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Is the Open Organisations Profile a valid and

reliable measure of openness in organisations?

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Approvals

This thesis is submitted to Bond University in fulfilment of the requirement is for the

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This thesis represents my own work and contains no material which has been

previously submitted for a degree or diploma at this University or any other institution,

except where due acknowledgement is made.

Signature: Date:

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Until you live through the challenges of writing a thesis, you do not realise how many people are behind the finished product, how generous they are with their time and expertise, and how important they are to bringing a thesis to life. I believe we all have a set of assumptions that drive our thinking, actions, relationship and personality in our day-to-day life. Some people choose to study aspects of these assumptions in the form of a thesis, other prefer to constantly test their assumptions in real life situations and continue to learn and grow while others choose to let their untested assumptions drive them slowly insane and start to ask question like, isn't there more to life? I want to be happier.

I have chosen to explore some of my assumptions about how organisations work in this thesis. Therefore, I would like to thank the following people:

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Abstract

This study is primarily about the Open Organisations Profile, a questionnaire developed in the United States by Professor Oscar Mink (1991) to assess openness in the workplace and thus assist in decisions on organisational change and development. The Open Organisations Profile was developed as an assessment tool of the Open Organisations theoretical model. The Open Organisations Model offers researchers a lens to assess an organisational system and the system's ability to adapt to internal and external changes in its environment, while maintaining a sense of unity.

While the Open Organisations Profile has been used extensively in Australia and the United States of America, limited research has examined its psychometric properties. This current set of studies aimed to examine the psychometric qualities of the instrument. The first study examined the reliabilities and factor structure of the Open Organisations Profile. Results indicated that the Open Organisations Profile displayed high internal consistency ranging from r = .80 to r = .95. Furthermore confirmatory factor analysis (CFA) confirmed the theoretical three factor model of unity, internal responsiveness and external responsiveness.

The second study assessed cultural differences and similarities between Australia and American using the profile. The findings suggested that significant differences existed between the countries and also between male and female values across the nine dimensions measured.

The final study examined the relationships between the three higher order factors of openness and customer satisfaction and sales performance. The study found

that the three factors of openness had a mediating effect on customer satisfaction and sales performance.

The three studies showed the Open Organisation Profile offers researchers a reasonably reliable and valid instrument for assessing the openness of an organisation and its ability to adapt to internal and external changes in the organisation's environment. Furthermore, the Open Organisations Profile could be used as guide to the areas that need to be addressed to help the organisation improve service delivery, customer satisfaction and financial return.

Chapter 1

Introduction

The purpose of this dissertation was to explore the Open Organisations Profile, a questionnaire developed by Professor Oscar Mink (1991). Professor Mink developed the Open Organisations Profile in response to the theory that an open system is more adaptive and responsive to change than a closed system.

Organisations must develop a change capability that allows them to adapt quickly to changes in the external environment while people inside the organisation reorganise to meet these changes while delivering on the purpose of the organisation.

Furthermore, research conducted by Argyris (2006) found that until leaders understand their own mental models they are likely to be the single biggest constraint to organisational change and transformation because they are already making choices and limiting the possibilities because they are not aware of their existing mental models.

Argyris (2006) suggests that as soon as leaders become self aware of their existing mental models and the possibility of thinking and acting in other ways, the range of strategies for intervening in their organisational system increase exponentially. Furthermore, the choices available to them and their staff are dramatically broadened.

This is the fundamental basis of Open Systems thinking and practice. This dissertation comprised three studies to assess Mink's (1995) Open Organisation Profile in the context of Open Systems Theory."

The first study assessed the reliability and internal validity of the Open Organisations Profile. The second study compared data sets from Australian and American organisations to identify similarities and differences across the nine

dimensions and three key categories measured by the Open Organisations Profile. The third study correlated the three key categories of openness, with customer satisfaction and sales performance.

The fundamental challenge of the three studies lay in testing the psychometric properties of the three categories said to underpin openness: "unity", "internal responsiveness" and "external responsiveness". The concept of openness and the three categories of unity, internal responsiveness and external responsiveness are abstractions from and are intended to be understood in the context of Living Systems Theory and Complexity Theory.

The Open Organisations Profile has once been validated, on a sample of 558 people in a large Australian telecommunications organisation. This validation study was conducted by Mink (1995) and demonstrated the Open Organisations Profile was psychometrically stable with reliability coefficients across the nine dimensions and the three categories all above r = 80. However, Mink encouraged further research into the underlying factor structure and follow up research on the psychometric properties to ensure utility of the profile across organisations and different cultural settings. No previous studies of the psychometrics of the instrument had been carried out in the USA and more studies were needed to support the initial Australian validation study.

Based on Mink's (1995) call for further research into the psychometric properties of the Open Organisations Profile this dissertation took up the challenge. It examined the factor structure and other psychometric properties of the profile to determine its validity and its likely practical applications in organisations as a measure of openness.

The key research question this dissertation attempted to answer was:

'Does the Open Organisation Profile provide a valid and reliable measure of openness?'

To answer this question a comprehensive literature review was conducted. The literature review explored the conceptual theories underpinning the Open Organisations Model and the categories and dimensions of the Open Organisations Profile.

The first study (Chapter Two) examined the Open Organisations Profile utilising an archival data set of 2228 participants from six organisations in America. The sample had not been used before for psychometric purposes. The proposed study aimed to assess the properties of the Open Organisations Profile and compare the results to Mink's (1995) psychometric analysis.

The second study (Chapter Three) explored the cross cultural differences between American and Australian organisations in their responses to the dimensions of the Open Organisations Profile. This was the first cross cultural study of its kind using the Open Organisations Profile across two cultures. *t* tests, MANOVA and ANOVA, were utilised to compare the means scores of the two countries on each of the nine dimensions, the three higher order categories and overall openness, and to determine what relationships existed between males and females on the Open Organisations Profile across the two countries.

The findings from this study could have significant implications for researchers doing cross cultural research in organisational openness as the similarities and differences may determine how effectively organisational development programs can

be transported between the two countries. The issue of transportability becomes a significant one as multi-national organisations push to build high performance organisations across different regions of the world.

The third and final study, (Chapter Four) explored the three key categories of openness - unity, internal responsiveness and external responsiveness, in relation to the Service Profit Chain (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994). The Service Profit Chain is a theoretical model which attempts to link employees' perceptions of services delivery with customer satisfaction and sales performance. The findings from this study demonstrated correlational relationships between openness, customer satisfaction and sales performance.

Gelade and Young (2005) completed a similar study with four retail banks in the UK. The focus of the study was on business units and provided inconclusive results to support the Service Profit Chain or links between customer satisfaction and sales performance. The study outlined in Chapter Four focused on three Australian private sector organisations and assessed the three higher order categories of: unity, internal responsiveness and external responsiveness to the variables of customer satisfaction and sales performance to determine the effect on the Service Profit Chain.

The rationale for conducting these three studies was to extend the theoretical and practical applications of the Open Organisation Profile. The first study assessed the robustness and validity of other researchers' work on the Open Organisations Profile. The second study attempted to identify and to understand the similarities and differences that exist between Australian and American organisations, based on the Open Organisations Profile. The final study was undertaken to explore the portability of

the Open Organisations Profile to practical organisational settings in which leaders

want to understand how using such a survey tool can help them grow their business.

The next section of the chapter reviews the literature relating to the three studies

outlined above.

Literature Review

Several key pieces of research within the field of organisational psychology and

organisational theory have led to this dissertation. Firstly, as part of Harvard Business

Review's 75th anniversary, Drucker, Dyson, Handy, Saffo and Senge (1997) discussed

the future for successful high performance organisations. These leading thinkers

concurred that collaboration and openness were among the human aspects most likely

to be key in creating and maintaining organisational effectiveness.

Secondly, Hodgkinson (2003) reflected on the field of organisational

psychology and where future areas of research need to be conducted. Hodgkinson

argued that the area of organisation development offers researchers a unique

opportunity to have an impact on shaping "both the socio-cognitive dynamics of the

evolution of industries and markets and the factors that inform similarities and

differences in competitor cognition among individuals and collectives" (p.13).

Openness in organisations could be a significant factor in shaping the way

individuals and collectives react to changes in the evolution of industries and

marketing. For example, if interventions in organisations are focused on creating an

environment that is based on limited or no feedback from their internal and external

environments the system is likely to suffer entropy and die. However, if the

interventions are focused on seeking feedback from the environment, assessing that feedback and adapting to the environment in a way that is healthy and open.

Thirdly, numerous psychologists (Argyris, 2004; Hofstede, 1997; Kets de Vries, 1999; Maslow, 1988; Mink, 2002; Schein, 2004) and other prominent organisational researchers (Brown, 2001; Clancy & Webber, 1997; DeGues, 1997, 2000; Hawkins, 1993; Katz, 1988; Kotter, 1996; Kotter & Heskett, 1992, Senge, 1992, 2000; Senge, Scharmer, Jawoski & Flowers, 2005) purport that organisations need to interact openly to ensure long-term profitability, sustainability, and productivity.

A growing body of research is also emerging in the area of organisational effectiveness. Hamel and Prahalad (1994) define organisational effectiveness as "continuously increasing the rate of improvement to meet and exceed customer expectations; both internal and external customers" (p.45). As noted by Allee (2003), Drucker (1999), Kaplan and Norton (1996), and Semler (2003) many organisations use financial health as their only indicator of organisational effectiveness. However, financial measures are not sufficient to evaluate the overall successfulness and effectiveness of an organisation in today's ambiguous, fast paced and unpredictable world (Allee, 2003; Drucker, 1995, 1996; Druckerman, Singer & Van Cott, 1997; Kauffman, 1995; Peters, 2003, Semler, 2001).

In fact, there is an overwhelming agreement in the reviewed literature about the inadequacy of the philosophy and approaches of the traditional financial models to effectively represent the performance of modern day organisation (Burton & Moran, 1995; DeGues, 1997, DePree, 1997; Drucker, 1995; Edvinsson & Malone, 1997; Hamel & Prahalad, 1994; Kaplan & Norton, 1992; Mink, Mink, Owen & Esterhysen, 1993;

Quinn, 1992; Quinn, Anderson & Finkelstein, 1996; Wheatley & Kellner-Rogers, 1996, Zemsky, 1995).

While organisations are increasingly being challenged to stay competitive, studies show that many organisations do not reach their potential. In an 18-year study of 208 'successful companies', Foster (2002) found that only three of the 208 lasted the course of the 18-years; 53% lost their position within two years (Handy, 1995). DeGues (1997) showed that the average life of a typical strong firm is 40 to 50 years while an organisation's life expectancy could be in the hundreds of years.

DeGues (1997) suggested there was something unnatural in the high organisational mortality rate; at minimum there was a wasted potential. The work of Foster (2002) and DeGues challenges leaders to explore other possibilities in the way they organise to increase their business or organisational life expectancy. Both Foster and DeGues support developing ways of organising that encourage individuals, teams and organisations to become centred on maintaining a sense of unity and becoming aware and responding openly to changes in the internal and external environment in which the organisation is functioning.

Furthermore, some scholars (Argyris, 2000, 2004, Argyris & Schon, 1996; Bennis & Biedman, 1997; Bennis & Nanus, 1993; Collins, 2000; Drucker, 1999; Edvinsson & Malone, 1997; Mink, Mink, Owen & Esterhuysen, 1993; Pascale, 1991; Quinn, 1992; Schein, 2004, Taylor and Lippitt, 1975) believe that the dimensions and capabilities that are most important to organisational success, such as openness, sustainability, ability to change and how to achieve them, are not assessed in most organisations.

