Analysis Year 2 (2002)

The Innovation Program’s second year was based on the incorporation of ideas received in 2001 and has seen the Innovation Program in line with the action research methodology of plan, action, execute and evaluate. The key messages received in the feedback from participants, stakeholders and ServCo’s leadership in 2001 were a change in the timing of the Innovation program to reduce conflicts with ServCo’s core business activities, enhanced communication and feedback, increase the enjoyment of participants and thus their engagement and clearly outline the goals and objectives of the innovation program in 2002.

The innovation program stimulated and enhanced participant enthusiasm and gave a sense of empowerment and curiosity within and about ServCo. Participants considered the Innovation Program worthwhile, challenging and rewarding. (Chart 25)

New staff commented that in addition to developing key skills and business knowledge, they have found the opportunity to question the “norm” and to develop and propose new ideas for ServCo’s
business, to be empowering and exciting. They also enjoyed the opportunity to develop relationships with colleagues at different levels, particularly with the leadership group.

In 2002, 55 teams of new staff from all areas of ServCo and resource group members (managers and above) and coaches (some of those involved in Innovation Program One) were involved in coaching the teams. Participants were provided with the challenge of developing a capability or solution that adds value to our clients’ businesses and/or builds the prosperity of ServCo.

In terms of business growth, 17 Innovation Program ideas were recommended to the leadership for further development and possible implementation. The majority of these ideas were value adding client solutions, some were process improvement solutions and some were solutions to assist in the development of a high performance culture within the organisation. In addition to these 17 ideas, there were numerous others, which sponsoring leaders and the teams decided to develop in their industry group. The overall response and level of support from the organisation suggest it is increasingly embracing the Innovation Program and the notion of an “ideas culture”. Although there is still some headway to be made, ServCo is taking steps forward to engender an “ideas culture”. ServCo expects that an “ideas culture” will emerge over time, through generational change and through integrated sponsorship and management in the business.

In an ever-changing market place, ServCo has recognised the need to develop its people to be adaptive and agile to its clients’ business needs. As such, the Innovation Program has proved to be a model of the way ServCo does business and is a crucial step towards engendering a culture of ideas, in order to achieve organisational success in a changing market place. Innovation Program Two has encouraged all staff to generate ideas for clients’ and ServCo as well as develop skills in the areas of innovative thinking, project management, presentations delivery, teamwork, conflict resolution, technical research and proposal preparation.

The main influences for changes to responses (which are consistent overall) included, the innovation program team leadership group refining their internal communications, program design and modifying the participant workloads. The innovation program direction remained the same over the three-year period with the emphasis moving from internal savings in year one, to customer growth in year two and returning to internal savings in year three. Accordingly, the type of innovation made little or no difference in the innovation programs and there were no specific problems that were unique to the three-year period.
Key Performance Indicators

Innovation Program 2002 was evaluated against five key performance indicators (KPI’s):
1. Feedback survey results
2. Assessment against objectives
3. Number of ideas from different areas of ServCo
4. Behavioural change within the practice
5. Financial investment

Feedback and Survey Results

Participants, resource group coaches and the Innovation Program management team were asked to complete a feedback survey at the completion of Innovation Program Two.

The results of the survey were presented in three key areas:

1. Perceptions and attitudes on engendering a culture of ideas
2. Participant skills development
3. Innovation Program Two (design, structure, process, etc.)

The following analysis highlights the results of Program Two.

1. Perceptions and Attitudes on Engendering a Culture of Ideas

Prior to participation in Innovation Program Two, 87% of participants and 59% of resource group coaches considered ServCo as a community where generating ideas was a normal part of working life. The survey results of Innovation Program Two reinforces this mindset. (Chart 1)

As a result of Innovation Program Two, participant perception changed to some extent. Participant feedback indicated their appreciation and greater understanding that ServCo recognises the valuable contributions new staff can make and that Innovation Program Two was a tangible example of ServCo’s supporting a high performance culture.
All participants and resource group coaches indicated a strong belief that innovation is imperative to business success and that Innovation Program Two contributes to innovation in the organisation.

While this is the overall impression, it is clear that there are varying levels of support across ServCo for Innovation Program Two and the participants in the Innovation Program.

Feedback suggests that most leaders demonstrated a high level of support and were generous with their time throughout the four months. Managers and senior consultants were found to provide limited support. This appears to be due to their limited understanding of Innovation Program Two and their focus on chargeable work. There was recognition that the expectation placed on participants from their managers regarding chargeable work contributed significantly to ServCo’s success. A greater understanding of the initiative will enable them to see the direct link between Innovation Program Two and achieving positive results for their clients. There is an opportunity to find alternative ways to manage the multiple priorities of ServCo so that it can channel some of its focus towards an ideas culture in order to achieve long-term success. The concept of “chargeable thinking time” might be a step in this direction. There was recognition that significant shifts in attitudes and behaviour will only occur over time and with integrated support from ServCo during and after Innovation Program Two.

2. Participant Development

Participants believe they have personally developed because of being involved in Innovation Program Two. The key areas participants believe they have developed are:

1. Innovative thinking
2. Knowledge of ServCo’s business
3. Networking and building relationships with peers and senior staff
4. Level of confidence
5. Research and technical skills
6. Team work
7. Delivering presentations and writing proposals
8. Marketing

3. Innovation Program Two (design, structure, process)
Overall, participants found Innovation Program Two to be challenging and time consuming, yet a rewarding and satisfying experience. Most participants found it to be a huge learning experience, in terms of both professional and life skills. As a consequence of their involvement, participants felt empowered and valued.

The key concerns stemming from the feedback given were:

1. Timing of Innovation Program Two and its impact on workload.
2. The communication of Innovation Program Two objectives across ServCo, and support from Managers and Senior Consultants.

**Assessment against Innovation Program Two 2002 Objectives**

Innovation Program Two continues to drive an organisational issue of adaptation and agility. To address this issue Innovation Program Two aimed to achieve a number of key objectives.

**Table 16 ServCo’s Program Objectives 2002**

<table>
<thead>
<tr>
<th>Innovation Program Two Objectives</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Develop a mind-set and expectation that generating innovative ideas and solutions for our clients' businesses is a normal part of working life at ServCo.</strong></td>
<td><strong>Substantially achieved.</strong> Feedback from participants and Resource Group coaches indicates Innovation Program Two created the expectation and environment where ideas and challenging assumptions are encouraged. Survey results illustrate that respondents believe innovation and tailored client solutions are necessary for ServCo’s success. The survey also indicates that participant’s value being part of a community where they can contribute their ideas and solutions to ServCo’s clients. ServCo (at all levels) needs to continually reinforce the same mind-set and expectation during and after Innovation Program Two.</td>
</tr>
<tr>
<td><strong>Develop participants' skills in the areas of innovative thinking, project management, delivery of presentations, teamwork, conflict</strong></td>
<td><strong>Fully achieved.</strong> Participant feedback confirmed that this objective was achieved. Resource Group feedback also supports. The participant’s presentations demonstrated a depth of talent - in the range of ideas developed and presented, and in the enthusiasm of the teams for their initiatives. The detailed business cases were generally well researched and linked to existing business imperatives, showing a strong...</td>
</tr>
<tr>
<td>resolution, technical research and proposal preparation.</td>
<td>understanding of the business units.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| **Generate a pool of innovation proposals for potential development within our organisation.** | **Fully achieved.**
55 teams across the nation developed and delivered detailed business cases and presentations in support of their ideas.
Ideas range from outstanding to incremental and some are ordinary. |
| **Encourage unit networking and solutions development.** | **Partially achieved.**
The majority of participants believed they developed new networks with people in other units. The feedback from Resource Group coaches indicated that Innovation Program Two fast-tracked this opportunity, however, they commented that the opportunity for unit networking and solutions development could have been maximised with more unit teams.
Four Financial Services teams were involved for the first time and illustrated the real potential for multidisciplinary client solutions development. The unit-specific teams illustrated their understanding of their own and other unit businesses in their team interactions and in the breadth of solutions developed.
The unit teams did face greater challenges upfront e.g. buy in from specific industry groups would be needed to expand the number of unit teams. |
| **Encourage innovation, challenging the status quo within the business** | **Achieved.**
Survey results indicate Innovation Program Two was successful in encouraging innovation and challenging the status quo within the business. However, a ‘culture of ideas’ and encouraging innovation should emerge over time, through generational change, sponsored from the top and evident in the attitudes of the younger staff.
Compared to 2001, the survey results and the behaviours demonstrated indicate a notable increase in support and commitment from ServCo. However, Managers and Senior Consultants across the different units appear to be the least supportive and responsive to the benefits of Innovation Program Two. Greater emphasis will need to be spent on the leaders in 2003, enhancing their understanding of the initiative and communicating the benefits to ServCo. |

**Number of Ideas from Business Units**

Eighteen ideas have been recommended for further consideration and potential implementation. A Leader sponsor for each of these ideas has been identified to be accountable for further development.
An overview of the ideas presented below illustrates the different number of business units represented:

**Table 17 ServCo’s Program Two Outcomes**

<table>
<thead>
<tr>
<th>Business unit</th>
<th>Recommended for development</th>
<th>Recommended for further discussion</th>
<th>Recommended for parking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 1</td>
<td>5</td>
<td>9</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>No 2</td>
<td>9</td>
<td>6</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>No 3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>No 4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>17</td>
<td>21</td>
<td>55</td>
</tr>
</tbody>
</table>

**Behavioural Changes in ServCo**

Feedback from participants suggest that they are comfortable applying the skills they have developed through Innovation Program Two to their work and in continuing to generate / offer new ideas for business. All survey respondents also consider innovation as imperative to ServCo’s success. After Innovation Program Two, numerous teams and their business groups were excited about the ideas put forward. A number of Innovation Program Two ideas that were not formally approved through the review process have strong support from the respective leaders. Leaders and teams have taken the steps to further progress these ideas and integrate them in the business.

In addition, there are a number of examples that demonstrate participants applying the skills and behaviours from Innovation Program Two, on the job. A 2002 participant came up and offered a solution called “Mount Innovate”. The idea has been implemented aims to enhance the thinking process of our people for client solutions.

Numerous participants involved in Innovation Program Two 2002 have approached the Innovation Program Two team about assisting with 2003 based on their own development and enjoyment from the 2002 initiative.
Outside Innovation Program Two, there are other innovation activities being initiated by the ServCo. These confidential examples illustrate the shift in behaviour and attitudes within ServCo towards challenging assumptions and adapting the processes to address client’s needs and ServCo’s, business needs and achieve success.

The evaluation / reflection process was completed over a three-week period after the completion of the program by the Innovation Program Two management team, leadership and participants who collectively developed a set of recommendations that would be incorporated in Innovation Program Three.