Mink (1994) suggested that for an organisation to succeed, it needed to set both short term and long term goals that are dynamic enough to enable adaptation to environmental, social and political changes. Schein (2004) supported this assumption and believed the processes involved in creating unity, internal responsiveness and external responsiveness underpin an "open organisation" that can fully utilise its resources in a meaningful way.

As noted by Stacey (1996) a key competitive advantage exists in the global business market today in the ability to be open to opportunities that occur within and external to the organisation, and then to adapt to meet these opportunities. This view is supported by researchers such as Mink, Owen and Mink (1993), Peters (2003), Peters and Waterman (1982), Lewin and Regine (2001), Sanders (1998), Sveiby (1997), Swieringa and Wierdsma (1992), Aubrey and Cohen (1995), Wiersema (2001), Morgan (1989, 1993), March (1999), McKenzie (2001), Collins (2001), and Stewart (2000). Stacey (1996) suggests that the key competitive advantage comes from the organisation's ability to learn, unlearn and relearn quickly.

As noted above leading academics and practitioners support the importance of focusing energy on the external environment which includes customers, stakeholders, governments and communities; while responding to changes inside the organisation. The Open Organisations Model could provide a useful framework for assessing the capability to respond to both internal and external environments while building and maintaining a sense of unity to ensure ongoing success.

The Open Organisations Profile which is the assessment tool of the Open Organisations Model could aid leaders in understanding the nature and cause of

individual differences in learning and responding to their environment, while also

forming the basis of targeted training programs aimed at improving related areas such

as organisational rejuvenation (Dess, Ireland, & Zahra, 2003; Jaffe & Scott, 2003; Tell,

2000), organisational sustainability (DeGues, 2002; Harvard Business Review, 2003;

Hawkins, 1993; Robert, Daley, Hawkins, & Holmberg, 1995; Semler, 2003) and

increased levels of customers satisfaction (Gelade & Ivery, 2003; Gelade & Young,

2005; Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994; Schneider, White, &

Paul, 1998).

Concept of Openness

The pace of change in the way we live means there are constant demands for

creativity and innovation; organisations have literally driven the transformation of the

modern world. We've travelled from the horse and buggy to the four wheel drive in less

than one hundred years because of the relentless demand that organisations create

'something' new. And it's only getting faster. Disney is producing and launching a

product every five minutes. Sony launches three new products per hour. Seventy

percent of Hewlett-Packard's revenue comes from products that didn't exist a year ago.

This constant rush to market has dramatically improved and transformed human life—

doubling our life expectancy, improving the quality of living, and expanding the

horizon of possibility.

However, the mindset that has driven this rapid change is based on a

mechanistic view of the world and its resources. Debold (2005) notes that,

> "This mindset was the catalyst for the ingenious inventions of
>
> modernity, which catapulted a significant portion of humanity out of the

superstition and poverty of the pre-modern world. The first scientists of

the Western Enlightenment—geniuses like Newton, Descartes, and

Bacon—studied nature to learn the workings of God, the ultimate

watchmaker. Over time, God dropped out of the picture as the theory

and practice of objective scientific inquiry drained the sacred from the

material world, leading to the assumption that the entire physical world

(ourselves included) is a soulless machine. Freed from thraldom to

Church dogma, we human beings applied our God-given intelligence to

creating in our own right. This liberated creativity was the oil in the

engine of the Industrial Revolution. And the machine was the perfect

metaphor for the age" (p. 2).

The logic of this economic machine seems flawed: that if each individual person

and organisation shamelessly pursues his, her, or its own self-interest, a positive

outcome will be created for all. It's become clear to numerous organisational

researchers that it doesn't work this way (Debold, 2005; Mink, 2002; Wheatley, 1999).

As noted by DeGues (1997) the predominate mindset that drives our organisations is

mechanistic thinking that values wealth creation over all other factors. However, as

speed of change has increase and organisation become more interconnected and

complex. The mechanistic mindset is no longer useful. Mechanistic thinking is

reductive and as noted by Debold rests on simple linear chains of cause and effect. Like

any mechanical device, it processes in one direction, along one line of reasoning,

oblivious to anything that gets in the way.

But there is another way of seeing an organisation. Senge (2004) says, "You can see it as a machine for producing money, or you can see it as a human community" (p.29). It's a living place. Therefore, the prevailing mindset that has created our interconnected globe is now unable to cope with the complexity that it has created.

As noted by Scott (2006) mechanistic systems are highly constrained and have limited interdependencies between its parts. In a mechanistic system we expect the parts of the systems to deteriorate over time, but they are easy to replace. These mechanistic systems are considered closed systems as they consume energy and resources and information to achieve a preset end.

Whereas, organic systems are not constrained and self organise around the resources available. Organic systems are considered open systems as energy, resources and information are responded to in real time and are regularly exchange with the environment in which it operates. This is key distinction between an open and a closed system. A closed system is unable to change to accommodate and adapt to its environment, whereas, an open system is constantly interacting with its environment to exchange information, energy and resources.

According to Jackson (2003) research on openness began in the early 1950s when Ludwig Von Bertalanffy, a biologist, argued that organisms should be studied as complex wholes as opposed to the Newtonian approach involving the study each part individually. This argument led Von Bertalanffy (1950) to publish an article which identified the distinctions between closed systems and open systems.

A closed system engages in no exchanges with its environment, whereas an open system, such as an organism, has to interact with its environment to maintain itself

in existence. Open systems take inputs from their environments, transform them and then return them as products back to the environment. Von Bertalanffy (1950) identified that open systems depend on the environment for existence and adapt to changes in the environment.

During the 1990's and early 2000's researchers such as Stacey (1996), Maturana and Varela (1986), Wheatley (1999) and Capra (2005) started to take the concepts of Open Systems Theory and explored how organisations could be more open in complex environments. The fundamental assumption underpinning Open Systems Theory is that a system must be responsive to its environment, no matter how complex the environment is (Jackson, 2003).

Complexity Theory

Gleick (1987) credits the development of Complexity Theory to meteorologist Edward Lorenz. Lorenz was working on the problem of long-range weather forecasting using a simple computer simulation based on just 12 equations. Intent on studying one particular weather sequence at greater length, and in a hurry, Lorenz re-entered the initial condition, but using three rather than six decimal places. Given that difference was only one part in a thousand, Lorenz assumed that the new run would exactly duplicate the old. To Lorenz's amazement, however, the new weather pattern rapidly diverged from that shown in the previous run and within a few months all resemblance had been lost.

Lorenz had discovered that tiny changes in a complex system's initial state can alter long-term behaviour significantly. Lorenz discovered that non-linear relationships are widespread in complex natural and social systems and this reduces the ability to

accurately make prediction about the relationship between two or more variables. However, Lorenz claimed that although predicting relationships was difficult, there was a sense of order underlying the chaos.

Throughout the 1970s and 1980s the term Chaos Theory gave way to Complexity Theory, As noted by Jackson (2003) the strict interpretation of the scope of Chaos Theory sees it as limited to the mathematics of non-linear dynamics behaviour in natural systems. By contrast, Complexity Theory is represented as being applicable to the behaviour over time of complex social as well as natural systems.

Social systems such as organisations are not just "complex adaptive systems" (Jackson, 2003, p. 115) bound by the fixed rules of interaction of their parts. Rather, they are "complex evolving systems" (Jackson, 2003, p. 115) that change the rules of their development as they evolve over time.

Complexity Theory is being charted by researchers and theorists such as Capra (2002) Jantsch (1980) and Wheatley (1996, 1999) who search for holistic patterns of organising in nature and transport these ideas to the way we organise for productive and economic development. Such theorists believe the system can only be understood in terms of the relationships that exist between the parts and the whole. As noted by Jackson (2003), "it is the patterns of relationships that determine what a system does" (p112).

The following section outlines the theoretical assumptions that underpin Complexity Theory. The assumptions underpinning the Open Organisations Model are an outgrowth of Complexity Theory. Open systems are complex systems constantly

changing due to the interaction of their parts as they seek to process a continuous flow of matter, energy and information from their environments.

A complex system is always in a state of flux, an arena of dynamic processes from which stable structures are temporarily born. It is this dynamic process that encapsulates the categories of openness, namely, unity, internal responsiveness and external responsiveness.

The focus of Complexity Theory and the theoretical assumptions of the Open Organisations Model are based on the process of relationships and how employees and managers are able to maintain a sense of unity in such unpredictable and complex organisational setting.

As a relatively new field of inquiry, Complexity Theory has developed a nomenclature to describe the components and relationships within the theory. For example, Complexity Theory refers to any living system as a self-organising system as it has a unity of purpose, and internal structure and responds to the environment. In terms of organisations, Complexity Theory identified that in complex organisations individuals are referred to as 'agents'.

If we apply the theoretical components of Complexity Theory to the Open Organisations Model it suggests that a self-organising system has a strong sense of unity, provides the agents with the internal structure they need to respond effectively to the external environment, the system will be successful and in essence it will meet the needs of it stakeholders. In theory the concepts of unity, internal responsiveness and external responsiveness provide the agents with a permeable set of boundaries in which they can operate.

The permeable boundaries created by the concepts of unity, internal responsiveness and external responsiveness are referred to as strange attractors and the function of these attractors is to keep the system within a set of boundaries, without ever requiring the system to repeat itself exactly.

As noted by Mink et al. (1994) a sense of unity based on an agreed set of values and beliefs, with the internal structures to support growth across an open organisation provide the agents with the boundaries they need to perform at a high standard and be external responsive to stakeholders. Furthermore, if the agents understand and believe in the sense of unity at an individual, group and organisational level they can operate independently to achieve the goals and aspirations of the organisation (Briggs & Peat, 1989; Waldrup, 1992; Wheatley & Kellner-Rogers, 1996).

Interestingly, in the researchers experience many organisations are adopting the necessary language to develop self-organisation, such as vision, mission and values. However, actions and decisions are based in reductionist methodologies that create a gap between what people are being asked to do and what people are really expected to do. In summary, many organisations are using self-organising language, but still thinking in linear, mechanistic terms.

If leaders truly engage people around the vision, mission and values of the organisation, Mink (2002) suggested they adopt a mindset based on the organisation being a complex, open system, with sometimes conflicting goals. The vision, mission and values become guideposts to ensure individuals, teams and the organisation can organise themselves around a common shared purpose and lead the organisation in a

direction to meet and exceed customer needs, while offering a good quality product and/or service.

Psychological research into Complexity Theory has been limited. However, in the field of organisation behaviour several studies have been conducted into Complexity Theory and organisational openness. Morgan (1997), Stacey (1996),Wheatley (1996), Capra (2005) and Argyris (2006) offer methodologies for applying the principles of complexity theory to organisations.

Morgan (1997) suggests three stages to organisational openness using Complexity Theory. Stage one would consist of understanding the attractor pattern, determining the current behaviour of the organisation and the reasons why it is dominant. If the pattern is not desirable from the organisation's point of view, then change must be brought about in order to ensure the system shifts to another pattern. Making the change is stage two. Stage three requires the new attractor pattern to be stabilised while, at the same time, ensuring that it does not lock the organisation, in the long term, into routine forms of action.

The key to stages one and three is to try and grasp 'patterns' at the deeper level, to uncover the order underlying the chaos. If the underlying patterns can be identified, agents inside the organisation can start to make tentative hypothesis and action plan to improve the underlying patterns of organisational openness.

The Open Organisations Model provides a theoretical map to these underlying patterns of order and the Open Organisations Profile gives managers and employees data from within the organisation to develop and test their hypotheses regarding the

patterns that are inhibiting organisational openness and where openness can be improved.

Finally, Argyris (2004) suggests that an organisation's ability to be open and responsive relies on its ability to learn, unlearn and relearn. The more efficient and effectively people in the organisation can learn, unlearn and relearn, the more responsive the organisation. Argyris (2004) also argued organisations need to experience double-loop learning. Double-loop learning involves using the governing values of valid information, free and informed choice and internal commitment to achieve results and outcomes. As noted by Wheatley and Keller-Rogers (1999) in a complex organisation double-loop learning is an essential element in creating an open, adaptive organisation.

The concept of double-loop learning leads to what Argyris calls a model two world, where dialogue, advocacy with inquiry and values based leadership can create quality products and services. The demand in organisations for double-loop learning is due to the complexity of organisational life and the constant need to be open to both internal and external events.

Finally, the Open Organisations Model is based on the assumption that if an organisation is to be effective, it must be open. Open systems are living and complex and require both internal and external data, information and knowledge to function effectively.

The above literature provides a review of the links between the studies of complexity science and organisational openness. The emerging science of complexity provides the language and theoretical constructs of unity, internal responsiveness and

external responsiveness which are the three key categories being measured in the Open Organisations Model.

Complexity Theory encourages the abandonment of mechanistic and deterministic assumptions underlying the Newtonian worldview and the embracing of a perspective that, in recognising relationships and indeterminacy, is much more holistic in character. The next section of the literature review will explore Living Systems Theory and the links to the Open Organisations Model.

Living Systems Theory

In the psychological literature Living Systems Theory has been used as a framework for several inquiries into organisational effectiveness. The original theory was developed by Miller (1978) as a biological application of open system theory. Miller identified that living systems operate on a hierarchy of eight levels of complexity (see table 1). Swanson and Miller (1989, 2001) extended the theory to include 20 critical subsystems, without which no living system could exist in the Earth's environment.

Table 1.

Hierarchy of Living Systems Theory

Living System	Description
1. Cells	Minute unitary masses of intricately organised protoplasm. "All living systems either are free-living cells or have cells at their least complex living component" (Miller, 1978, p. 203).
2. Organs	Organism subsystems that are formed from tissues. Tissues are collections "of adjacent cells of like origin and structure which carry out similar, specialised processes" (Miller, 1978, p. 315).
3. Organisms	Any animal or plant with organs and parts that function together to maintain life.
4. Groups	"A set of single organisms, commonly called members, which, over a period of time or multiple interrupted periods, relate to one another face-to-face to process matter/energy and information" (Miller, 1978, p.515).
5. Organisations	"Concrete living systems with multi-echelon deciders whose components and subsystems may be subsidiary organisations, groups, and (uncommonly) a single person" (Miller, 1978, p.595).
6. Communities	Higher-order human systems prominently composed of both organisations and individual persons as subsystems. Communities have organisations that are given special powers to control the components.
7. Societies	"Large, living, concrete systems with organisations and lower levels of living systems as subsystems and components" (Miller, 1978, p.747).
8. Supranational	Concrete, living systems "composed of two or more societies, some or all of the systems processes are under the control of a decider that is super-ordinate to their highest echelons" (Miller, 1978, p.903).

Swanson and Miller (2001) noted while living systems at each progressive level are differentiated by many unique emergent factors, the similarities exist due to the common origins of life. Although each kind of subsystem can be found in living systems from the simplest to the most complex, the subsystems are increasingly complex at the progressively higher levels.

In response to Miller's theory of Living Systems Theory, a number of research efforts emerged lead by Ashmos and Huber (1987) who wrote a landmark article urging researchers in organisational behaviour and management to make greater use of Living Systems Theory. Ashmos and Huber pointed out that Living Systems Theory displays three useful features for organisational research:

1. a precise elaborate typology of subsystems possessed or accessed by all living systems

2. rich description of the additional properties (i.e. emergents) found at each higher level of living systems and

3. a wide variety of cross-level hypotheses

Furthermore, Ashmos and Huber (1987) warned against not using Living Systems Theory, as if it is ignored "organisational theorists will miss opportunities to identify relationships between variables and to accelerate theory building" (p.3).

Toamina (1991) was one of the first organisational researchers to answer this call by conducting a study to test Living Systems Theory in the context of information processing. Toamina (1991) produced a diagnostic instrument to assist leaders in identifying, defining and solving organisational problems.

The diagnostic instrument was designed to analyse the ten information processing subsystems referred to in Living Systems Theory, rather than all 20 of the critical subsystems described by Miller and Miller (1990). The reason for this limitation is pragmatic. Toamina (1991) suggests that the ten information processing subsystems could be easily understood by organisational leaders, therefore allowing them to measure the successful implementation of their interventions.

The study found leaders who focused on the information processing subsystems of Living Systems Theory actually showed significant improvement in core business outcomes, decreased waste and increased employee involvement.

Toamina's (1991) study was not without limitations. Firstly, only a few leaders were trained in the processes associated with Living Systems Theory. Furthermore, these leaders highlighted the difficulty in learning and applying the processes and thinking behind Living Systems Theory. Secondly, the study was limited to one section of an organisation. This does not provide confidence that the processes associated with Living Systems Theory could be applied to larger organisations to improve openness.

The Open Organisation Model utilises the levels of individual, groups and organisation involved in Living Systems Theory as opposed to the processes involved associated with Living Systems Theory as the Toamina study. The Open Organisation Model could provide leaders with an easy to use nine window matrix to assess the openness of their organisation. The Open Organisation Profile, which is the assessment instrument of the Open Organisations Model, is being investigated in a series of studies in this thesis.

Another important living systems study was conducted by Tracey and Swanson (1993) who used Living Systems Theory as a conceptual framework to explore management and organisational behaviour. Such a framework they believed was lacking in the field of organisational behaviour and would therefore provide a unified set of assumptions regarding the study of individuals, groups and organisations.

To demonstrate the power of the Living Systems Theory framework Tracey and Swanson (1993) investigated the constructs of decision-making, leadership, conflict, power and influence. The analyses showed that decentralised organisational structures reduced the capability of leadership to make well informed decisions, influence the employees and deal effectively with conflict. Tracey and Swanson suggested that Living Systems Theory "is a fruitful source of hypotheses for further study, hypotheses about causal relationships and cross-level interactions" (p.28).

The Tracey and Swanson (1993) study provided a platform for Living Systems Theory as a legitimate framework for inquiry into organisations. However, the study did have a serious limitation in that Living Systems Theory was applied to the constructs of leadership, decision-making, conflict, power and influence, all complex constructs that need further study to assess the value Living Systems Theory can offer. For example, the construct of leadership is well studied and the researchers assert that leadership occurs at all levels of the organisation. However, no direction is provided as to how Living Systems Theory can be used to assess leadership or improve leadership internally or externally to the organisation. This lack of applicability and a lack of data-driven hypothesis make it difficult to assess the usefulness of the study.

Research conducted by Kalaidjieva and Swanson (2004) suggested that there are nine characteristics that separate living and non living systems. Briefly stated, the nine characteristics are:

1. they are open systems

2. they maintain steady states of growth

3. they have more than a certain minimum degree of complexity

4. they have genetic material or a charter which is the template for their structure and process from the moment of their origin

5. they are composed of organic compounds and may also include non-living components

6. they have a decider, the essential critical subsystem that controls the system causing its subsystems and components to interact

7. they have certain other critical subsystems

8. their subsystems are integrated together to form actively self-regulating, developing unitary systems with purpose and goals, and

9. they can exist only in a certain environment.

These nine characteristics that separate a living and non-living system are strongly supported by the work of Maturana and Varela (1980). Maturana and Varela emphasised that open, living systems are self-producing and autonomous. Such self-producing systems respond to environmental disturbances, but not directly or simply; the nature of the response depends on the internal organisational arrangements. If the

organisational system is closed, it is unlikely to respond to the disturbance, however, if the system is open the structure can change, the fundamental organisational identity remains unified.

Louderback and Swanson (1994) investigated the relationships between internal and external information flows in public sector organisations. The researchers demonstrated that a detail process analysis using Living Systems Theory provided evidence that more informed decisions could be made regarding financial expenditure if the people within the organisation focused on internal and external information. Louderback and Swanson where able to show when government departments did not follow a process of engaging internal and external feedback, the financial implications increased dramatically.

In the mid to late nineties little psychological research has been carried out using Living Systems Theory. However, Caldwell (2001) utilised Living Systems Theory to examine test the concept of 'sense-making'. Sense making is a concept formulated by Weick and attempts to explain how people use a series of mental process to make sense of what they perceive (Weick 1995).

The Caldwell (2001) study examined how people make sense of their work environments from an organisational development perspective. Caldwell suggested organisational effectiveness was related to people's ability to make sense of their work environment. Caldwell demonstrated the more self aware a person was the more responsive they were to events happening in the workplace compared to people with low levels of self awareness, who struggled to make sense of their environments.

One of the interesting findings was that people with high levels of self awareness did not always make sense of the event straight away. However, these participants were able to share their ideas and let others test their attributions and assumptions as they were making sense of the event.

The Caldwell (2001) study demonstrated two of the three concepts that Argyris (2006) purports need to occur for individual and organisational learning. Argyris suggests that learning is maximised when people are self aware of the gaps between their theories in use and their espoused theory.

Argyris (2006) defined three characteristics that need to be in place for learning to occur. The first characteristic is a clear understanding of the individual's basic values and beliefs. The second characteristic is self awareness and the final characteristic is being able to engage with other people in advocacy and inquiry to test assumptions and attributions.

The three concepts of Argyris's theory of learning are the first three factors utilised in the Open Organisations Model. The three factors are utilised at the individual level of the model, where Basic Values and Beliefs are interpreted as the individual's characteristic of unity; self awareness as the characteristic of internal responsiveness; and being open to the external world, as external responsiveness.

The factors that Argyris has identified in over 50 years of psychological research form the basis of the Open Organisation Model. Mink (1992) utilised the concepts of Argyris's work, coupled with the categories of groups and the organisation from Living System Theory the Open Organisations Model has strong theoretical

underpinnings. The section below will detail the categories, and dimension of the Open

Organisation Model further.

<center>*Categories of the Open Organisations Model*</center>

The framework for the Open Organisation Model and the subsequent

assessment instrument, the Open Organisations Profile, is based on the concept of

openness adapted from the work of Mink, Shultz, and Mink (1991). In their seminal

book, these authors proposed that an organisation is a system made up of agents or

subsystems. Each agent in each group is a subsystem, and each agent has independent

meaning, but all agents function interdependently. Furthermore, each agent is driven by

self interest and the need to establish its own meaning and rules to function within the

larger subsystems and the overall organisation.

Mink, Schultz and Mink (1991) conceptualised openness at three levels of self

organisation. People in organisations self organise at the individual level, the group

level and the overall organisational level. Within this framework Mink et al. proposed

that people maintain themselves across these three levels of self organisation by

maintaining unity (consistent purpose), internal responsiveness (alignment of resources)

and external responsiveness (responding to others). The Open Organisations Model

represents a system in its healthiest state, an ideal to evaluate relative openness and a

guide to greater effectiveness of a given organisation.

Mink, Schultz and Mink's (1991) conclusions regarding an open, living system

are supported by Capra (2002) in that all systems must have three fundamental

components to be defined as living. Specifically, Capra defined the patterns of

organisation of a living system as, "the configuration of relationships among the

system's components that determine the system's essential characteristics, the structure of the system as the material embodiment of its patterns of organisation, and the life process as the continual process of this embodiment" (p.61).