**Recommendations for Innovation Program Three**

(1) The structure and format of the opening launch needs to be considered further. Whilst the event has real value from a networking and leadership sponsorship perspective, participants were keen to obtain more detailed information on the journey they were about to embark on.

(2) More time should be given for participants to explore opportunities and start to generate ideas.

(3) Consulting skills should also be included in the workshop. Participants believed they needed to develop their questioning and listening techniques and learn how to uncover the needs of the clients.

(4) The timing of the training for participants in the Innovation Program needs further planning to assist them achieve a “higher” standard of presentation. Participants need a higher degree of facilitated feedback after their interim and final presentations to enable them to improve at a faster pace. The presentations training should be followed up with a series of concentrated coaching from resource group coaches to reinforce and refine participant skills (e.g., the teams who delivered outstanding final presentations in Sydney did a practice run with their leader sponsor to receive feedback and advice).

(5) The brainstorming phase of the Innovation Program worked well, however, teams needed more time to work on their own. As such, only part of the day should be dedicated to meetings between teams and resource group coaches. The option for teams to invite their leaders for part of the day should be advertised and promoted to a greater extent.

(6) Fine tuning of the Innovation Program timing.

(7) Communication to all stakeholders, particularly in the two business units of what Innovation Program involves needs to be clearer.

(8) All participants should receive an upfront briefing should be conducted for all participants providing more detail than is presently given. This should include the information delivered at the
1st day of the two-day workshop and all the background about the business issue, objectives and goals. The role of support staff should be redefined and communicated in more detail at the upfront briefing.

**Execution Recommendations**

(1) The role of the external resource group member needs to be evaluated. If their involvement is maintained, there is a need to consider where they will add value and ways to encourage participants to utilise the resource is to be determined.

(2) Participants should be asked to discuss their ideas with leaders or at least have a guiding principle on how many people to consult with and at what level.

(3) There should be a process in place where the resource group regularly provide updates to the local manager on the progress of teams. The investigation into the use of email is considered.

(4) Allocate one coach per team. This will enable greater involvement in the team’s progress and assist the coach in the appraisal of the participants.

(5) Participants managers should appraise their coaches. This will engage the manager in the feedback process and provide an opportunity for them to gain an increased understanding of Innovation Program.

(6) A formal process needs to be in place to ensure non-duplication of ideas. Both the Innovation Program management team and participants need to take accountability for this.

**Ideas Evaluation Process**

(1) The evaluation criteria for the review of ideas need to be communicated and explained to participants at the start.

(2) Business development (BD) should be involved in the evaluation of ideas in conjunction with industry specialists and resource group members.

(3) The Innovation Program management team should project manage the process but not be involved in the specific decisions.

**Development / Implementation of Ideas**

(1) Consider an electronic process, which automatically sends a courtesy reminder email to participants / leaders whose ideas are being implemented requesting for an update.
Resource Requirements

The following resources are required for Innovation Program Three to build on the reflection and feedback.

(1) Core support should comprise of a national manager, four local managers and four local administrators.

(2) The support functions should have a facilitator, a resource group member from each business unit and one coach per team (a participant from either Innovation Program One or Two).

ServCo 2003

Program Three 2003

Phase One – “Diagnose”

The diagnose phase in Program Three was shorter again than in Program Two (Six Weeks) and Program One (two months), due to the Innovation Program team’s experience continuing to grow. The Innovation Program continued to increase its profile at ServCo. The data accumulating from the two Innovation programs was available to all at ServCo and was able to assist the Innovation Program management team incorporate feedback into Program Three’s design.

ServCo’s leadership was surprised positively with the results of Program One and Two. The potential for both revenue generation and cost savings was recognised and demonstrated the Program’s ability to facilitate opportunity recognition and capture this throughout its organisation. The data showed improved results across the range of questions and the leadership was once again prepared to invest in Innovation Program Three. (Charts 9, 10 and 11)

The recommendations from Program Two were incorporated and the following changes were made:

(1) Detailed briefing sessions prior to Program Three were scheduled across ServCo

(2) The Innovation Program workshop was restructured to allow participants to explore opportunities and start to generate ideas and enhance their consulting skills
Phase Two – “Planning”

The Innovation Program managers were now in a position to adjust the Innovation Program quickly and had sufficient information and data to be confident in trying to raise the outputs of revenue generation, cost savings and behavioural changes for Program Three. The third program was designed, approved by the organisation’s leadership groups and the appropriate human and financial resources were allocated. A project management schedule was created and the Program Three was launched. The degree of uncertainty was relatively low as the level of support of the Innovation Program was widespread as the program was now considered by many as an integral part of the way ServCo developed and trained new staff. Program Three in part focused on ServCo demonstrating to its clients that they not only talked about innovation, they embraced it themselves.

Phase Three – “Action”

Program Three was completed over a 4-month period.

Phase Four – “Reflect / Evaluate”

Participants of Innovation Program Three agreed that ServCo was committed to developing an “ideas culture” that they were now able to identify new opportunities and were confident at raising new ideas. The resource group and coaches supported this view. Participants felt that innovation and ideas were important to their job with the organisation and that even before the Innovation Program, they considered themselves to be creative. (Chart 4)

The objectives of building skills in specific areas were all achieved. This was demonstrated by a belief in the participants and the resource group / coaches that they have developed in these areas. A significant minority of participants felt that the tools provided for the Innovation Program were not
useful; 20% felt they do not have support from within their group, and 25% indicated that they did not use their coaches and the resource group well. An overwhelming majority of participants (and all Resource Group and Coaches) would recommend the Innovation Program to other people. (Chart 25)

From the comments written by participants, the key concerns can be summarised as follows:

(1) Timing within the Program – generally the comments were made that less time is required for ideas generation and more for the business case and presentation preparation
(2) The clash between Innovation Program commitments with other training programs, client work and university (the latter with respect to undergraduate participation)
(3) Understanding of the Innovation Program within ServCo, particularly within the manager group
(4) Timing of the Program – the latter part of the year when the Innovation Program runs is very busy in the business units
(6) The lack of leader attendance and visibility at the showcase presentations was noted
(7) Lack of commitment by some participants, leading to a heavier workload for other members
(8) Regional office logistics – the ability to have some autonomy regarding the way things are run due to the smaller office size
(9) The lack of cross unit networking and the suggestion of more cross unit teams
(10) Commitment (or lack of) from some resource group members

Innovation Program Three has contributed to building on the foundation of enterprising behaviours laid down in Innovation Program One and Two. Cultural change has continued positively and constructively with a commercial and strategic focus demonstrated by all participants. The confidence and energy of Innovation Program participants has continued to grow. The use of the same survey instrument and Innovation Program style has resulted in outcomes and measures that the leadership of ServCo can continue to use to strengthen the organisation.

These results confirm the initial research questions of the measurement of innovation in large service organisations.
(1) To identify the measures that are repeatable during a three-year period
(2) To determine if those metrics were valid in two different service organisations

In summary
Program One: The first Innovation Program as a learning exercise. They stated, “The Innovation Program has been extremely valuable in providing crucial development for the new staff. There has been a sense of empowerment and achievement for the participants.

Program Two: Program objectives to be clearly stated. More time should be given for participants to explore opportunities and start to generate ideas. Increased communication to all stakeholders. The role of support staff should be redefined and communicated in more detail at the upfront briefing.

Program Three: The degree of uncertainty was relatively low as the level of support of the Innovation Program was widespread as the program was now considered by many as an integral part of the way ServCo developed and trained new staff. Program Three in part focused on ServCo demonstrating to its clients that they not only talked about innovation, they embraced it themselves.

It appears that the measures used in the survey are repeatable after three iterations of the Innovation Program. The second question is discussed by comparing the six years of survey results in the tables at the end of the EduCo analysis in this chapter.

For the statistical analysis testing for significance of the observed changes across time/iterations, please see appendix number

EduCo 2004 – 2006

Program One 2004

Phase One – “Diagnose”

After several meetings and workshops with the leadership of EduCo and the researcher it was decided that one way forward for EduCo to be sustainable and create an innovative model of growth, was to embrace the principles and practice of innovation and entrepreneurship.

The leadership created the Innovation Program management group that jointly adjusted the principles of the Innovation Program to suit the culture of EduCo. This group has worked well, due to the rapid development of mutual respect and the establishment of trust in the group’s abilities to focus on the core purpose of the Innovation Program to create a sustainable EduCo.
The leadership of EduCo applied a test (of three parts) for its Innovation Program:

(1) The program must be **achievable**. Participants proposals were far-reaching and very enterprising however not achievable in the time or budget allowed for the Innovation Program. These projects were scaled back by the Innovation Project management team to help participants gain the sense of accomplishment and achievement (a highly desirable habit).

(2) The program must be **measurable**. The Innovation Program has had two surveys and one formal survey instrument administered to participants, managers, coaches and mentors. The key areas of measurement were Idea/project proposals generated, Ideas implemented, Communication protocols and Leadership & management.

(3) The program must be **repeatable**. To intervene in the current culture and to try to alter it to one more outward looking, connected with the local, national and international market place as well as being a thought leader.

The same survey and research questions used at ServCo were used at EduCo. They were (1) which measures could assist the organisations understand whether the innovation program was a success or not? (2) Has there been any change in the way the organisation viewed their staff in terms of innovative or creative behaviour?

EduCo was preparing for a significant restructure of its operations. The outcomes from organisational analysis highlighted an opportunity to identify the potential of existing staff to lead and manage EduCo. Further, EduCo needed to invest in the skills to ensure the growth of the organisation was sustained. It was decided by the leadership that an Innovation Program would be investigated and implemented to provide a commercial opportunities and also be a test of the potential of staff. The leadership team had the advantage of learning from the three-year Innovation Program experience at ServCo and could see the immediate benefits that could be realised by EduCo.

**Phase Two – “Planning”**

The research outcomes from ServCo simplified the briefing of EduCo’s Innovation Program director. This resulted in an Innovation Program plan rapidly and successfully created that gained EduCo’s leadership support and investment immediately. A program management team was created
and a management plan of action was completed. There was a high degree of confidence in the success of the Innovation Program as the program structure was based on three years prior development and refinement at ServCo. The cost of the program was in excess of $100,000 and those funds were, in part, sourced from the Victorian State Government. The first Innovation Program concentrated on trying to establish a core of enterprising staff who would create opportunities for EduCo.

**Phase Three – “Action”**

The program was completed over a 7-month period. The number of participants was 52.