The work of Capra (2002) and Mink, Schultz and Mink (1991) have been useful in considering Complexity Theory, Living Systems Theory and organisational openness. However, it could be argued that theoretical differences in nomenclature could denote the categories identified by Mink, Schultz and Mink (1991) and Capra (2002) as different and not comparable as indicated in the above literature review.

Therefore, there is much value in identifying common or core elements of openness to improve the performance of organisations. The following section of the dissertation will attempt to synthesise the research pertaining to the development of the Open Organisations Model and highlight areas where applied psychological inquiry could assist in strengthening the model.

Mink (2004) defined unity operationally as, "the various ways of describing how a person, group, or organisation shows consistent, unifying, and purposive behaviour in varying environments" (p.32). As noted by Argyris (2004) unity is the essence of being and becoming, enabling adaptability and intelligence. Unity is maintained and enhanced by consistently focusing energy on the definition and achievement of purposes and goals, rather than around power issues.

The second characteristic of the Open Organisations Model is internal responsiveness. Mink (2004) defined internal responsiveness as, "the ability of the individuals, groups and organisations to align and work together toward a common purpose" (p.34). Numerous authors including Capra (2002), Senge (2005) and McElroy

(2004) support the concept that internal responsiveness is developed and maintained through collaboration rather than through authority.

Senge (2005) argued that when individuals, teams or the organisations are focused on achievement of accepted goals through collaboration, involving managers and staff participating together in planning, experimenting and implementation, the organisation will be most effective.

Mink (2004) supported Senge's analysis of internal responsiveness and expanded upon it by suggesting that when people have the opportunities to be creative, have true responsibility and opportunities for personal and professional development, then the level of internal responsiveness at the individual, team and organisation will create a workforce that is focused on achieving the purpose while being responsive to external changes in the marketplace.

The third characteristic of the Open Organisations Model is external responsiveness. Mink (2004) defines external responsiveness as, "being open to new disconfirming data from outside the organisation" (p.35). Researchers such as Levine and Moreland (2004) and Hamel and Prahalad (1994) have shown the one factor that restricts successful implementation of a strategy is the lack of input from outside the organisation. An organisation cannot be successful by fencing itself off from the outside (Mink, 2004, p.35).

Two of the most prominent researchers in strategy suggest that too often organisations and senior managers close themselves off to external data, opting instead for a simplified view of the world (Hamel & Prahalad, 1994; Handy, 2001).

Mink (2004) suggested organisations need to be proactive rather than reactive in their relationship with the external environment. Furthermore, as noted by Argyris (2004) organisations that create permeable boundaries with their external environments are able to anticipate and prepare for change, rather than making decisions after the crises have developed.

The three categories of the Open Organisations Model outlined by Mink (2004) are informed by current research in the fields of organisational effectiveness and management. Each of the categories has a growing body of evidence to support its use as a valid concept in the study of organisational effectiveness. However, only Capra (2002); Argyris (2004); Wheatley (1999); and Mink (2004) have linked the three categories of unity, internal responsiveness and external responsiveness together as a method of understanding the dynamics of organisational effectiveness.

Mink (2004) has been one of the only researchers to bring these categories together in a theoretical model of organisational effectiveness. The next section of this dissertation will examine the levels of self-organisation that Mink has identified in the Open Organisations Model.

Levels of Self-Organisation

The three characteristic of unity, internal responsiveness, and external responsiveness may be used to describe the entire organisation, or its sub- systems. The Open Organisations Model examines the categories of openness at three levels of self-organisation which are derived from Swanson and Miller's (2001) analysis of Living Systems Theory:

- the individual,

- the group, and

- the entire organisation.

At the individual level, the three categories of unity, internal responsiveness and external responsiveness are designed to assess an individual's basic values and beliefs, self awareness and responsiveness to other, respectively.

The categories of unity, internal responsiveness and external responsiveness at the group level are assessed by measuring the participant's responses to the level of shared purpose, interpersonal relationships and cooperation with others.

The final level of self organisation in the Open Organisations Model is the entire organisation, where Mink (2004) uses the measures of shared vision, alignment of resources and contribution to other as an indicator of unity, internal responsiveness and external responsiveness.

Figure 1 (see below) displays a visual representation of Mink's (2004) Open Organisations Model. The matrix highlights the interconnectedness of the model and how the categories of unity, internal responsiveness and external responsiveness are measured at the individual, group and organisational level. Furthermore, the visual representation demonstrates how the Model could be utilised to develop organisational effectiveness no matter what type of environment the organisation operates in, including for-profit, not-for-profit, community and Government.

Open Organisations Model

	Unity	Internal Relatedness	External Responsiveness	
Individual	Basic Values & Beliefs	Self-Awareness	Responding To Others	Regulators Markets
Group	Shared Purpose	Interpersonal Relationship	Cooperating with Others	Shareholders Customers
Organisation	Shared Vision	Alignment	Contributing to Others	Community Government
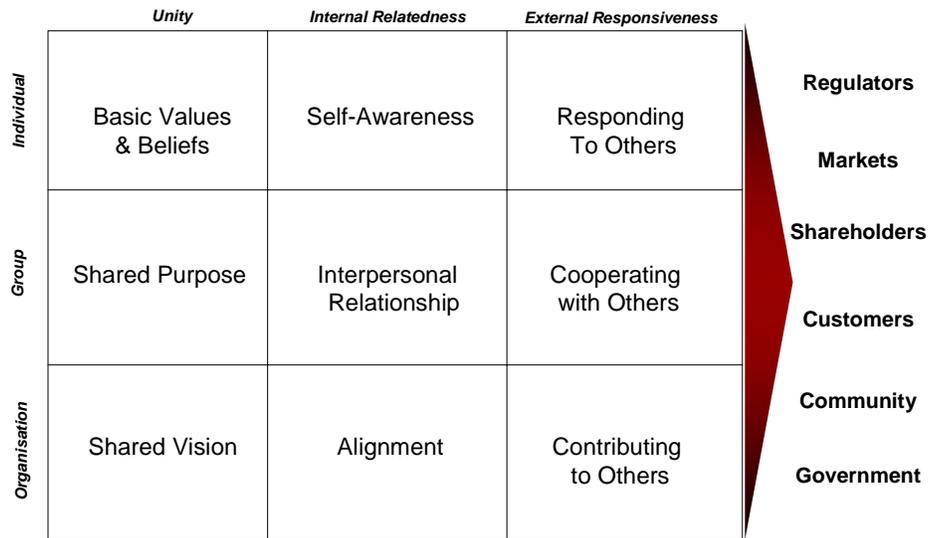
Figure 1.

The Open Organisations Model

Mink's (2004) Open Organisations Model indicates there are nine key measures of openness. Figure 1 show at each intersecting point between the three categories of unity, internal responsiveness and external responsiveness and each of the levels of self-organisation a measurement can be taken. In an attempt to capture these measurements a diagnostic was developed (Mink, 1992). The diagnostic was called the Open Organisations Profile which consisted of 90 questions to assess the openness of an organisation against the Open Organisation Model. The following section will review each of the dimensions assessed in the Open Organisations Profile and the supporting research for each of these dimensions.

The Open Organisations Profile is a 90 statement diagnostic designed to assess openness in an organisation. Mink (1995) reported an overall split-half reliability of $r =$ .94 for the full Open Organisations Profile. The reliability coefficients ranged from .89 to .95 across all nine dimensions. As noted in Figure 1 there are nine key intersections between the categories of unity, internal responsiveness and external responsiveness and the levels of self-organisation. Each of the intersecting points is measured by a series of ten questions. Below each measure is described in detail with the associated research to support it.

Dimension 1: Basic Values & Beliefs.

Mink, Schultz and Mink (1991) suggests basic values and beliefs are the cornerstone of the Open Organisations Model. Schwartz, (1992) notes that values have been defined as desirable, trans-situational goals, varying in importance, that serve as guiding principles in peoples lives. They are drivers of behaviour (Rokeach, 1973) including workplace behaviour (Schwartz, 1999). Dose (1997) observes that "so much of our time is spent in a working environment, work values are particular significant and salient" (p. 236).

Much of the values research has focused on how individuals, groups, organisations, and cultures differ in the values they hold, and how these differences affect behaviour. Recent work by Schwartz and Bardi (2001) investigated the similarities among value priorities. They found that some 'pan-cultural' motivational values, including: benevolence (preservation and enhancement of the welfare of people with whom one is in frequent contact, self-direction (independent thought and action,

choosing own goals), and universalism (understanding, appreciation, tolerance and protection for the welfare of all people, were consistently rated across culture as being more powerful than other types of values.

As noted by Abbott, White and Charles (2005) if there is a general tendency in human nature to favour these pan-cultural values, then it follows that organisations that adopt them are likely to closely align the personal values of the employees and the organisational values.

Dimension 2: Self-Awareness

Rogers (1961) defined self-awareness as the degree of overlap between what an individual is and what the individual perceives themselves to be. When both are consistent, or there is only a small gap, the individual is generally in good psychological health. When a large gap exists between what the individual is and what they perceive themselves to be, the individual lives in a state of psychic dissonance. Furthermore, as noted by Robak, Ward and Ostolaza (2006) healthy, adaptive, individuals constantly try to identify gaps and actively close them so they are congruent.

Dimension 3: Responding to Others

An open person seeks connectedness and does so naturally with others. This concept was further developed over the years by Cooperrider and Srivastva (1987) and Weick (1982) to reflect the growing body of evidence to support advocacy with inquiry. As noted by Thatchenkery and Metzker (2006) advocacy involves understanding your own values, being able to monitor your internal dialogue and share

your thoughts, feelings and assumptions for others to test. Furthermore, inquiry involve using good counselling skills such as active listening, reframing and mirroring to inquiry into another person's frame of reference. Thatchenkery and Metzker (2006) call this type of interaction dialogue.

Dimension 4: Shared Purpose

Shared purpose binds together the individuals of a group. Without it, there can be no cohesive whole (Mink, 1994). Senge (2005) suggests shared purpose enhances commitment and meaning and creates powerful synergy - a state in which combined energy and output surpass in quality and quantity the sum of all members' individual energies and resources. This view is supported by numerous researchers including Kotter (1996), Kaplan and Norton (1996) and Schein (2005). Schein further suggested in a group shared purpose can truly emerge only when the individuals that make up that group establish congruence between the groups' shared purpose and their own value systems and roles. Shared values in the group will emerge only on a basis of trust and subsequent awareness and appreciation of individual differences.

Dimension 5: Interpersonal Relationships

Sylvan (2004) suggests that every group in an organisation is both a supplier and/or a customer to another group within the organisation. This 'customer' group may be either internal or external to the organisation. Each group must identify its suppliers/customers and their needs, design and create systems to produce products and services that meet those needs, and monitor and improve those systems as needed. That

requires coordination of operational activities and interpersonal activities, which in turn requires excellent interpersonal relationships.

Levine and Moreland (2004) noted interpersonal relationships are possible only when the people entering into a relationship are reasonably healthy. In other words, they must be capable of entering into and nurturing relationships based on openness to both themselves and others; they must be relatively free of dysfunctional relations; and they must be open to learning.

For group members to develop commitment and become more productive, the group must provide an environment in which its members' needs can be met. Groups must therefore deal with three underlying interpersonal issues:

1. inclusion and acceptance

2. perceived control

3. self-esteem and productivity.

When the team enables individuals to meet their needs for belonging, power, and competence, then both individuals and the group will prosper and succeed.

Dimension 6: Cooperation with Others

Mink, Schultz and Mink (1992) highlight the importance of effective collaboration, which involves the capacity to identify needs correctly and to communicate well with customers and suppliers. It also involves informing customers about available products and services, determining the extent of customer satisfaction, and learning about continuous improvement activities and plans. Schein (2004) and Argyris (2002) support the need to effective collaboration with other teams across the organisation, with customers and supplier groups external to the organisation. Furthermore, Higgins

(2005) suggests in many organisations this is the biggest constraint to effective strategy implementation. Higgins reports over 80% of the strategy executions fail resulting from poor collaboration between internal or external partners.

Dimension 7: Shared Vision

Senge (1992) said "without a genuine sense of common vision and values there is nothing to motivate people beyond self-interest" (p.274). Organisational climate, Senge suggests, should be built on merit rather than on politics and games - on 'doing what is right' over 'who wants what done'. A shared vision can be solidified and made 'real' by:

- formulating a brief statement of the organisation's philosophy in such a way that every person in the organisation can express it clearly,

- developing and initiating policies, procedures, and programs that support it, and

- communicating the vision in ways that get everyone involved

Dimension 8: Alignment

Allee (2003) suggests an organisation is a collection of interdependent roles and functions, each contributing to the whole. To survive, make money, attract and retain customers, create a quality work environment, satisfy employees, and contribute to the community and to society as a whole, an organisation requires at least the following functions: marketing, financial, operational, and human resources (Mink 1992). Furthermore, all subsystems must work together for the benefit the whole, which usually requires mutual adjustments and advancement in learnings and development (Allee, 2003).

Alignment involves understanding how these systems and subsystems interact and make adjustments when they are not in harmony with the whole. As noted by Kaplan and Norton (1996) it is important to keep in mind, however, that alignment is never absolutely attained; it is an ongoing activity.

Dimension 9: Contribution to Others

A primary purpose of any organisation is to provide products and/or services that meet or exceed its customers' expectations. Mink (1992) suggests an organisation must:

1. determine which group or groups of customers they want to serve

2. understand the needs of their customers

3. encourage their customers to buy their products and services

4. learn how the customers are evaluating the products, and respond to those evaluations.

Recent evidence on Corporate Social Responsibility has indicated that organisations that actively engage in being better corporate citizen are more highly prized by graduates, (Webb, 2003) are more successful in understanding and meeting their customer needs, (Burlingame, 1994) and are more profitable in financial and social measures (Harvard Business Review, 2003).

Conclusion

The Open Organisations Model was built on a number of theoretical assumptions, the first being organisations are living systems that can be assessed using

Living Systems Theory. The second assumption is organisations are complex adaptive systems and therefore the processes for openness can be identified and studied. The processes include the categories of unity, internal responsiveness and external responsiveness and the nine dimensions of the Open Organisation Profile.

To assess whether the Open Organisations Profile is an accurate and relevant measure of organisational openness, three studies have been conducted to answer the following question.

Is the Open Organisations Profile a valid and reliable measure of openness in organisations?

Each of the three studies has used the Open Organisations Profile, as the core diagnostic to assess the nine constructs of the openness.

The first study, outlined in the next chapter, assessed the psychometric properties of the Open Organisations Profile using an archival data set of six American organisations. Studies two and three are outlined in subsequent chapters and deal with two further Australian validation studies.

Chapter 2

Study 1 – Examining the Factor Structure of the Open Organisation Profile

Introduction

The purpose of this study was to assess the factor structure of the Open

Organisations Profile developed by Mink, Shultz and Mink (1991).

Over a series of studies conducted between 1970 and 1990 Mink and his

colleagues designed and examined the reliability and validity of a number of

organisational diagnostics (Mink, Schultz, & Mink, 1991). This work culminated in

their most recent measure of organisational openness, the Open Organisations Profile

(Mink, 1995).

The psychometric manual provided by Mink (1995) reported an overall split-

half reliability of r = .94 for the full Open Organisations Profile of 90 items. Table 2

reports the reliability coefficients for the nine dimensions of the Open Organisations

Profile as provided by Mink (1995) in the Open Organisations Profile technical manual.

Table 2.

Split Half Reliability Analysis of the Open Organisations Profile conducted by Mink

(1995) (n = 524)

	Unity	Internal responsiveness	External Responsiveness
Individual Level	Dimension 1: Basic Beliefs and Values (10 items)	Dimension 2: Self-Awareness (10 items)	Dimension 3: Responding to Others (10 items)
	r = .89	r = .89	r = .92
Group Level	Dimension 4: Shared Purpose (10 items)	Dimension 5: Interpersonal Relationships (10 items)	Dimension 6: Cooperation with Others (10 items)
	r = .94	r = .95	r = .93
Organisational Level	Dimension 7: Shared Vision (10 items)	Dimension 8: Alignment (10 items)	Dimension 9: Contributing to Others (10 items)
	r = .94	r = .92	r = .90
Overall	Unity (30 items) r = .92	Internal responsiveness (30 items) r = .92	External Responsiveness (30 items) r = .91

Each of the Cronbach alpha coefficients were found to be well above acceptable psychometric standards of .70. The coefficients ranged from .89 to .95.

Although Mink (1995) has shown the Open Organisations Profile as having good psychometric properties there is a lack of independent reliability testing and no evidence of the underlying factor structure of the Open Organisations Profile.

The objectives of the current study were to replicate the Mink (1995) findings regarding the internal construct validity of the Open Organisations Profile and to examine for the first time the factor structure of the Open Organisations Profile using the archival data available on six American organisations.

It was hypothesised the conceptual Open Organisations Model representing the scale structure of the Open Organisations Profile will exhibit high internal consistency reliability across for the three categories of organisational openness comparable to those in the Mink (1995) study.

Secondly the nine dimensions, each measured by 10 items would exhibit high internal consistency at the factor loadings for the three categories of organisational openness comparable to those in the Mink (1995) study.

On the basis of the preliminary research conducted by Mink (1995) this archival study was based on data collected in six American organisations from Professor Mink's consulting work with The Mink Group between 1996 and 2004 with a total sample of 2228. The researcher was granted access to the data set by Professor Mink and written consent from each of the organisations from which the data was initially collected.

Method

Participants

The sample comprised 2228 participants, including 1393 males and 726 females (109 did not report gender), ranging in age from 18 to 64 years old ($\underline{M} = 34.69$; $\underline{SD} = 2.134$); 9.8% were managers; 19.6% were supervisors; and 70.6% were staff.

Materials

Open Organisations Profile

Participants completed the Open Organisations Profile. The Open Organisations Profile requires participants to rate statements on a nine-point Likert scale (1 = Strongly Disagree to 9 = Strongly Agree). Participants reported how they perceive the organisation in terms of openness for them as an individual, at their team level and at the overall organisational level. Participants completed the questionnaire online or in paper and pen format. Table 3 below outlines each dimension and a short description of what the dimension measures. The full questionnaire is shown in the Appendix A.

Table 3.
Open Organisations Profile Dimension Summary

Dimension Number	Name	Characteristic of Openness	Description
1.	Basic Values and Beliefs	Individual - Unity	The items in this set assess the extent to which the organisation has created a culture based on goals and values with which individuals identify.
2.	Self Awareness	Individual - Internal responsiveness	The items comprising this factor examine the individual's awareness internal processes and the quality of the human relationships that serve to link the various parts of the organisation.
3.	Responding to Others	Individual - External Responsiveness	This group of items looks at the extent to which people in the system are able to relate to one another in an effective manner.
4.	Shared Purpose	Group – Unity	These items evaluate the degree to which teams are working together to accomplish clearly defined goals.
5.	Interpersonal Relationships	Group – Internal responsiveness	Items in this set assess the extent to which interpersonal relationship are perceived to be effective.
6.	Cooperation with Others	Group – External Responsiveness	The items defining this factor assess the degree to which different groups work together to reach the shared purposes of the organisation.
7.	Shared Vision	Organisation – Unity	The items defining this factor examine the extent to which people identify with the purpose of the organisation and work together to achieve this shared purpose.
8.	Alignment across the organisation	Organisation – Internal responsiveness	This group of items assesses the degree and quality of information sharing and communication in the organisation.
9.	Contributing to Others	Organisation – External Responsiveness	This group of items evaluates the degree to which employees perceive the organisation as aware of and responsive to customer requirements and environment threat and opportunities.

Procedure

Shaughnessy and Zechmiester (1994) highlight a robust approach for conducting archival research involving four steps:

1. selecting a sample

2. coding the data

3. ensuring the reliability of the data

4. using quantitative or qualitative measures.

The sample selected contained 2228 cases from six organisations gathered in the years 2003 and 2004. The sample size was statistically sufficient to determine if the Open Organisations Profile has acceptable levels of reliability and a robust factor structure.

The data was initially collected using SPSS 7.0. The data from individual records was imported into SPSS 13.1 to be utilised in the current study. Dimension reliabilities and correlations between the variables were assessed using SPSS 13.1.

The data set was then randomly split to create two data sets. One data set was used to conduct an exploratory factor analysis and the other data set was used to confirm the factor structure of the Open Organisations Profile.

Shaughnessy and Zechmiester (1994) identified the biggest constraint in conducting archival research was the lack of control over how the data was collected. This issue can create concerns with data integrity, especially in terms of selective

deposits and selective survival of data (Webb, Campbell, Schwartz, Sechrest, & Grove, 1981).

The Open Organisations Profile data set was initially collected using a standardised survey template and was entered directly into SPSS. Mink (1995) also outlined the procedure used to collect the data and to ensure the useability of the data set for further research. Therefore, the integrity of the data is assumed to be intact for the following archival study. The next section of the study contains the results of the reliability and factor analyses that were conduct on the archival data set.

Results

To ensure the data set was useful the normal assumption testing for factor analysis were conducted. These assumption tests included having five to 10 subjects per variable up to a total of 300. As Tabachnick and Fidell (1999) note it is, "comforting to have at least 300 cases for factor analysis" (p.640). The current sample has over 1000 cases, which theoretical meets the test parameters regardless of the subject to variable ratio. The results were presented by descriptive statistics firstly, then the internal reliabilities of the Open Organisations Profile and finally, the analysis of factor structure and validity.

Reliability Analysis

Table 4 displays the descriptive analysis results for the nine dimensions of the Open Organisations Profile for the present study compared to the Mink (1995) study.

Table 4.

Means, Standard Deviations and Reliabilities from the Current Study (n = 2228) and Mink's (1995) Study (n = 524)

	Current Study (n = 2228)			Mink (1995) study		
	M	SD	r*	M	SD	r*
Dimensions						
Basic Values and Beliefs	59.88	13.33	.83	60.93	15.26	.89
Self Awareness	52.74	14.66	.85	58.21	16.11	.89
Responding to Others	57.66	13.01	.82	60.15	15.69	.92
Shared Purpose	59.39	14.53	.87	59.15	18.47	.94
Interpersonal Relationships	57.29	14.00	.81	62.56	17.54	.95
Cooperation with Others	58.99	12.77	.80	59.58	16.04	.93
Shared Vision	57.19	15.37	.87	51.13	18.28	.94
Alignment	62.73	18.45	.95	50.00	17.08	.92
Contributing to Others	53.41	17.54	.91	51.65	15.55	.90
Categories						
Unity	58.25	14.41	.86	57.07	17.34	.92
Internal responsiveness	57.59	15.70	.87	56.92	11.54	.92
External Responsiveness	56.69	14.45	.84	47.13	15.76	.91
Overall Openness	57.50	14.86	.85	57.04	16.67	.92

* Cronbach Alpha reliabilities are reported for each dimension, characteristic and overall openness

Table 4 reports the internal reliabilities of the Open Organisation Profile at the full scale (Overall Openness), category (unity, internal responsiveness and external responsiveness) and dimension level. The results displayed in Table 4 support the first hypothesis, as the Cronbach alpha scores demonstrated high internal consistency similar to those reported by Mink (1995) for the three categories of openness; unity, internal responsiveness and external responsiveness. The Cronbach alpha reliabilities across the categories scores were all above the criterion of $\underline{r} = .70$ (Nunnally, 1967; Tabachnick & Fidell, 2001).