**Phase Four – “Evaluation / Reflection”**

The potential of staff at EduCo to be enterprising was remarkable. This was demonstrated by their willingness to participate in Innovation Program One, despite the program being considered risky by many. Participants embraced the program and showed a high level of determination to be successful. They considered that by participating in Program One, their professional development would be enhanced and that they would contribute to the creation of a sustainable EduCo. It could be argued that a sustainable EduCo was in their own interest – to remain employed. This was not the only factor as a sense of pride in their organisation rapidly emerged. A “loose-tight” approach was a foundation strategy of the Innovation Program and for coaches and mentors where guidelines and rules were kept to a minimum (“loose”) in order to allow a sense of creative freedom to emerge. As the Innovation Program deadlines became closer, a “tight” or more ordered approach was employed where typically there are greater levels of communication between the facilitator, management support team and the management group in the form of short progress reports. Participants of the Innovation Program were self-selected. This enabled staff of all ages and levels of seniority to step forward. The result was a very mixed group from young, relatively inexperienced and junior staff to the older and more experienced. This resultant mixed-level group conveyed the message that everyone at EduCo can play a role in innovation and enterprise.
Early intervention (usually by a director) if a participant or innovation project faced difficulties was also a characteristic of the Innovation Program. This created the sense of safety for all participants in the event of a problem occurring that could hinder the progress of their project. To create a sustainable EduCo, the Innovation Program management team could not let anyone fail (on a personal level) due to lack of assistance. Assistance usually meant moral support, encouragement and the opening of doors for participants.

The possibility of failure of a project in the Innovation Program was real. There was quite a stigma attached to the word failure among the participants at the start of Innovation Program. The management team worked very hard to separate project failure from personal failure. The Innovation Program had only one project failure which was quickly identified using the tools and techniques of Innovation Program. The identification of the reason for failure was there was no demand in the market. This early identification was viewed as a very positive outcome. The reason, which was communicated very quickly to all participants, was that scarce Innovation Program resources could be quickly redirected to another innovation project in the program. This caused a very positive reaction throughout EduCo. No territory or department dominance was allowed during the Innovation Program. The encouragement of co-operative behaviours with project development and success was encouraged and demonstrated by the facilitator. After the first week of the program, participants were actively helping each other achieve the Innovation Program and EduCo’s goals. This demonstration of cooperative and positive behaviour resonated throughout EduCo.

EduCo leaders had to be visible at all events and functions, and they had to be able to positively intervene when real and imagined blockages occurred. This collaboration and intervention supported the change strategy of “do what I do”, rather than “do what I say”. To effect cultural change, the Innovation Program intervention was aided by creativity and innovation to literally shake participants out of current behaviours in a safe and supportive environment.

The mixture of short term revenue gains (what could be called opportunistic) with medium to long term sustainable revenue generation projects (planned and strategic), caused some confusion as many participants were used to doing one or the other. The Innovation Program contributed to reinforcing the mindset of being able to do both. The two main measures employed in the Innovation Program were the projected revenues from projects and the preliminary quantitative survey results (85% returned). Sixteen project teams comprising of 129 participants participated in EduCo’s first programs, see Table 18 below.
### Table 18 EduCo’s Program One, Estimate of Financial Results

<table>
<thead>
<tr>
<th>Project</th>
<th>75 - 100%</th>
<th>50 - 75%</th>
<th>&lt; 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project 1</td>
<td>5,000</td>
<td>10,000</td>
<td>15,000</td>
</tr>
<tr>
<td>2. Project 2</td>
<td>0</td>
<td>0</td>
<td>45,000</td>
</tr>
<tr>
<td>3. Project 3</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>4. Project 4</td>
<td>3,360</td>
<td>5,040</td>
<td>8,400</td>
</tr>
<tr>
<td>5. Project 5</td>
<td>9,600</td>
<td>19,200</td>
<td>38,400</td>
</tr>
<tr>
<td>6. Project 6</td>
<td>30,000</td>
<td>40,000</td>
<td>45,000</td>
</tr>
<tr>
<td>7. Project 7</td>
<td>30,000</td>
<td>45,000</td>
<td>65,000</td>
</tr>
<tr>
<td>8. Project 8</td>
<td>24,000</td>
<td>32,000</td>
<td>168,000</td>
</tr>
<tr>
<td>9. Project 9</td>
<td>0</td>
<td>0</td>
<td>85,000</td>
</tr>
<tr>
<td>10. Project 10</td>
<td>3,120</td>
<td>4,680</td>
<td>7,800</td>
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<tr>
<td>11. Project 11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. Project 12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13. Project 13</td>
<td>7,152</td>
<td>15,800</td>
<td>15,800</td>
</tr>
<tr>
<td>14. Project 14</td>
<td>13,300</td>
<td>13,300</td>
<td>13,300</td>
</tr>
<tr>
<td>15. Project 15</td>
<td>7,900</td>
<td>7,900</td>
<td>7,900</td>
</tr>
<tr>
<td>16. Project 16</td>
<td>5,000</td>
<td>20,000</td>
<td>70,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$148,432</strong></td>
<td><strong>$222,920</strong></td>
<td><strong>$594,600</strong></td>
</tr>
</tbody>
</table>

### Number of Ideas Generated

Participants quickly generated ideas that exceeded the expectations of the leadership. The challenge was to teach participants how to select, refine but also abandon ideas that did not “fit” the EduCo strategic direction. It is of interest to note that once the selection criteria for innovation projects was explained and tested by many, new ideas for projects quickly emerged.

### Number of Ideas Implemented

EduCo’s Leadership team selected 18 projects of which 16 proceeded. One was abandoned due to the change of the project leader who had another larger project selected as well. One was found not
to have sufficient return on investment after screening and rapid viability testing and the team was
given the opportunity to select another project for investment. This represented an 88% success rate.

**Communication Protocols**

Communication between all levels of the organisation had to be clear and simple to create, capture,
test and implement ideas that are strategically and commercially sound. The Innovation Program
literally forced this to occur by many “communication interventions” by the Innovation Program
management team. This allowed for direct access to the CEO or other directors to “fix” the
problem. All real and imagined problems were solved immediately. This reinforced the
professionalism of the directors by actively participating, a principle of the Innovation Program.

**Leadership and Management**

One important aspect of the Innovation Program was that the leadership team, directors, also
participated in the program. One participant commented that she thought it was fantastic that the
CEO was in the workshop, being challenged and tested before her team. A principle of the
Innovation Program was that everyone who committed themselves to the creativity and innovation
program had to be part of all the elements. The power that was released at EduCo was evident in the
commitment of all participants. As one of them commented: “we are all creative and innovative –
we now know the way to capture, test and implement ideas to create a sustainable EduCo”.

**Survey Results**

The three groups surveyed were: (1) the managers of participants, who had no active role in the
Innovation Program. This was deliberate, as part of the cultural change was to encourage
participants to work through their problems and challenges in the following sequence; go to your
coach, go to your mentor, go to the facilitator then to your manager. (2) Participants were surveyed
and it is of interest to note the variation in the last three survey questions. The participants were the
only ones to have frequent contact with the facilitator and the management team. One could
therefore ask about the level of communication between the participant and the manager. (3)
Colleagues were surveyed for their responses to what they observed of their co-workers who went
through the Innovation Program.
Management Feedback

Feedback from management was:

(1) Continue to focus on the individuals as this is the most advantageous feature
(2) I would like the Innovation Program to continue, as it will assist with ever improving culture
(3) The stated aim of the Innovation Program was to improve our innovation but it became a "Quick Buck" process. Long-term development initially took a back seat to short-term money making
(4) Whilst important to focus on financial imperatives of the Institute, any such program must focus on innovation as the imperative - with the resultant gain in financial outcomes to trigger "real interest" in putting up projects in the future
(5) The immediate thrust of the Innovation program is to earn income for EduCo - I feel that this heavy emphasis may have overlooked some longer-term ideas
(6) A "buzz" has been created around EduCo

Participants Feedback

(1) Not enough time - I would have delivered more
(2) I have enjoyed the project even though this is my first time
(3) I have gained many skills from this
(4) I felt empowered, great to try something new
(5) Great mate-ship with other Innovation Program participants
(6) I have appreciated the support and enthusiasm of the directors and managers - thanks for the journey!

Participant Reaction

When asked to sum up their program experience in two words, the following were mentioned:

Conclusion

Innovation Program One provided benefits on two levels for EduCo:

(1) The tangible benefits should aid the creation and maintenance of sustainable revenue streams. EduCo will strengthen its leadership position in the local catchment and will begin to build a leadership position in the market segment by encouraging, supporting and training its people to look to the market to recognise opportunities and to turn those opportunities into reality.

(2) One intangible benefit has been the first step of cultural change – the step to explore new ways of doing things in a supportive and safe environment. There are now new ways of generating sustainable revenues, new ways of leading and motivating people and new ways of communicating and sharing success.

EduCo 2005

Program Two 2005

Phase One – “Diagnose”

The diagnostic phase at EduCo for Program Two was short and efficient. The recommendations from the feedback of participants was assessed, and incorporated into the second program. It is of interest to note that the Director managing this process could quickly alter the Program focus due to seniority and experience in EduCo, unlike the intensive consultative process at ServCo. The feedback from Program One saw the following changes made to Program Two.

(1) All staff from different areas and levels of seniority were to be included
(2) The Innovation Program now concentrates on areas of the organisation that will need to be developed over a longer period
(3) Cross-organisational groups were to be formed to increase the likelihood of opportunities for growth
(4) Increased promotion and the strengthening of the message of enjoying yourself in a creative project
(5) The Innovation program period to be increased during the year
(6) Increase the diversity of skills for staff, particularly communication, marketing and research

**Phase Two – “Planning”**

The Innovation Program Director at EduCo confidently restructured the second Innovation Program and incorporated all of the above recommendations. In this second Program, all participants of Program One were invited to be of assistance to those of Program Two. The reasoning behind this was to build a sense of history, to increase the stories around the Innovation Program and to provide peer group encouragement and support.

**Phase Three – “Action”**

The program was completed over a 9-month period. Number of participants was 27.

**Phase Four – “Evaluation / Reflection”**

The staff at EduCo again demonstrated their willingness to participate in the program that was still considered by many to be quite risky. This was demonstrated by the way they embraced Program Two and their determination to be successful on two levels. Their professional development and the influence they had on a wider range of people across EduCo. The change in the second Innovation Program was to include the managers of participants as they had been omitted from the first Innovation Program. The reason for this omission was that the leadership of EduCo wanted to determine whether the managers were restricting the enterprising ability of their staff.