Evidence also supports the first hypothesis as the current study showed high levels of internal consistency reliability across all of the nine scales of openness.

In general, the reliabilities of the Open Organisations Profile in the current study were lower than those reported by Mink (1995) and in some respects formally more acceptable as item redundancy is not so prominent. However, the Cronbach alpha scores where still well above the $r = .70$ criterion suggested by Nunnally (1967) and Tabachnick and Fidell (2001). The results of the current study could be attributed to the fact that there are over 2000 cases opposed to 524 cases in the Mink (1995) study.

Factor Analyses

Both exploratory and confirmatory factor analyses were conducted to assess the theoretically driven Open Organisations Profile. Exploratory factor analysis was utilised to explore the validity of the Open Organisations Profile. This is the first factorial analysis of the Open Organisations Profile.

A parallel analysis using the procedure provided by O'Connor (2000) was conducted to determine the correct number of factors to extract from the data. In the un-rotated solution most of the dimensions loaded on a single factor providing evidence for a general factor of openness consistent with the hypothesised model. The parallel analysis suggested that three factors should be extracted from the data set.

The three-factor oblique (Direct Oblimin) rotated solution was found to best represent the present data. Both the oblique (Direct Oblimin) and orthogonal (Varimax) rotated factor solutions produced highly similar results. However, the oblique rotated factor solution involved a relatively good spread of item loading across the factors and was the most meaningful to interpret theoretically. The confirmatory results utilising the oblique models provided better model fit statistics (i.e. closer to the recommended model fit statistic values) than the orthogonal models assessed. Factor loadings for the three factor oblique rotated solution is presented in Table 5.

Table 5.

Factor Loadings for the Three Factor Oblique Rotated Exploratory Solution

| Dimension | Factors | | |
	1 Unity	2 External Responsiveness	3 Internal responsiveness
Shared Purpose	**.861**		.110
Basic Values and Beliefs	**.827**	.138	
Shared Vision	**.824**	-.258	-.188
Contributing to Others	.124	**.848**	-.119
Cooperation with Others	-.367	**.632**	-.214
Interpersonal Relationship		**.626**	-.277
Responding to Other		.	**.723**
Self Awareness	.418	-.111	**.548**
Alignment			**.412**

Note: factor loadings have been sorted ascending. The highest loading items on each factor are presented in bold face and item loadings <.1 have been omitted.

These three factors accounted for 53.3% of the variance (30.4%, 7.4%, 6.3% respectively), in the data set. The first factor that emerged in the exploratory analysis comprised three dimensions: shared purpose, basic values and beliefs and shared vision.

This factor could be interpreted as representing the unity characteristic that was developed by Mink et al. (1991) given the preponderance of the high loading on this factor.

The second factor that emerged in the analysis comprised thee dimensions: Contributing to Others, Responding to Other and Interpersonal Relationships, and as such could be interpreted as representing external responsiveness. However the Interpersonal Relationships subscale does not theoretically belong in this characteristic of openness. The theoretically Open Organisations Model would have Interpersonal relationships in the internal responsiveness characteristic.

The third factor that emerged in the exploratory factor analysis comprised two of the three subscales from the initial internal responsiveness scale; Self Awareness and Alignment and cooperation with other. Cooperation with other is theoretically perceived as a subscale in the external responsiveness scale.

In summary, the hypothesised three factor models emerged in the exploratory analyses though not as clearly as anticipated. While some factors were predominantly defined by one of the theoretical scales (e.g. the first factor comprised all original subscales), in general, the subscales of the Open Organisations Profile did spread over the factors that emerged in the analyses and may best be described as three higher order factors that represent (1) unity; (2) internal responsiveness; (3) external responsiveness.

Confirmatory Factor Analysis

The data set for the confirmatory factor analysis comprised the second half of the original archival data set. Confirmatory factor analysis was performed to compare the extent to which the different hypothesised factor solutions provided a fit with the present data. Specifically, the three-factor model (both oblique and orthogonal variants), hypothesised by the current study was compared against the theoretical model proposed by Mink, et al. (1991). Three fit indices were chosen to compare the degree of fit for each model; the Normed Fit Index (NFI; Bentler & Bonett, 1980); the Comparative Fit Index (CFI; Bentler, 1990) and the Root-Mean-Square Error of Approximation (RMSESA; Steiger, 1990). Table 6 lists the fit indices obtained for both the orthogonal and oblique measures of the three-factor Openness Organisation Profile.

Table 6.

Fit Statistics for the Hypothesised Measures of Open Organisations Profile

Fit Statistic	3OB[f]	3OR[g]
CMIN[a]	1836.56	2026.25
Df[b]	453	486
NFI[c]	.909	.872
CFI[d]	.916	.898
RMSEA[e]	.096	.098

Note: a = Chi-square statistic; b = Degrees of Freedom; c = Normed fit index; d = Comparative fit index; e = Root Mean Square Error of Approximation; f = three factor higher order model (Oblique); g = three-factor higher order model (Orthogonal).

As can be seen in Table 6, only the hypothesised oblique model fit the present data well according to all three model fit statistics. The oblique model displayed CFI and NFI values were above 0.90 and all of the RMSEA values exceeded 0.08 (McDonald & Ringo-Ho, 2002). To test whether the hypothesised oblique three factor high-order presented in Table 6, provided a statistically better fit with the data the other measure (which was the three factor orthogonal measure) the difference in chi square values of these models was calculated as per the procedure outlined by Byrne (2001).

According to the difference in chi square values of these models, the hypothesised oblique three-factor model was found to provide a statistically better fit with the present data than the three-factor orthogonal model (i.e. $\underline{X}^2$ (33) =2026.25 – 1838.56 = 187.69, $\underline{p}$<.01). Hence, it could be argued that the oblique three factor model provided the best fit with the present data.

The oblique three factor model was found to provide a statistically acceptable fit with the present data according to the standard model fit statistics. The results of the exploratory factor analysis supported the oblique three factor model. The oblique three factor solution was found to best represent the present data in the exploratory analyses that were defined to some extent by each of the theoretical factors.

For example, the first factor comprised all three subscales of unity, the second factor represented two out of the three subscales in External responsiveness and finally the third factor comprised two of the three subscales in internal responsiveness. This finding suggests that there is a substantial amount of specific and error variance associated with each of the tests involved in the current study. It also provides support

for the three factor oblique model, which provided the best fit in the confirmatory analyses.

By conducting an exploratory analysis to determine the internal construct validity of the Open Organisations Profile preliminary support was provided for the second hypotheses. The evidence to support this hypothesis was further strengthened by conducting the confirmatory factor analysis. Therefore, the evidence supports the construct of unity at the three living system theory levels.

Discussion

The results of the confirmatory factor analyses did present some interesting findings that are worthy of discussion. Firstly, the model fit statistics for the oblique factor models were generally better than those for the orthogonal factor models that were tested. This finding suggests openness may best be conceptualised as a set of related yet distinct variables as most of the items loaded on a single factor in the un-rotated exploratory factor analysis providing evidence for a general openness factor. As such, it could be concluded that openness may best be conceptualised as a unifactoral construct.

A systemic comparison of the variables (by definition) measured by the different items of the Open Organisations Profile assessed by the current study lead to a theoretically derived three-factor general framework for openness. Some support for this hypothesised model was found by the current study and the findings of both the confirmatory and exploratory analyses will inform future research in the area. Further research (possibly following the development of a shorter diagnostic) is needed in order

to substantiate whether the three-factor model of openness identified in the current study is replicable with other data sets.

A three-factor model of openness was theoretically derived from a living systems framework. While this model was found to provide a statistically acceptable fit with the present data according to standard model fit criteria, it was found that the Cronbach Alpha coefficients were high and suggests that the survey instrument should be re-evaluated with a reduced question set. As discussed by McDonald and Ring-Ho (2002), conclusions drawn on the basis of SEM results should not be purely data-driven. While model fit can be taken to imply that the hypothesised model is supported by the data, there are a number of unresolved problems (as outlined by McDonald & Ring Ho) with criterion indices of model fit. McDonald and Ring Ho recommend that competing models should be specified *a priori* (as done by the current study), and the relative goodness of fit reported.

Accordingly, it was stated in the introduction of this chapter that the model that provided the best degree of fit with the present data would be taken to best represent the dimensional communality amongst the models and measures of openness assessed.

The findings of the current study suggest that a model for openness will most likely comprise a general factor represented by a number of related facets. Such taxonomy would be useful in that it would provide a common definition and understanding about the nature of the construct. Based on the findings of the current study openness can be defined as a conceptually related set of categories which reflect the factors identified by Argyris (2006) and other researcher in the field of complexity

sciences (Capra, 2004, Stacey, 1997), specifically, the factors of unity, internal responsiveness and external responsiveness.

Overall, the findings from this study support the psychometric standing of the instrument and at least partially support the three factors, nine dimension model developed by Mink (1995). The next study will examine the similarities and differences in Australian and American data set using the Open Organisations Profile.

Chapter 3

Study 2 - A Comparison of Openness in Australian and American Organisations

Introduction

Study two examined data sets collected from six American and nine Australian organisations using the Open Organisations Profile. The study aimed at gathering information to identify the differences and similarities between Australian and American workforces in building and maintaining openness. This was the first known study of its kind conducted in Australia.

Cross-cultural examinations of similarities and differences in organisations have become more prevalent in the last 10 years. Cross-cultural organisational research is a growing area of interest for many researchers as organisations become more globalised, interconnected and highly responsive. The growth is illustrated by the recent appearance of textbooks in cross-cultural psychology as a whole (Berry, Poortinga, Segall, & Dasen, 1992, 2002; Brislin, 1993; Lonner & Malpass, 1994; Segall, Dasen, Berry, & Poortinga, 1990), and cross-cultural organisational psychology (Adler, 1991; Ashkanasy & Daus, 2005; Bartram, 2004; Denison, Haaland, & Goelzer, 2004; Erez & Earley, 1993; Gendron, Shanks, & Alampi, 2005; Patterson et al., 2005; Triandis, Dunnette, & Hough, 1993a; Van de Vliert, 2006), as well as a recent edition of the Handbook of Cross-Cultural Psychology (Berry, Poortinga, Segall, & Dasen, 2002).

The study of organisational openness has not received the coverage it well might deserve in cross-cultural organisational research. A number of important cross cultural studies have been undertaken to understand areas such as values (Schwartz,

1992; Schwartz, 1994), leadership (Campbell, Bommer, & Yeo, 1993), group processes (Bond & Smith, 1995) and work behaviour (Hofstede, Bond, & Luk, 1993; Hofstede, Neuyen, Ohayv, & Sanders, 1990); however, no research has been conducted to compare Australian and American organisations on openness.