**Innovation Program Evolution**

The design of the second Innovation Program was influenced by the positive behavioural changes in the participants that resulted from the success of the first Program. The leadership wanted to continue the positive and constructive changes in behaviours and attitudes of staff that were manifesting themselves across all of EduCo’s locations. The Innovation Program changes included a smaller number staff selected by the leadership who were believed to have potential for management, a concentration on external opportunity recognition and an increase in the involvement of the leadership.
Innovation Program Features

Again a “loose-tight” strategy was delivered to participants, coaches and mentors and guidelines and rules were kept to a minimum in order to allow a sense of freedom to emerge by encouraging creativity and enterprising behaviours. As the Innovation Program deadlines became closer, a “tight” or more ordered approach was employed. This included greater levels of communication between the facilitator, management support team and the management group – normally asking for short progress reports.

In Program Two, the facilitator’s role was lessened as the leadership took a more active role in ensuring the continuing progress of participants and maintaining the focus on Innovation Program outcomes. The leadership was quick to identify any real or imagined blocks to the participant’s progress and assisted them by providing moral support, encouragement and the “opening of doors” for them.

The possibility of failure of a project in the Innovation Program is real. There was still quite a stigma even though two projects failed in Program One with no consequence attached to the word failure among the participants at the start of the Program Two. The management team and the leadership worked very hard to separate project failure from personal failure. The second Innovation Program had no failures.

Again, no territory or department dominance was allowed during the Program Two. The same approach was used by the facilitator who encouraged co-operative behaviours with project development and success. Participants were quick to actively help each other achieve project and EduCo’s goals.

The leadership maintained high visibility throughout the Program and saw the positive effects on participants. This again supports the change strategy of ‘do what I do”, rather than “do what I say”.

Ideas Generated

Participants quickly generated new ideas that exceeded the expectations of the leadership and also produced ideas for growth in existing projects at EduCo. The challenge this time was not to teach participants how to select, refine and abandon ideas that did not “fit” the EduCo strategic direction.
The challenge was how to package and deliver those ideas for successful outcomes. The participants felt challenged when they began to literally ‘step’ out of their environment into the marketplace.

**Ideas Implemented**

The Innovation Program management team invested in all nine innovation projects. While the number of projects was smaller, the magnitude of each project was considerably larger than that of Program One.

**Communication Protocols**

Expectations of the level of communication required internally and externally at EduCo, to achieve project outcomes, were high. The participants built on the principals of clarity and simplicity. The same challenges from Program One of confidence emerged with the participants. The Innovation Program literally forced this to occur through many “communication interventions” by the facilitator and the Innovation program management group. Participants quickly opened up to the facilitator expressing their problems, achievements and challenges of driving a project through many organisation levels, departments and cultures.

**Leadership and Management**

Again, the leadership team actively participated in the Innovation Program. Participants were comfortable working with the leadership in the second program and, were on occasion, challenged them. A principle of the Innovation Program was that everyone who committed to Program had to be part of and complete the entire Program.

**Participant Feedback**

(1) Identify outcomes and timelines before we start
(2) A little more information up front on team/project expectations would be appreciated e.g. that the Innovation Program is only the beginning of the project and that teams and their commitment is for the duration of the project, not just until the Program finishes
(3) Some clearer understanding of funding arrangements for work undertaken after delivery of final presentation
(4) More communication with the team about what management wants and what we can and cannot do
(5) We were quite confused about what was expected of us and when we could access money
(6) Trying to fit everything into limited time is a challenge but I do not have a solution
(7) An outline of the procedures and activities up front to determine timelines, staff availability, and additional hours to be built in to project budgets. This also allows staff who are working part time to realign their own schedules to attend activities and consider the extent of their commitment
(8) On a personal and professional level, I felt stretched and was aware of a conflict between my ongoing work commitments and that required for the Program. I recognise the skills development process within the Project, and the need to facilitate personal and professional growth, but I wonder if some guidance on melding of regular work commitments and the demands of the Program project could have been facilitated?
(9) More time, better marketing – how to sell courses
(10) More money available is needed for product development, resources, and brochures
(11) Money to be available to Program participants for overtime, as this is how most of the work is done
(12) Get more general staff involved come up with ideas to get them feel a part of this wonderful journey, their employees are making available for them. Involve staff from different areas of EduCo
(13) In some ways, I am still unclear about what the Program is. The sessions which I attended were interesting, however, whilst I understood that this was to be an opportunity, I was less clear about the team role
(14) We need project management skills

**Participant Reaction**

When asked sum up their program experience in two words, the following were mentioned:

<table>
<thead>
<tr>
<th>Informative and collegiate</th>
<th>Exciting, intellectually stimulating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulating and challenging</td>
<td>Focused and insightful</td>
</tr>
<tr>
<td>Enlightening, positive</td>
<td>Creative challenging</td>
</tr>
<tr>
<td>Very challenging</td>
<td>Time consuming and challenging</td>
</tr>
<tr>
<td>Career fillip</td>
<td>Learning more about where I work</td>
</tr>
<tr>
<td>Confusing, challenging</td>
<td>Learning and innovation</td>
</tr>
</tbody>
</table>
Positive, mind-expanding  Exciting and motivational

Number of participants was 15.

Conclusion

Program Two provided benefits on three levels for EduCo: (1) the tangible benefits should again create and maintain sustainable revenue streams from larger, more complex projects when compared to Innovation Program One. As a consequence EduCo should continue strengthen its market share and margins and further strengthen its reputation nationally and internationally by its reputation of creative and innovative approaches to providing educational and training solutions. (2) The cultural change continues with participants from Innovation Program one being promoted because of their abilities displayed and their communication and leadership skills being applauded by the leadership team. These promotions have clearly signalled the rewards for all staff who can contribute to EduCo’s continued success. (3) Market place engagement from the Program resulted in EduCo gaining two large (greater than $500,000) contracts from organisations who have recognised EduCo’s innovative approach in the market place.

EduCo 2006

Program Three 2006

A Different Focus for Program Three

The Innovation Program management team for program One and Two focused on achieving a sustainable EduCo.

The difference in 2006 was that the Innovation Program Three would comprise of only a few large projects that would be selected and subsequently funded to assist and accelerate their progress to becoming a market place reality. It was assumed that without Program Three funding, the projects would take considerably longer to make a market place impact.

The Innovation Program management team also maintained the focus on the aim of the Innovation Program that selected innovation projects must be achievable. Program Three’s projects were
already underway and had moved past the concept stage. In the third Innovation Program, the
Innovation Program management team continued to use the same measurements and the same
survey range of questions.

The creative and innovative potential of staff at EduCo Institute continued to be demonstrated as the
wider leadership group (Manager Level) now modelled enterprising behaviour. The sense of pride
in EduCo had become stronger (as evidenced through qualitative feedback) and it is hoped that this
strengthening will continue to contribute to building a sustainable EduCo.

**Innovation Program Features**

Again, a “loose-tight” strategy was the underpinning practice in the third Innovation Program.
Program Three’s guidelines and rules were kept to a minimum in order to allow a sense of freedom
to encourage creativity and enterprising behaviours to emerge. As the third Innovation Program’s
deadlines became closer, a “tight” or more ordered approach was employed which involved greater
levels of communication between the management groups which asked for short progress reports.
Participants were already in place for Program Three. This year, experienced teams were already
established which accelerated the progress of the innovation projects as it often takes several weeks
if not months for a team to form and then perform. The projects were driven from and by divisions.
The divisional focus provided access to senior and experienced managers to drive these projects and
enhance the likelihood of successful outcomes.

**Measurable Outcomes**

Innovation Program Three continued to build upon the behavioural changes created in Program One
and reinforced in Program Two. These changes emphasised the need to continue to recognise
opportunities, grasp them and turn them into market place outcomes. The acceleration of innovation
projects to achieve implementation was also an important goal of the Innovation Program
management team. Even though the number of survey responses (compared to Innovation Program
One and Two) were lower (in part due to the lesser number of teams), the results continue to
support the strategy for change to create a sustainable EduCo.
Outcomes and Progress

Project 1 Pilot Trialled  Estimated Income $120,000
Project 2 Underway $740,000
Project 3 Underway $1,000,500
Project 4 Underway $240,000
Project 5 Underway $370,000

Participant Reaction

Participants, when asked, summed up their Innovation Program experience in two words as follows:

- Impetus to make things happen
- Opportunity creation
- Challenging innovative
- Stimulating, demanding
- Challenging rewarding
- Networking opportunity
- Very good
- Challenging, fulfilling
- Building enthusiasm
- Hard work
- Aspiration, recognition
- Constructive, networked

Recommendations

(1) A more streamlined reporting process is required
(2) The opportunity for those experienced in enterprising activity to operate with greater autonomy
(3) Workshops in PowerPoint presentations, personal selling and how to write business plans
(4) A little more time please! Keep going with the Program and try new approaches
(5) More preparation time before commencement of the project. Would like to set up a plan prior to commencement. Time from normal duties to devote exclusively, this may have been able to happen if we knew the project was to take place
(6) Timing of the program. It seems as though decisions are made late in the year ready for the beginning of the following year. This particularly so for teachers who need to be released from teaching programs
(7) Do the Innovation Program One format again as it aims at the ‘grass roots” of EduCo
(8) Provide support and training for managers in project management. They then can be linked to a formal qualification
An outline and structure for meetings for the Innovation Program

I had a great time learning and meeting many members of EduCo staff

It has been very good and we hope we get an outcome from it

**In summary**

Program One: Exploring new ways of doing things in a supportive and safe environment. New ways of generating sustainable revenues, leading and motivating people, communicating and sharing success in EduCo. Program Two: A smaller number staff selected by the leadership who were believed to have potential for management, a concentration on external opportunity recognition and an increase in the involvement of the leadership group. Program Three: A few large projects that would be selected and subsequently funded to assist and accelerate their progress to becoming a market place reality. It was assumed that without Program Three funding, the projects would take considerably longer to make a market place impact.

For the statistical analysis testing for significance of the observed changes across time/iterations, please see appendix number

**Conclusion**

Innovation Program Three has contributed further to building on the foundation of enterprising behaviours laid down in Innovation Program One and Two. Cultural change has continued positively and constructively with a commercial and strategic focus demonstrated by all participants. The confidence and energy of Innovation Program participants has continued to grow. The use of the same survey instrument and Innovation Program style has resulted in outcomes and measures that the leadership of EduCo can continue to use to strengthen the organisation.

In Program One there were 16 ‘small’ projects, in Program Two there were 9 ‘medium’ and the final year, Program Three there were 5 ‘large’ projects. Project size determined team size and budget allocated.
These results confirm the initial research questions of the measurement of innovation in large service organisations to identify the measures that are repeatable during a three-year period and to determine if those metrics are valid in two different service organisations. It appears that the measures used in the survey are repeatable after three iterations of the Innovation Program.

The following chart is an example of the results and how the results are presented and interpreted throughout this research.

Question 1: Our organisation is committed to building an “ideas” culture and living the value of “innovation”.

![Bar chart showing results of Question 1](image)

Discussion

Both organisations have highly positive response rates to this question. In some cases in ServCo, there is a natural tendency for caution. This caution is seen to dissipate in Program Two and Three. EduCo has rated very highly due to the clarity of the leadership who on every occasion reinforces these values of innovation and enterprising behaviour.

The opportunity exists for these successful internal communication strategies to be used with customers and clients.
Chapter Five

Conclusions and Implications

Conclusions

The measurement of innovation in large service organisations appears to present many challenges for managers and leaders who have either never attempted to measures or are primarily used to dealing with tangible products.

The challenge for large service organisations is to determine what measures could be used for services.

(1) The first measure is economic growth. Both host organisations continue to conduct creative and innovation programs to facilitate economic growth thereby demonstrating their acceptance of innovation as a measurable and repeatable process.

(2) The second measure is the number of ideas generated to grow revenue or contain costs in both organisations. It should be noted that both host organisations actively maintain environments to increase the number of ideas generated.

To achieve the above key measures, creative thinking, communication and enterprising behaviours are required. As a result of participation in the innovation programs, participant responses are positive (strongly agree) in answering the survey questions that support the thinking and behaviours required to consistently achieve points one and two as stated above.

The analysis of the results of the six years observing and measuring the Innovation Programs at ServCo and EduCo using an action research frame-work, shows that the questions are repeatable in both organisations. Using a series of twenty-three questions that examine skills, mindset, opportunity recognition and behavioural changes after each Innovation Program, the desired changes sought by each organisation have been realised based on the comparative survey data. ServCo and EduCo Innovation Programs were directly compared over the three-year period that they were conducted. It appears that the Innovation Program method has produced similar results in both large service organisations.
The results of this research have also shown that the Innovation Program and the measures used can be transferred from one to another large service organisation with similar (in some cases, identical) results. The following discussion highlights the similarities between the results at ServCo and EduCo. There are also differences based on culture and leadership that have influenced the results of the survey.

The answers to the second survey question (Appendix 5) “You are better able to identify ideas and opportunities that add value to our clients and organisation” have been a highlight in the survey results. In particular, the responses by participants regarding creativity, thinking, confidence and positive communication are evident of a highly positive acceptance of the Innovation Programs and the impact they have had on them and their organisations. ServCo and EduCo were pleased that their investment in their respective Innovation Programs were endorsed as the answers to question 3, “You are more confident at raising new ideas with our management and clients” showed that participants in the Innovation Programs are confident (90%) to communicate with those that may engage in the innovative process. There is an opportunity for both organisations to promote their creative and innovative approaches (externally and internally) in that they provide outcomes for their clients. In question five “Before the Innovation Program, I did not consider myself creative” appears to contradict the answers to question four “Before the Innovation Program, I thought new ideas and innovation were not important to my job”. Respondents believe they are creative and innovative and when joining either organisation they held a view that the organisation was neither creative nor innovative.

The answers to the group of questions concerning organisational management skills (questions 6, 7, 8, 9, 10, 11, 12, 17 and 18) all reflected very positive outcomes. A key feature of enhancing creativity and innovation inside an organisation is the skill to identify, screen, refine and communicate the opportunity at speed. Question 14 highlighted the cultural and hierarchical differences between ServCo and EduCo. ServCo’s participants appear to be comfortable with direction and structure whilst EduCo’s participants are comfortable with peer group discussions. EduCo’s cultural framework appears to be more conducive to the generation of ideas that are developed and implemented.
The remaining areas of interest to ServCo and EduCo were the length of the Innovation Programs, the use of coaches and whether the participants found that their experience during the Innovation Programs was worthwhile.

Participants found that the amount of time allocated to the Innovation Program was never long enough. The program management teams changed the program over the three-year Innovation Program cycle and after each program, participants complained it was still too short. Further investigation revealed that participants were still struggling with the management of time. This was ironic as while the program management teams had offered to all participants over the three years a short course in project management, not one participant thought that the course would be of value!

The use of coaches and resource groups by participants varied between organisations. This can in part be attributed to the cultural differences of ServCo and EduCo. At ServCo, there was a perception that asking for help would be considered by management as indicative that you were not up to the required standard, while at EduCo (a learning environment), it was considered normal to ask for help. ServCo’s program management team invested time and money to make available as many resources as possible for the participants to try to overcome this cultural hurdle.

The final question “I would recommend the Innovation Program to others” was positive and a final endorsement of the programs at ServCo and EduCo.

ServCo and EduCo were adamant that a condition of their participation in this research program was that a set of measures be developed that could be easily calculated, used, communicated and understood by all.

The following research questions developed and agreed upon six years ago with the research program supervisors, the leadership and the Innovation Program management teams of ServCo and EduCo.

(1) How to develop a set of measures to assist the decision making of leaders and managers of large service organisations to manage the creative and enterprising behaviours of their staff.

(2) How to determine within those measures identified, if there is a primary (or lead) set of measures that could be used in other large service organisations to use to measure innovation.
The first research question has been addressed as both organisations continue to support and promote innovation and creativity. This is seen in both organisations in a number of ways.

(1) Both host organisations continue to conduct creative and innovation programs to facilitate economic growth thereby demonstrating their acceptance of innovation as a measurable and repeatable process.
(2) The number of ideas generated to grow revenue or contain costs in both organisations continues to increase.
(3) The Innovation Programs have become institutionalised.
(4) The Innovation Programs are continually refined and applied in different areas of each organisation with less time and effort in the planning and execution stages due to their increased experience and expertise.
(5) The measures developed clearly highlight the positive changes in confidence, communication, opportunity and skills of all those involved. Those positive changes have enabled creative, innovative and enterprising behaviours to be measurable and repeatable outcomes.

The establishment of a set of measures that can be understood by the majority of staff, managers and leaders appears to have been achieved. These measures can be easily calculated, repeated from one program to the next, and can provide benchmark data for Innovation Program performance.

The second research question has been addressed and is supported by:

(1) ServCo’s and EduCo’s responses and actions during their respective Innovation Programs over the two, three-year periods are consistent.
(2) Both organisations found that the second and third programs could be quickly modified to assist in capturing both internal and external opportunities.
(3) EduCo and ServCo are different in terms of business focus and culture, however, both organisations found that the measures were relevant and useful, as the measures did not need modification over the two, three-year periods that their Innovation Programs were conducted.
(4) Both organisations used the action research methodology to gain a deeper insight into how to refine and maximise the results of their Innovative Programs. The action research methodology used was the same in both organisations.
Action Research Methodology as an Enabler

In addition to the development of a set of measures to assist large service organisations to validate their Innovation Programs, ServCo initially questioned the use of the action research methodology. In fact, the program management team resisted the idea of a formal methodology being used. The initial response from one member of the management team was “*Let’s just get on with it, can’t we just get a program and run with it?*” ServCo is an organisation that demands time to be accountable and chargeable and the idea of reflecting and thinking (to whom could this time be charged?) was a challenge in Program One. As can be seen in the preparation and analysis of ServCo’s first Innovation Program, the amount of time utilised and production of planning documents was used as a justification for the time spent overall. There is a marked difference between the project planning and documentation produced between ServCo and EduCo as can be seen in Chapter Four Analysis of the Data. This difference is due to the cultural and operational reporting approaches of both organisations. As ServCo and EduCo went through each action research phase of each program cycle, EduCo was comfortable with the learning from the previous Innovation Program. It quickly incorporated the feedback and experiences and started the next phase with little effort, report writing or extensive meetings. It could be inferred, on this basis, that EduCo learned at a faster rate than ServCo. ServCo was more comfortable with the production of complex reports, numerous meetings and indecision. The indecision was due to the turnover of the decision makers. The program management team at ServCo literally had to start again when a new decision maker was assigned overall responsibility for the Innovation Program causing delays and inefficiencies for the program and participants. So did ServCo learn? The participants embraced the action learning methodology, they enjoyed the ability to provide feedback, to see the changes to the program based on their feedback and to learn from the intensive training and coaching. It seems as though the leadership of ServCo did not embrace the action learning methodology, they certainly invested in that methodology by providing financial and human resources. While they were present at key stages of the Innovation Program they adopted the posture of “*Don’t do what I do, do what I say*”. Conversely, EduCo’s leadership provided the investment and participated throughout every stage of each Innovation Program, they did the reverse of ServCo, and modelled “*Do what I do*”.

Another initial challenge for ServCo’s program management team was concerned with whether there was sufficient time for the planning and evaluation phase of the action research cycle. The concern about sufficient time was due to not understanding the action research methodology itself. When the methodology was explained and understood, the program management team quickly
realised that the action research methodology could compliment ServCo’s culture and reputation was based on planning and action. The action research methodology was outlined in the four elements of diagnosing, planning an implementing, reflection / evaluation phases. The diagnostic and evaluation phases were introduced and accepted at ServCo. It is interesting to note that ServCo embraced action research and this methodology has been applied widely across the organisation.

EduCo was familiar with action research as a management tool as it was commonly used by the organisation and the methodology was taught to its students and clients. The leadership at EduCo applied their understanding and experience of the methodology and built this experience into their Innovation Programs.

The literature review has highlighted a diversity of discussion ranging from Storey and Kelly (2001) and Sundbo (1997) who state there is a need for the measurement of service innovation, as it is required to contribute to the successful development of strategy. This identified need has seen Stevens and Dimitriadis (2005) develop a generic service innovation model highlighting that measurement is a requirement at various stages. A further refinement of by Kuckzmarski (2000) sees the management of a measuring system of innovation suitable metrics and measurement periods and to develop a process for collecting the data that works for the organisation and Shapiro (2006) suggests measuring the levels of innovation is difficult to do well with a single measure as innovation outputs can be realised in many different ways for example, revenue from new products and revenue from new platforms.

The results of the action research program conducted at ServCo and EduCo over six years appears to be supported by the above research in the measurement of innovation in the service sector.

Implications

The simplification of definitions or explanations concerning what is innovation, creativity or enterprising behaviour may mean that once an accepted understanding of a term is widespread, there will be examples of innovation that will fall outside the accepted explanation. This in turn could cause individuals in organisations to become uncertain or uncomfortable based on the perception that there is not one neat answer. It can be argued that the simpler the explanation, the more likely a beneficial outcome will result. A simply communicated direction and focus about an Innovation Program and what innovation is in terms of a specific organisation’s level of
understanding of and appetite for creativity and innovation then should assist it to keep an opportunity or process on track and, indeed, increase the likelihood of a beneficial outcome.