However, in one reported study, Chen, Lui and Tjosvold (2005) examined the conflict management skills of the top management teams in 105 organisations in China. They interviewed a total of 378 executives to understand five key factors of conflict management, including openness to new ideas. The study revealed that top executives who created a more open environment where conflict was accepted as a natural part of human interaction showed higher levels of innovation and collaboration and increased team effectiveness. This study showed that the concept of openness may be a valuable one to be explored, in terms of cultural differences and similarities.

A number of cross-cultural studies comparing American and Australian organisations have been undertaken, even though no previous studies have assessed the factors associated with openness. Telecom Australia (1994) identified that Americans and Australians have different views and perceptions of quality. Australians primarily perceived quality in terms of the relationships they have with those around them and the organisation with which they are involved; whereas Americans perceived quality as, 'it works' (Hull & Read, 2003, p. 13).

The Karpin report (1995) is another important study that attempted to understand how Australia might compare to other countries, like America, on management capability and organisational performance. The purpose of the Karpin

report (1995) was to understand the areas Australian organisations could undertake to improve their performance on the world stage.

The report found Australian managers and supervisors differed significantly from their Asian and North American counterparts. One of the key areas for improvement for Australian managers was to build leadership capabilities and behaviours, not just management competencies. Furthermore, the report suggested special emphasis was needed in developing the interpersonal skills of Australian managers and supervisors. However, the report also recognised that openness to internal and external environment is necessary to improve the way Australian businesses respond to the marketplace (Industry Task Force on Leadership and Management Skills, 1995). The report, however, did not list ways in which the degree of openness could be assessed. The Open Organisations Profile provides one such measure.

In one more example, an Australian Study sponsored by the Australian Business Council conducted by Hull and Reed (2003) set out to identify a number of excellent workplaces in Australia and draw conclusions concerning the nature of excellence at work. This extensive research revealed 15 significant factors that differentiated excellent workplaces from generally good workplaces around the country. Table 7 outlines the 15 key factors and gives a short description.

Table 7.

Hull and Reed's (2003) 15 Factors for Excellent Organisations

Factor #	Factor	Description
1.	The quality of working relationship	People relating to each other as friends, colleagues, and co-workers, supporting each other, and helping to get the job done.
2.	Workplace leadership	How the immediate supervisor, team leader, manager or coordinator presented himself or herself. Their focus of leadership and energy, not management and administration
3.	Having a say	Participating in decisions that affect the day-to-day business of the workplace.
4.	Clear Values	The extent to which people could see and understand the overall purpose and individuals behaviours expected in the place of work.
5.	Being safe	High levels of personal safety, both physical and psychological. Emotional stability and a feeling of being protected by the system.
6.	The built environment	A high standard of accommodation and fit out, with regards to the particular industry type.
7.	Recruitment	Getting the right people to work in the location is important, and they need to share the same values and approach to work as the rest of the group.
8.	Pay and condition	A place in which the level of income and the basic physical work conditions (hours, access, travel and the like) are met to a reasonable standard. At least to a level that the people who work there see as reasonable.
9.	Getting feedback	Always knowing what people think of each other, their contributions to the success of the place, and their individual performance over time.
10.	Autonomy and uniqueness	The capacity of the organisation to tolerate and encourage the sense of difference that excellent workplaces develop. Their sense of being the best at what they do.
11.	A sense of ownership and identity	Being seen to be different and special through pride in the place of work, knowing the business and controlling the technology.
12.	Learning	Being able to learn on the job, acquire skills and knowledge from everywhere, and develop a greater understanding of the whole workplace.
13.	Passion	The energy and commitment to the workplace, high levels of volunteering, excitement and a sense of well-being. Actually wanting to come to work.
14.	Having fun	A psychologically secure workplace in which people can relax with each other and enjoy social interaction.
15.	Community connections	Being part of the local community, feeling as though the workplace is a valuable element of local affairs.

The factors identified by Hull and Read (2003) separate good Australian organisations from excellent organisations. Excellent organisations actively work toward promoting their 15 key factors to improve organisational effectiveness. The Open Organisations Model shares a number of these key factors, such as quality of working relationship, which is measured via interpersonal relationship; clear value which is measured via the Basic Values and Beliefs dimension and community connection which is measured by the dimension called Contributing to Others. The study below will explore how these factors affect organisational effectiveness in Australian and American organisations.

The purpose of this current study was to present the findings from Open Organisations Profile and compare American and Australian organisations to determine the similarities and difference on the dimensions of openness (Mink, Mink, Downes, & Owen, 1994).

A number of hypotheses were tested within the confines of the present study. The hypotheses were:

(H1) Australian males and females would demonstrate significantly higher scores than American males and females on the dimension of basic values and beliefs.

(H2) Australian males and females would show significantly higher scores than American males and females on the dimension of self awareness.

(H3) Australian males and females would express significantly higher scores than American males and females on the dimension of responding to others.

(H4) Australian males and females would show significantly higher scores than American males and females on the dimension of interpersonal relationships.

(H5) American males and females would express significantly higher scores than Australia males and females on the dimension of alignment.

The rationale for these five hypotheses is grounded in the work of Hull and Reeds (2003) and the quality archetype study conducted by Telecom (1994) which examined the attitudes, behaviours and cultural differences that existed between America and Australia on the constructs of quality and service delivery. These two studies share a number of key variables that are examined in the Open Organisations Profile. The findings from this current study will deepen the understanding of how Australian and American workers perceive the categories of openness across the two countries. The explorations of these differences and similarities form the basis of the stated hypotheses above.

Method

Participants

The sample comprised 1590 Australian participants (738 females, 650 males, and 202 unreported) and 831 American participants (309 females, 348 males, and 174 unreported). The Australian sample ranged in age from 22 to 61 years ($\underline{M}$ = 32.78; ($\underline{SD}$ = 3.321). The American sample ranged in age from 20 to 59 years ($\underline{M}$ = 36.46; $\underline{SD}$ = 2.181). Of the overall sample (both Australian and American), 10.4% had been with their organisation for less than one year, 17.9% for one to three years, 35.2% four to seven years, 7% eight to ten years, and 2.7% for more than ten years. 32.4% are currently managers, 9.6% are currently supervisors and 58% are employees or general staff. The data was collected between February 2005 and August 2006.

Materials

Participants completed the Open Organisations Profile a survey instrument, comprising nine dimensions designed to measure the three high order factors of openness, unity, internal and external responsiveness. The Open Organisations Profile was developed for leaders and managers to assess the openness of their organisation based on the theoretical Open Organisations Model.

As indicated in study one, the Open Organisations Profile requires participants to rate statements on a 9-point Likert scale (1 = Strongly Disagree to 9 = Strongly Agree), how they perceive the organisation in terms of openness. Participants either completed the questionnaire online or in paper and pen format. (See Appendix A for the questionnaire).

Procedure

Participants were asked to voluntarily complete a self-administered survey either online as requested by an organisational leader or paper and pen format in groups of 10 – 25. All surveys were collected within standard ethical practices and within the principles approved by Bond University's Ethics Committee. *T* tests were conducted on the data to compare the means of the two samples. Three sets of multivariate analyses of variance (MANOVAs) and univariate analyses of variance (ANOVAs) were conducted with the Open Organisations' scales as the dependent variables and country of origin as the independent variable.

The MANOVA on the nine basic scales yielded significant multivariate effect associated with country of origin, Wilks's lambda (.75), F (11, 2275) = 7.62, p < .05. To ensure the data set exhibited a suitable level of normality a number of assumptions for data integrity were assessed.

Firstly, using the Levene's test for homogeneity of variance the null hypothesis was rejected (p = .386). Therefore, it can be suggested differences between the variances is zero and that equal variance is assumed.

T tests comparing the Open Organisations Profile scales indicated several statistically significant mean score differences (See table 8). The data shows hypothesis one was supported by the data with both Australian females (M = 61.79, SD = 16.29) and males (M = 62.27, SD = 14.25) displaying significant differences (p<.05) compared to American females (M = 59.65, SD = 13.54) and males (M = 59.62, SD = 13.16) on the dimension of basic values and beliefs.

Hypothesis two was partially supported by the data as Australian females (M = 55.08, SD = 17.60) demonstrated a significant difference (p<.05) compared to American females (M = 52.95, SD = 14.76) on the dimension of self-awareness. The *t tests* for Australia males compared to American males did not support hypothesis two.

Hypothesis three was again partially supported by the data as Australian females (M = 58.74, SD = 16.29) showed a significant difference (p<.05) compared to American females (M = 57.02; SD = 14.01) on the dimension of responding to others. The data comparing Australian males and American males did not support hypothesis three.

Hypothesis four was supported by the data in the current study. Both Australian males (M = 60.09, SD = 15.64) and females (M = 59.58, SD 17.17) showed a significant difference (p<.05) compared to American males (M = 56.37, SD 13.59) and females (M = 55.86, SD = 14.26) on the dimension of interpersonal relationships.

The final hypothesis was supported by the data in that both American females (M = 63.19, SD = 17.74) and males (M = 64.72, SD = 17.36) showed a significant difference (p<.05) compared to Australian females (M = 60.52, SD = 20.51) and males (M = 61.24, SD = 19.49) on the dimension of alignment. This is the only dimension in which both American males and females displayed a positive significant difference compared to Australia males and females.

Table 8.

Comparison of Open Organisations Profile Scale Scores between Australian and American Study Participants by Gender

| | Male | | | | | | Female | | | | | |
| | Australian (n = 638) | | American (n = 341) | | | | Australian (n = 1568) | | American (n = 819) | | | |
Scale	M	SD	M	SD	df	P<	M	SD	M	SD	df	p<
OOP	535.06	119.84	525.80	106.04	923	.228	530.11	138.57	521.85	107.92	2255	.120
U	181.94	40.49	176.74	37.89	951	.054	179.87	47.65	176.89	38.07	2306	.104
IntR	176.52	42.99	174.43	37.32	955	.436	175.16	48.05	172.10	38.26	2339	.093
ER	175.72	40.66	173.15	35.92	954	.312	174.27	46.54	171.34	36.76	2335	.096
BV&B	62.27	14.25	59.62	13.16	975	.005*	61.79	16.29	59.65	13.54	2363	.001*
SA	55.19	16.05	53.15	14.77	975	.053	55.08	17.60	52.95	14.76	2380	.002*
RTO	59.45	14.22	57.66	13.20	972	.056	58.74	16.29	57.02	14.01	2372	.008*
SP	60.85	15.66	59.25	14.58	982	.119	60.04	18.12	59.32	15.04	2381	.302
IR	60.09	15.64	56.37	13.59	974	.000*	59.58	17.17	55.86	14.26	2374	.000*
CWO	59.44	15.35	59.69	12.46	976	.784	59.55	17.09	58.93	13.05	2385	.325
SV	58.58	16.06	57.52	14.97	965	.316	57.93	18.13	57.73	15.27	2347	.775
A	61.24	19.49	64.72	17.36	973	.004*	60.52	20.51	63.19	17.74	2378	.001*
CTO	56.91	16.91	55.63	16.52	972	.259	55.97	18.45	55.31	16.60	2368	.392

Note: Open Organisations Profile = Open Organisation Profile; U = Unity; IntR = Internal responsiveness; ER = External Responsiveness; BV&B = Basic Values and Beliefs; SA = Self-Awareness; RTO = Responding to Others; SP = Shared Purpose; IR = Interpersonal Relationships; CWO = Cooperation with Others; SV = Shared Vision; A = Alignment; CTO = Contributing to Others.