During the designing and planning phase of this research program, both host organisations were interviewed. Two questions, deliberately provocative, were posed during these initial interviews, “Who is creative?” and “What have you done recently at work that you think is creative?” The majority (88%) of respondents said they were not creative and that they were not creative at work. When an explanation was proposed, including Fottel’s (1951) that might apply to creativity, then nearly 94% respondents stated that they were creative and were creative at work! It appears that those answering the interview questions were far more comfortable when provided with a precise explanation of the term creativity. These responses ensured that the design of the Innovation Programs relied on high level direction and avoided specific instruction to create a framework where participants could explore their creative potential.

Invention is often confused with the term creativity.

Almost all respondents interviewed (96%) stated that they regularly interchange the terms invention and creativity, often within the same sentence. This is based on a view that they are the same, as evidenced by respondent statements, “Well, it’s all the same isn’t it?” When asked “What’s all the same?” the respondents replied, “We use these words at work to tell each other, our managers and stakeholders that we are creative and inventive, after all they don’t know what it is!” These attitudes and perceptions, held about creativity and invention and their explanations, seem to contribute to why some service organisations do not embrace a growth strategy using creative and innovative strategies and tactics.

The enterprising concept is sometimes referred to as “corporate entrepreneurship” in organisations. (Often the term intrapreneur is difficult to pronounce and define and thus avoided in the organisational vocabulary.) The use of the term “intrapreneur” in Australia and New Zealand is often greeted with a smile, ridicule or much worse! Leaders and managers seem to be still coming to terms with change management, business process re-engineering, Six Sigma to name a few popular management models and now this term “intrapreneurship” has been introduced. One manager in New Zealand stated “It’s not a word is it?” Intrapreneurs, or those individuals that have recognised an opportunity, have the skills, pragmatism and passion to lead a team to a successful outcome. They are really entrepreneurs working within a fairly well defined internal market, with
access to far greater resources than an entrepreneur, operating in a start up mode outside the organisation.

The many and varied explanations of innovation may be contributing to the challenges that organisations have with the measurement of service innovation. Organisations facing complex agendas and varied stakeholder demands are comfortable measuring innovation that only concentrates on similar financial metrics for the rest of the organisation’s core business. The avoidance of using other measures of innovation is compounded by a certain level of scepticism as leaders have said to the researcher, “If you can’t measure innovation, how do you manage it?” The challenge of the measurement of innovation in large service organisations is part of, and contributes to, overall organisational performance. In observing the measurement of innovation in large service organisations, the evidence produced from the Innovation Programs is that new income streams and/or the reduction of operational costs will provide leaders or managers with the necessary facts (results) to manage the perceived risk.

The terms creativity, innovation and entrepreneurship often invoke emotional and sometimes defensive reactions amongst business leaders and managers. There appears to be an acceptable or anecdotal view of these terms used in large service organisations. One comment from a senior manager supports this view. “Creativity and innovation, yes we all need it and we all need to try and grow our organisations however, it’s much easier to cut and prune, the results are immediate; growth takes too long, after all, I am measured on a weekly and monthly timeframe; creativity and innovation take ages.”

The above view could be challenged. The measures examined in this research program, have continued to be developed, refined and tested in several large service organisations in Australia and New Zealand. The results from this research program are beginning to assist these leaders and managers to quickly dispel the anecdotal reasons why innovation cannot be measured and provide those using creative and innovative processes with a series of measures that are defensible. These measures begin to provide the basis of organisational performance data that can assist leaders and managers to adjust their strategies and tactics to maintain a pathway where growth can occur.

Considerable effort, discipline and a management system needs to be present to create and stimulate an environment conducive to creativity. When organisations are faced with choices of either pursuing the creation of an innovative culture or maintaining the status quo, management invariably
choose the latter as the perceived risk is lower. The reasons given include that its too hard, requires too much effort and there is no available time. When survey respondents from the host organisations were asked what they think innovation is, their responses often included “It’s the same as creativity, its invention, doesn’t innovation only happen with products?” It appears that when working with large service organisations, presenting a very simple approach, such as, “Innovation is making something happen that has a benefit”, resonates with many managers and leaders.

In conclusion, management when considering innovation programs demanded simple processes and measures that do not add yet another layer of administrative process on to their organisations and give them indicators for growth that all in the organisation can understand. The set of measures designed, developed and tested over two, three-year periods in the host organisations offers defensible organisational performance data to support a growth strategy based on innovation and creativity and provides an opportunity for further research in this area.

**Areas for Future Research**

During the course of this study a number of questions arose that could be expanded to compliment what has already been done.

One question when considering areas for future research is “Why do Australian and New Zealand leaders of organisations currently demonstrate increasing conservatism and a resistance to make decisions that involve the slightest degree of risk?” Many of these leaders are focused on corporate governance and compliance. It also appears that good corporate governance may be used for an excuse for not taking calculated or indeed, any risks. A calculated risk is at the basis of most organisational decision making – when the terms, creativity, innovation and enterprise are mentioned, perceived risk increases – why?

It could be inferred from this current management practice that any new idea will not be seriously considered, therefore, examining and embracing of new ideas by organisations is seen as risky and could affect what is considered good corporate governance. The opportunity to research the impact on innovation of current risk management practices and corporate governance policy in large service organisations may reveal additional ways management can develop the potential for growth whilst satisfying the current Australian regulatory regime.
A secondary question for future research is the examination of the differences, if any between enterprising (creativity and innovation outputs) activities in organisations that produce products and those that produce services. The investigation of this question may reveal there are similarities that could assist both product and service based organisations generate new forms of revenue. These activities may contribute to the medium to long growth strategies of product and service based organisations.

In addition to the above research opportunities, the review of the literature has highlighted the need for further research in the measurement of innovative organisational activity in the service sector. The challenge with a prescriptive approach to measuring innovation (indeed it seems that many researchers are searching for literally, one set of measures to fit all organisations), is that the cultural, economic, political and technological environments of an organisation change constantly. The challenge with the measurement of innovation is that the measures chosen by organisations have to be sufficiently flexible to be relevant during these changes. The measures should consist of sufficient variety to enable an organisation in a turbulent market place to be proactive and therefore increase its strategic choices for growth.
References


Christiansen, J. (2000). *Building the innovative organisation: Management systems that encourage innovation*, Macmillan, Basingstoke, UK.


Appendix One

ServCo’s Survey Instrument

Notes:

(1) This survey script was transferred to an electronic spreadsheet and completed via ServCo’s intranet.

(2) The participants made single selection using a six point Likert Scale comprising of the following response choices:

- Strongly Disagree
- Disagree
- Disagree Slightly
- Slightly Agree
- Agree
- Strongly Agree

(3) Questions 13, 15 and 16 had a selection scale specific to each question.

- Don’t Know
- Just Right
- Too Long
- Too Short

Question 14 used:

- At Team Meetings
- From Talking to Managers and Leaders
- Resource group
- Workshop
- ServCo Themes
ServCo Survey Innovation Program Questions

1. ServCo is committed to building an “ideas” culture and living the value of “innovation”.
2. You are better able to identify ideas and opportunities which add value to our clients business.
3. You are more confident at raising new ideas with ServCo’s management and clients.
4. Before the Innovation Program, I thought new ideas and innovation were not important in my job.
5. Before the Innovation Program, I did not consider myself as creative.
6. The Innovation Program has further developed my knowledge and understanding of ServCo’s products and services.
7. The Innovation Program has further developed my skills and knowledge in how to research and interpret client issues.
8. The Innovation Program has further developed my skills and knowledge in teamwork.
9. The Innovation Program has further developed my skills and knowledge in creativity and idea generation.
10. The Innovation Program has further developed my skills and knowledge in networking and relationship building.
11. The Innovation Program has further developed my skills and knowledge in business case proposal development.
12. The Innovation Program has further developed my skills and knowledge in presentation skills.
13. The Innovation Program length was.
14. Our team came up with the idea.
15. How do you rate the amount of time you had for idea generation?
16. How do you rate the amount of time you had for idea development and proposal generation?
17. The team profile assisted out team to work together efficiently.
18. Our team found the web database useful.
19. Our team found the communication database useful.

20. I believe there was sufficient understanding of the innovation program in my work Unit.

21. My managers were helpful and supportive of the Innovation Program.

22. Our team made good use of our coach.

23. Our team made good use of the resource group.

24. The Innovation Program management team was approachable and helpful.

25. I would recommend the Innovation program to others.
Appendix Two

ServCo

Innovation Programs Participant Response Charts

Chart 1
Question 1: ServCo is committed to building an “ideas” culture and living the value of “innovation”.

![Question 1 Chart]

Chart 2
Question 2: You are better able to identify ideas and opportunities which add value to our clients business.

![Question 2 Chart]
Chart 3
Question 3: You are more confident at raising new ideas with ServCo’s management and clients.

Chart 4
Question 4: Before the Innovation Program, I thought new ideas and innovation were not important in my job.
Chart 5
Question 5: Before the Innovation Program, I did not consider myself as creative.

![Chart 5: Question 5](image)

Chart 6
Question 6: The Innovation Program has further developed my knowledge and understanding of ServCo’s products and services.

![Chart 6: Question 6](image)
Chart 7
Question 7: The Innovation Program has further developed my skills and knowledge in how to research and interpret client issues.

Chart 8
Question 8: The Innovation Program has further developed my skills and knowledge in teamwork.
Chart 9
Question 9: The Innovation Program has further developed my skills and knowledge in creativity and idea generation.

Chart 10
Question 10: The Innovation Program has further developed my skills and knowledge in networking and relationship building.
Chart 11
Question 11: The Innovation Program has further developed my skills and knowledge in business case proposal development.

Chart 12
Question 12: The Innovation Program has further developed my skills and knowledge in presentation skills.
Chart 13
Question 13: The Innovation Program length was.

![Chart 13: The Innovation Program length was.](chart13)

Chart 14
Question 14: Our team came up with the idea.

![Chart 14: Our team came up with the idea.](chart14)
Chart 15
Question 15: How do you rate the amount of time you had for idea generation?

![Chart 15](image)

Chart 16
Question 16: How do you rate the amount of time you had for idea development and proposal generation?

![Chart 16](image)
Chart 17
Question 17: The team profile assisted our team to work together efficiently.

Chart 18
Question 18: Our team found the web database useful.
Chart 19
Question 19: Our team found the communication database useful.

![Chart 19](image1)

Chart 20
Question 20: I believe there was sufficient understanding of the Innovation Program in my work unit.

![Chart 20](image2)
Chart 21
Question 21: My managers were helpful and supportive of the Innovation Program.

![Chart 21]

Chart 22
Question 22: Our team made good use of our coach.

![Chart 22]
Chart 23
Question 23: Our team made good use of the resource group.

<table>
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<th>2003</th>
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<td>1</td>
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<tr>
<td>Disagree</td>
<td>10</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
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<td>14</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Slightly Agree</td>
<td>34</td>
<td>39</td>
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<td>Agree</td>
<td>33</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>8</td>
<td>4</td>
<td>6</td>
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</table>

Chart 24
Question 24: The Innovation Program management team was approachable and helpful.

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<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
<th>2001</th>
</tr>
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<tbody>
<tr>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Disagree Slightly</td>
<td>15</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Slightly Agree</td>
<td>51</td>
<td>49</td>
<td>47</td>
</tr>
<tr>
<td>Agree</td>
<td>29</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>
Chart 25
Question 25: I would recommend the Innovation Program to others.
Appendix Three

EduCo’s Survey Instrument

Notes:

(1) The participants made single selection using a six point Likert Scale comprising of the following response choices:

- Strongly Disagree
- Disagree
- Disagree Slightly
- Slightly Agree
- Agree
- Strongly Agree

(2) Questions 13, 15 and 16 had a selection scale specific to each question.

- Don’t Know
- Just Right
- Too Long
- Too Short

Question 14 used:

- At Team Meetings
- From Talking to Managers and Leaders
- Resource group
- Workshop
- ServCo Themes

(2) This survey has two questions less than ServCo’s. In fact, Questions 16, 17 & 18 on the ServCo survey instrument were combined due to technology limitations at EduCo.
EduCo Survey – Innovation Program Questions

1. Innovation is an essential part of our organisation and its future growth.
2. As a participant in the Innovation Program you are now better able to identify ideas and growth opportunities for EduCo.
3. As a participant of the Innovation Program, I am now confident to bring new ideas and opportunities for EduCo to my manager and leaders.
4. Before the Innovation Program, I thought new ideas and innovation was not important in my job.
5. Before the Innovation Program, I did not consider myself as creative.
6. The Innovation Program has further developed my knowledge and understanding of our organisation.
7. The Innovation Program has further developed my skills and knowledge in market research.
8. The Innovation Program has further developed my skills and knowledge in teamwork.
9. The Innovation Program has further developed my skills and knowledge in creativity and idea generation.
10. The Innovation Program has further developed my skills and knowledge in networking and relationship building.
11. The Innovation Program has further developed my skills and knowledge in project proposal development.
12. The Innovation Program has further developed my skills and knowledge in presentation skills.
13. The journey length so far.
14. I came up with the project idea……
15. How do you rate the timing between the approvals (first round) of your project from your major presentation?
16. How do you rate the timing between the two-day briefing and the presentation of your project?
17. I have found the tools helpful.
18. I have found the workshops (finance, marketing, systems etc) helpful.
19. My manager understands and supports my role in the Innovation Program.
20. My coach has assisted me greatly.
21. Resource group has assisted me greatly.
22. The Innovation Program management team was approachable and helpful.
23. I would recommend the Innovation Program journey to others.
Appendix Four

EduCo

Innovation Programs Participant Response Charts

Chart 26
Question 1: Innovation is an essential part of our organisation and its future growth.

Chart 27
Question 2: As a participant in the Innovation Program you are now better able to identify ideas and growth opportunities for EduCo.
Chart 28
Question 3: As a participant of the Innovation Program, I am now confident to bring new ideas and opportunities for EduCo to my manager and leaders.

![Question 3 Chart](chart28.png)

Chart 29
Question 4: Before the Innovation Program, I thought new ideas and innovation was not important in my job.

![Question 4 Chart](chart29.png)
Chart 30
Question 5: Before the Innovation Program I did not consider myself as creative.

![Chart 30](image)

Chart 31
Question 6: The Innovation Program has further developed my skills and understanding of our organisation.

![Chart 31](image)
Chart 32
Question 7: The Innovation Program has further developed my skills in market research.

Question 7

<table>
<thead>
<tr>
<th>Percentage</th>
<th>2006</th>
<th>2005</th>
<th>2004</th>
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</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
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<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Disagree</td>
<td>28</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Disagree Slightly</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Slightly Agree</td>
<td>3</td>
<td>2</td>
<td>9</td>
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<tr>
<td>Agree</td>
<td>59</td>
<td>57</td>
<td>28</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>24</td>
<td>21</td>
<td>22</td>
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Chart 33
Question 8: The Innovation Program has further developed my skills and knowledge in teamwork.

Question 8

<table>
<thead>
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<th>Percentage</th>
<th>2006</th>
<th>2005</th>
<th>2004</th>
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<tr>
<td>Strongly Disagree</td>
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<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>22</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Disagree Slightly</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Slightly Agree</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Agree</td>
<td>59</td>
<td>57</td>
<td>44</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>18</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>
Chart 34
Question 9: The Innovation Program has further developed my skills and knowledge in creativity and idea generation.

Chart 35
Question 10: The Innovation Program has further developed my skills in networking and relationship building.
Chart 36
Question 11: The Innovation Program has further developed my skills and knowledge in project proposal development.

Chart 37
Question 12: The Innovation Program has further developed my skills and knowledge in presentation skills.
Chart 38
Question 13: The journey length so far.

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
<td>Don't Know</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Just Right</td>
<td>18</td>
<td>21</td>
<td>39</td>
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<tr>
<td>Too long</td>
<td>12</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Too Short</td>
<td>65</td>
<td>57</td>
<td>61</td>
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Chart 39
Question 14: I came up with the idea.

<table>
<thead>
<tr>
<th>Source</th>
<th>2004</th>
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<tr>
<td>I had the idea</td>
<td>6</td>
<td>7</td>
<td>65</td>
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<tr>
<td>From the Workshop</td>
<td>18</td>
<td>7</td>
<td>72</td>
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<tr>
<td>Colleagues</td>
<td>6</td>
<td>6</td>
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<td>Managers</td>
<td>21</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Leaders</td>
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<td>0</td>
<td>7</td>
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</tbody>
</table>
Chart 40
Question 15: How do you rate the timing between approvals (first round) of your project from your major presentation?

![Question 15 Diagram]

Chart 41
Question 16: How do you rate the timing between the two-day briefing and the presentation of your project?

![Question 16 Diagram]
Question 17: I have found the tools helpful.

![Bar chart for Question 17](chart42.png)

Question 18: I have found the workshops (finance, marketing, systems etc) helpful.

![Bar chart for Question 18](chart43.png)
Chart 44
Question 19: My Manager understands and supports my role in the Innovation Program.

![Chart 44](image)

Chart 45
Question 20: My Coach has assisted me greatly.

![Chart 45](image)

Chart 46
Question 21: The Resource Group assisted me greatly.

![Question 21 Chart](chart.png)

Chart 47

Question 22: The Innovation Program Management team was approachable and helpful

![Question 21 Chart](chart.png)

Chart 48
Question 23: I would recommend the Innovation Program journey to others.

**Question 22**

The chart shows the percentage of respondents agreeing with the statement from 2004 to 2006. The chart is divided into Strongly Disagree, Disagree, Disagree Slightly, Slightly Agree, Agree, and Strongly Agree categories. The percentages are as follows:

- **2004**:
  - Strongly Disagree: 0%
  - Disagree: 0%
  - Disagree Slightly: 3%
  - Slightly Agree: 3%
  - Agree: 59%
  - Strongly Agree: 67%

- **2005**:
  - Strongly Disagree: 3%
  - Disagree: 3%
  - Disagree Slightly: 3%
  - Slightly Agree: 4%
  - Agree: 64%
  - Strongly Agree: 35%

- **2006**:
  - Strongly Disagree: 3%
  - Disagree: 3%
  - Disagree Slightly: 3%
  - Slightly Agree: 4%
  - Agree: 29%
  - Strongly Agree: 28%

Appendix Five
A Comparative Study of ServCo and EduCo

The survey instrument contained 23 questions. All participants of Innovation Programs One, Two and Three as well as all those connected with these programs in the respective host organisations participated in this survey. Each question will be examined and key findings discussed.

EduCo and ServCo Combined Chart Comparison

Years 2001 to 2006

The emphasis of each chart is outlined and if there were any alterations or interventions by the innovation management team over the respective Innovation program period, this was noted. The comparison of the results over a six-year period has shown similarities that are consistent across the period of research.

The ability of both organisations to use these results to consistently tune and retune after each Innovation Program has demonstrated the confidence in the measures being tested by the host organisations.
Discussion

Both organisations have highly positive response rates to this question. In some cases in ServCo, there is a natural tendency for caution. This caution is seen to dissipate in Program Two and Three. EduCo has rated very highly due to the clarity of the leadership who on every occasion reinforces these values of innovation and enterprising behaviour.

The opportunity exists for these successful internal communication strategies to be used with customers and clients.
Chart 50
Question 2: You are better able to identify ideas and opportunities that add value to our clients and organisation.

Discussion

Participants from both organisations agree with this question and show a similar level of response. There is a slight tendency of ServCo’s participants to be more positive than that of EduCo. The reason can be attributed to more experienced participants in the second and third years at EduCo, this experience has resulted in a slightly less positive result.

The opportunity exists in both host organisations for leaders and managers to model the desired behaviours of co-operation and information sharing.
Chart 51
Question 3: You are more confident at raising new ideas with our management and clients.

![Chart 51: Question 3](chart.png)

**Discussion**

This question examines the level of confidence participants have after training and working with senior managers or leaders. The rationale of the Innovation Program was in part, to break down any real or imagined fears for staff (new to the organisation or inexperienced) and for them to be comfortable with bringing their ideas to the senior managers and leaders of the organisation.

It appears that EduCo seems to more comfortable approaching or working with senior staff. This could be attributed to ServCo’s hierarchical and power based structure, while EduCo is relatively flat and open.

The opportunity exists for managers and leaders to continue to enhance their skills to empathise with new or inexperienced staff to allow those staff to quickly gain confidence and realise their potential for innovation and creative thought.
Chart 52
Question 4: Before the Innovation Program, I thought new ideas and innovation were not important in my job.

Discussion

The rationale of this question was to determine what perspective the participant had of their specific job and if the Innovation Program contributed to any change in this perspective. It is of interest to note that ServCo has considerably more participants who think that their roles do not require innovation prior to completing the Innovation Program.

If this chart is compared to the answers in question one, a reversal of this perspective has been achieved.
Discussion

EduCo’s participants believe strongly that they are creative and this has been demonstrated in the variety of innovative projects produced over the three years. Conversely, ServCo’s participants have displayed conservatism and this maybe considered culturally acceptable within their professional environment.
Chart 54
Question 6: The Innovation Program has further developed my knowledge and understanding of our organisations products and services.

Discussion

This question aimed to gain an understanding of the participant’s organisational awareness. The ability of a participant to understand the connections and thus the possibilities of developing new ideas is an imperative for both host organisations. The responses to this question are an endorsement of the Innovation Program’s focus on participants gaining a deep understanding of the organisation and its products and services.

The reaction of participants of both organisations’ efforts clearly demonstrates the on-going need to create organisational awareness. The opportunity exists to continue to provide as many opportunities as possible for staff to benefit from this initiative.
Chart 55

Question 7: The Innovation Program has further developed my skills and knowledge in how to research and interpret client issues.

Discussion

The difference in responses to this question highlight the research skills present at EduCo; a part of the participants’ job prerequisites. When compared to ServCo, it appears that participants at EduCo understand the skills required to conduct research whereas at ServCo they may not be given the opportunity to conduct research. Both host organisations collect and add value to information for three reasons, to benefit the organisation and create advantage, and to add further value to their clients and customers. Consequently, each host organisations has identified the notion of a “knowledge organisation” as a future part of their communication strategies.
Chart 56

Question 8: The Innovation Program has further developed my skills and knowledge in teamwork.

Discussion

The outcomes for this question demonstrate that working in groups and developing the skills to make those groups perform has been a benefit to both host organisations. The responses at EduCo and ServCo clearly demonstrate the advantages of teamwork. In EduCo, the staff mostly works in isolation resulting in the smaller percentages representing the negative in this chart. The restructuring at EduCo has also resulted in professional relationships and teamwork being either disrupted or completely fragmented, thus contributing to the slightly negative responses of EduCo participants.
Question 9: The Innovation Program has further developed my skills and knowledge in creativity and idea generation.

Discussion

The answers to this question clearly demonstrate that the Innovation Programs have been beneficial to participants. It is interesting to see some slight disagreement in EduCo, as many participants are in “creative” professions such as art, music or graphics. This is interesting because those staff that did not believe that creativity was necessary to identify opportunities and turn them into marketable opportunities, had the highest level of difficulty in creating services for commercial outcomes. In part, there was still some confusion at EduCo of the terms of creativity, innovation and entrepreneurship. Some members of staff in the “creative” areas took offence that their “art” should be commercialised. This mindset was discussed and managed well by the Innovation Program management team by constantly going back to the working terms and demonstrating that compromise was not required as both artistic independence and commercial outcomes could be achieved.
Chart 58

Question 10: The Innovation Program has further developed my skills and knowledge in networking and relationship building.

Discussion

The majority of participants agree with this question. This question has a direct link with question six. It can be seen that the percentage of those who disagree with this question are very similar to those who disagree with question six: “increased my understanding of the organisation and its products and services”. In both organisations, new staff and inexperienced staff were supported to overcome the perceptions (in some cases myths and stories) that they kept their heads down and were only there to do their job. In fact, the Innovation Program demonstrated that they were part of a large organisation and were expected to contribute across that organisation.
Chart 59
Question 11: The Innovation Program has further developed my skills and knowledge in Business Case proposal development.

Discussion

The negativity in EduCo shown in the responses to this question is due in part to some participants being involved in a restructure. Their area was in fact concerned with the writing of business proposals. Several other members of EduCo were very experienced in proposal writing. For the majority, the understanding gained by participating in the Innovation Program of how to develop a business case or proposal is clear.
Chart 60  
Question 12: The Innovation Program has further developed my skills and knowledge in presentation skills.

Discussion

The participants in EduCo are constantly making presentations in an educational environment, thus the negative responses can be attributed to this factor. It was interesting to observe their skills when placed either, before their peers, manager, or leaders. The standard of presentation skills was commercially or professionally unacceptable whereas their perception of their presentation skills was higher. At ServCo, these skills were considered vitally important and the participants took the training very seriously, holding the view that every opportunity to participate in training and practice would assist ServCo to communicate effectively internally and externally.
Discussion

The majority of participants found that the Innovation Programs were too short. The Innovation Program management teams were constantly under pressure to allow more time for the programs. The answers to this question are paradoxical. Participants in both host organisations are used to working hard and for long hours and are used to accepting additional work. When asked why this was different, and thus the negative responses, the answers included “it’s new and I have to think”.
Discussion

These results are indicative of the differences in the cultures at EduCo and ServCo. The answers also demonstrate the changes in the Innovation Programs One and Two because of reflection and diagnosis from Program One. The cultural differences highlight that EduCo is comfortable with peer discussions whilst ServCo is more comfortable with more structured environments such as the workshops and team meetings. The major change in the Innovation Program Two at EduCo was the introduction of managers as participants, where it is clearly seen that interaction with colleagues increases and team participation decreases.
Chart 63
Question 15: How do you rate the amount of time you had for idea generation?

Discussion

When asked this question it appears that the respondents believe that there is never enough time. The programs were extended every year. When asked how long the program should be, there was no response from the participants. This was difficult for the Innovation Program management teams as the challenge of not having enough time often became the point of many conversations, when perhaps the focus should have been on growing opportunities.

The opportunity for participants to generate ideas in both host organisations was presented in the form of professional development workshops, conducted during all Innovation Programs. Did this lack of up take contribute to never enough time perception? In particular, the opportunity to participate in project and time management workshops was not taken advantage of in either organisation.
Chart 64
Question 16: How do you rate the amount of time you had for idea development and proposal generation?

Discussion

The answers to this question highlight the perception of time, job demands and overall focus on the accomplishment of a project. ServCo’s staff is constantly under considerable pressure to deliver work at short deadlines. EduCo’s staff does not have this same pressure. As can be seen, the perception of having something extra to do demonstrates, or is responsible for, two opposing views. The challenge of Innovation Program managers is to clearly manage expectations of what is to be achieved and when, early in the program.

The participants in both host organisations were given the opportunity to participate in professional development workshops during all Innovation Programs; in particular, project and time management workshops were not taken advantage of in either organisation.
Question 17: I found the tools helpful.

Discussion

The skill development workshops introduced a variety of tools that included marketing, negotiation, research, business case creation, project management and costing. Participants at EduCo have benefited from training in these tools. Participants at ServCo are highly trained before joining ServCo and therefore they may have considered that they did not require this additional training. The opportunity for Innovation Program managers is to conduct a skills audit (gap analysis) to ensure provision of relevant skill development opportunities for participants.
Question 18: The workshops were helpful.

Discussion

The workshops provided additional time for teams to form and work together. The concepts of creativity, innovation and enterprising behaviours were also introduced. The workshops were designed to be free flowing with minimal structure to encourage thinking and innovative behaviours. Participants from ServCo were uncomfortable with the lack of structure. The Innovation Program managers were tempted to explain each step of the Innovation Program to participants through comprehensive communication plans which would have restricted participant’s freedom of creative thought and behaviour. The challenge for the Innovation Managers was to achieve a careful balance between a very loose (chaotic) program and one where there are strict structures with little room for innovative behaviours, which underpin the Innovation Program itself.
Question 19: My managers were helpful and supportive of the Innovation Program.

Discussion

The role of the manager in an Innovation Program is vital. Participants who have managers that either do not understand the program or do not support it will quickly stop the participant from actively engaging in the program. At both host organisations considerable time and effort was spent communicating with managers why they should support and endorse their staff participating in the Innovation Programs. The responses to the above question can be attributed to managers not being included in the first year of the programs, thus resulting in a slight increase in negative feedback.
Question 20: Our team made good use of our coach.

Discussion

In the first year of the Innovation Program at ServCo, the role of coach was not clearly outlined and the choice of the coach was on some occasions poor as the Coaches were self-selecting. The Innovation Program managers did not take into account the coach’s organisational experience. The resultant inexperience was quickly highlighted and some participants were amused, insulted or annoyed that for example someone so young should be advising them. In the case of EduCo, the lessons learned from ServCo were recognised and only those of considerable organisational experience were selected as coaches.
Discussion

The resource group comprised of people from inside and outside the host organisations. Members of the resource group were often seen as safe and not aligned to any particular department or manager. The resource group members were used extensively by all participants and were found to provide many tips or hints to assist participants progress their ideas through the large organisations. There was a degree of suspicion at ServCo however, as many of the resource group members were seen as friends of the participants’ managers or directors. EduCo had the opportunity to learn from this lesson and the program managers ensured therefore that there was no link or possible conflict of interest between resource group members and participants.
Discussion

The response to this question is positive overall, with EduCo participants demonstrating they have more relationships that are positive with their managers than their counterparts at ServCo. At both host organisations, the results displayed have shown improvement over the three-year period.
Question 23: I would recommend the Innovation Program to others.

**Discussion**

The answers to this question are in the majority, positive. The second Innovation Program at EduCo saw the introduction of an organisational restructure, which directly affected some participants resulting in a slight increase in negative responses. Apart from this, the results clearly show that participants would participate in future Innovation Programs to identify further opportunities for both organisations.
Conclusion

The analysis of the results of the six years observing and measuring the Innovation Programs at ServCo and EduCo using an action research framework, appear to have produced results that are repeatable in each host organisation. Using a series of twenty-three questions that examine skills, mindset, opportunity recognition and behavioural changes after each Innovation Program, the desired changes sought by each organisation have been realised based on the comparative survey data. ServCo and EduCo Innovation Programs were directly compared over the three-year period that they were conducted. It appears that the Innovation Program method has produced similar results in both large service organisations.

The two research questions: (1) which measures could assist the organisations understand whether the Innovation Program was a success or not? and, (2) has there been any change in the way the organisation viewed their staff in terms of innovative or creative behaviour? were examined and the results of the surveys provide the answers both organisations were seeking. It is clear that the first question has been addressed by the establishment of a straightforward set of measures that can be understood by the majority of staff, managers and leaders. These measures can be easily calculated, repeated from one program to the next and can provide benchmark data for Innovation Program performance. The results of this research have also shown that the Innovation Program and the measures used can be transferred to another large service organisation with similar (in some cases, identical) results.

The answers to the second question “You are better able to identify ideas and opportunities that add value to our clients and organisation” have been a highlight in the survey results. In particular, the responses by participants regarding creativity, thinking, confidence and positive communication are evident of a highly positive acceptance of the Innovation Programs and the impact they have had on them and their organisations.
Appendix Six

Table 19

Statistical analysis testing for significance of the observed changes across time/iterations.

ServCo

<table>
<thead>
<tr>
<th>Chi Squared Test</th>
<th>Yr 1 c/w Yr 2</th>
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<td>0.4394</td>
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**Appendix Six**

**Table 20**

Statistical analysis testing for significance of the observed changes across time/iterations.

**EduCo**

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