* Significant $p < .05$

Because the two groups differed in terms of nationality, an additional follow up 2 x 2 MANOVA was conducted on the all *t* test significant scores. For this analysis participants were classified as either being American female or male (n = 831) or an Australian male or female (n = 1590). A 2 x 2 MANOVA was conducted with country of origin and gender as independent variables and Basic Values and Beliefs, Self-Awareness, Responding to Others, Interpersonal Relationship and Alignment as the dependent variables.

The purpose of this follow-up analysis was to see if the differences between the two groups in terms of gender may have contributed to the effects observed associated with country of origin. This 2 x 2 MANOVA yielded a significant multivariate effect associated with country of origin, Wilk's Lambda = .91 F (5, 2257) = 8.96, p. <.05; a significant multivariate effect associated with gender, Wilk's Lambda = .95 F (5, 2257) = 4.41, p. <.05; and a non-significant multivariate effect associated with country of origin x gender interaction, Wilk's Lambda = .99 F (5, 2257) = 0.49, p. <.05.

Follow up 2 x 2 univariate analyses of variance were conducted for each of these scales comparing participants classified in terms of gender by country of origin. For Basic Values and Beliefs the univariate follow-up analysis yielded a significant main effect associated with country of origin, F (1, 2257) = 22.85, p <.05; a significant univariate main effect associated with gender for Basic Values and Beliefs F (1, 2257) = 24.78, p<.05; and a significant main effect with gender by country of origin interaction effect, F (1, 2257) = 19.06, p <.05.

For Self-Awareness the univariate follow up analysis yielded a significant main effect associated with country of origin $F_{(1, 2257)} = 22.24$, $p < .05$; a significant main effect associated with gender for Self-Awareness $F_{(1, 2257)} = 28.89$, $p < .05$; and a significant main effect with gender by country of origin interaction effect $F_{(1, 2257)} = 17.16$, $p < .05$.

For Responding to Others the univariate follow up analyses yielded a significant main effect associated with country of origin, $F_{(1, 2257)} = 14.47$, $p < .05$; a significant main effect associated with gender $F_{(1, 2257)} = 15.46$, $p < .05$; a non significant gender by country of origin interaction effect $(1, 2257) = .034$.

For Interpersonal Relationships the univariate follow up analyses yielded a significant main effect associated with country of origin, $F_{(1, 2257)} = 25.12$, $p < .05$; a significant main effect with gender $F_{(1, 2257)} = 23.64$, $p < .05$; a significant main effect with gender by country of origin interaction effect $F_{(1, 2257)} = 26.22$, $p < .05$.

For Alignment the univariate follow up analyses yielded a significant main effect associated with country of origin, $F_{(1, 2257)} = 16.46$, $p < .05$; a significant main effect with gender $F_{(1, 2257)} = 12.11$, $p < .05$; a significant main effect with gender by country of origin interaction effect $F_{(1, 2257)} = 14.73$, $p < .05$. This means differences between Australians and Americans were supported in terms of gender may have contributed to the effects observed associated with country of origin. Overall, for each variable the results showed the effects observed with comparing American and Australian on the variable of gender support the initial findings found in the *t tests*.

Discussion

The results of this study showed there are similarities and differences in the way Americans and Australians interpret organisational openness. The similarities were in the dimensions of Shared Purpose, Cooperation with Others, Shared Vision and finally Contributing to Others. Interestingly, the dimensions of Shared Purpose and Shared Vision are factors associated with the Unity characteristic of openness. Furthermore, the dimensions of Cooperation with Others and Contributing to Others are factors aligned with the External Responsiveness characteristic of openness.

Multivariate analysis using country of origin suggests there are four key factors that differentiate Australian and American participant's interpretations of openness.

As predicted both Australian females and males demonstrated significant difference on basic values and beliefs compared to American females and males. As the present study is the first to directly compare both genders from Australia and America on their perception of basic values and beliefs in relation to openness, it is possible to conclude that there is, for both males and females in Australia a need to have personal values and beliefs reflected in the organisational culture in which they work. Whereas, in American organisations the need for males and females to have their basic values and beliefs align to the purpose of the organisation is not so important.

The dimension of Self-Awareness also presented a significant relationship between country of origin and gender differences. However, the effect was only significant when comparing American and Australia females. Australian females displayed higher scores on self-awareness than did American females. That is, more Australian females believe self awareness is an important attribute in the workplace than

do American females. There was no statistically significant effect when comparing Australian and American males on this dimension.

The Responsiveness to Others dimension displayed a significant effect by the country of origin and also by gender. However, the interaction effect was non-significant. It is worth mentioning this measure as if it had been significant at the interaction effect, it would have shown that Australian females displayed all three categories of openness at the individual level of the Open Organisations Profile compared to American females.

The *t* tests scores did not support any significant comparisons between American and Australian participants on the three key categories of openness; however, the measure of unity was near significance (p<.054). This finding of a non significant relationship at the Responsiveness to Others dimension is also interesting in terms of the research conducted by Telecom Australia (1994) which showed that Australians have a preference for building strong interpersonal relationships. This current result goes someway to supporting this finding. However, the non-significant findings on the Responding to Others dimension requires further research.

Responding to Others appears to measure something different from building interpersonal relationships as discussed next. In this regards, the findings with respect to the specific dimension of Interpersonal Relationship did support the earlier Telecom Australia (1994) study. Australian men and women again showed a stronger preference when compared to American men and women, on this dimension of Interpersonal Relationship. The interesting finding here is that Australians value strong interpersonal relationship with people from within the organisation and not external to the organisation as shown in the dimension scores for Responding to Others.

These results have implications for the way Australian leaders think about customer service, customer satisfaction and service quality initiatives that are focused on building higher levels of external responsiveness (e.g. more sales, increase market share, improve outcomes, product development, innovation, and creating new markets). As the data collected in the current study suggests, Australians' have a preference for building internal relationship with people from within the organisation. Therefore, when building externally responsive 'customer-centric' initiatives, it could be important to ensure the people involved have strong interpersonal relationships with each other, otherwise they may not respond as effectively to the external customers.

As predicted, there was a significant main effect on the dimension of Alignment. Both genders in the American sample showed a strong need to align resources, goals and information to meet the organisation's purpose and increase openness. Americans showed a stronger preference for having internally responsive business units that openly share information.

This finding has an effect for how Australian managers and leaders consider aligning resources across the business. Based on the findings from the current study, the best way to align resources across the organisation is by building strong interpersonal relationship between departments and providing them with easy to use information and data sharing tools.

The findings of the current study highlighted Australian organisations rate differently on the measures of openness when compared to American organisations and these differences occur across both males and females. The results suggest Australian and

American researchers need to take culture into account when evaluating the factors impacting on organisational effectiveness.

The study also showed there are significant cultural differences in what employees, managers, and leaders need to do to create adaptive, open organisations. It is important for leaders to consider these factors when designing organisational structures, go-to-market strategies, customer improvement programs, leadership and executive development programs, improved service delivery, quality, innovation and continuously increase the rate of improvement of culture and performance.

For leaders, the findings offer insights into what factors to emphasise when creating and maintaining a more adaptive and open organisations. For example research conducted by Hull and Read (2003) and Telstra (1994) also found that Australians have a preference for building relationships. As noted by Hull and Read (2003) leaders need to live the values that they espouse, build trust and act ethically. The findings of the present study show strong support for the findings of the Hull and Read (2003) study.

While the differences between Australian and American participants have been discussed, there were also a number of similarities in the results. The dimensions which suggested non significant differences included: Shared Purpose, Cooperating with Others, Shared Vision and Contributing to Others.

The dimensions of Shared Purpose and Shared Vision are both dimensions of the measure of unity. The results could suggest in Australia and America the need for a clear set of guidelines and actionable goals is imperative. As noted by Mackavey et al (1998) a shared purpose and vision provides leaders and employees with a clear expectation of what success looks like. Furthermore, as noted by Handy (2001) a shared vision and

purpose allows people to question the value and logic of everyday decisions, i.e. is this piece of work going to assist us in offering a better service to our customer? In a complex, adaptive organisation where many competing goals are requesting resources, a shared vision and purpose allows leaders and employees to keep the organisation moving towards it's higher order goals and to set decision priorities (Gates, 1999).

The dimensions of Cooperation with Others and Contributing to Others both external responsiveness measures also produced a non-significant difference between the Australian and the American sample. These dimensions were also assessed by Hull and Read (2003) and were found to be top drivers of excellence in Australian organisations. However, the present study does not provide any insights into how important cooperation with others or contributing to others is across American and Australian samples.

This has been the first known research study that compares openness across two cultures. The research provides some answers as the similarities and differences in openness in Australian and American organisations, but raises a number of questions. An urgent question would be how is openness related to performance or and organisations ability to deliver high levels of performance over time. Furthermore, research could also be conducted to assess how the perceptions of managers and employees of openness impact on their abilities to establish, set and meet goals to improve the performance of the organisation.

It would also be interesting to understand what differences exist between unity, internal and external responsiveness over time, as well as across cultures. The present study offers no insight into how the categories of openness; unity, internal responsiveness and external responsiveness; change or impact on organisational effectiveness. Time

series data and a research design that uses the Open Organisations Profile to track organisation's performance over time could prove useful.

Research efforts might also be undertaken to explore the effect of a focused intervention in each dimension of the Open Organisations Model and determine which factors have the greatest impact on overall organisational effectiveness. Further research could also focus on understanding the differences between public and private organisations and their interpretations of openness and the relationship to overall organisational effectiveness. Finally, further inter-disciplinary research could be conducted to establish an openness blueprint for improving performance based on the types of outcomes the organisation is interested in achieving.

This current study has examined the Australian and American organisational culture, using the Open Organisations Profile, in particular the nine dimensions. It showed similarities on the dimensions of Shared Purpose, Cooperation with Others, Shared Vision and Contributing to Others. Significant differences on the dimensions of Basic Values and Beliefs, Self Awareness, Responding to Others, Interpersonal Relationships and Alignment were demonstrated. Australian organisations are more focused on the Basic Values and Beliefs, Self Awareness, Responding to Other and Interpersonal relationships dimensions. These results are consistent with known results from earlier Australian studies. In addition it was noted that in general males and females responded similarly within their cultures. More research is needed to examine how the openness dimensions relate to actual organisational performance. One such study is the next study reported in this thesis.

Chapter 4

Study 3 - Predicting Sales Performance and Customer Satisfaction using the Open

Organisations Profile

Introduction

Assessing the applied value of the Open Organisation Model and its measurement

instrument, the Open Organisations Profile, requires an indication of how the Open

Organisations Profile actually works in practice. This chapter reflects this step and

examines the relationships between the Open Organisations Profile dimensions, sales

performance and customer satisfaction.

Organisations attempt to build and maintain high levels of organisational

effectiveness so they can service their customers and increase the quality and profitability

of their offering. The service profit chain (Heskett, Jones, Loveman, Sasser, &

Schlesinger, 1994) provides a plausible link between organisational effectiveness and

customer satisfaction and financial sustainability. Stated simply, the service profit chain

asserts that satisfied and motivated employees produce satisfied customers, and satisfied

customers tend to purchase more, increasing revenue, profits, and outcomes of the

organisation.

Heskett, Sasser and Schlesinger (1997) defined the service profit chain (see figure

2 below) as "involving direct and strong relationships between profit, growth, customer

loyalty, customer satisfaction the value of the goods and services delivered to customers

and employee capability, satisfaction, loyalty and productivity" (p.11). Heskett et al.

recommended the service profit chain as a framework for constructing a strategic

organisational vision, and suggested that provided service chain concepts are carefully

interpreted and adapted to an organisation's specific situation, they are capable of

delivering "remarkable results" (p.18).
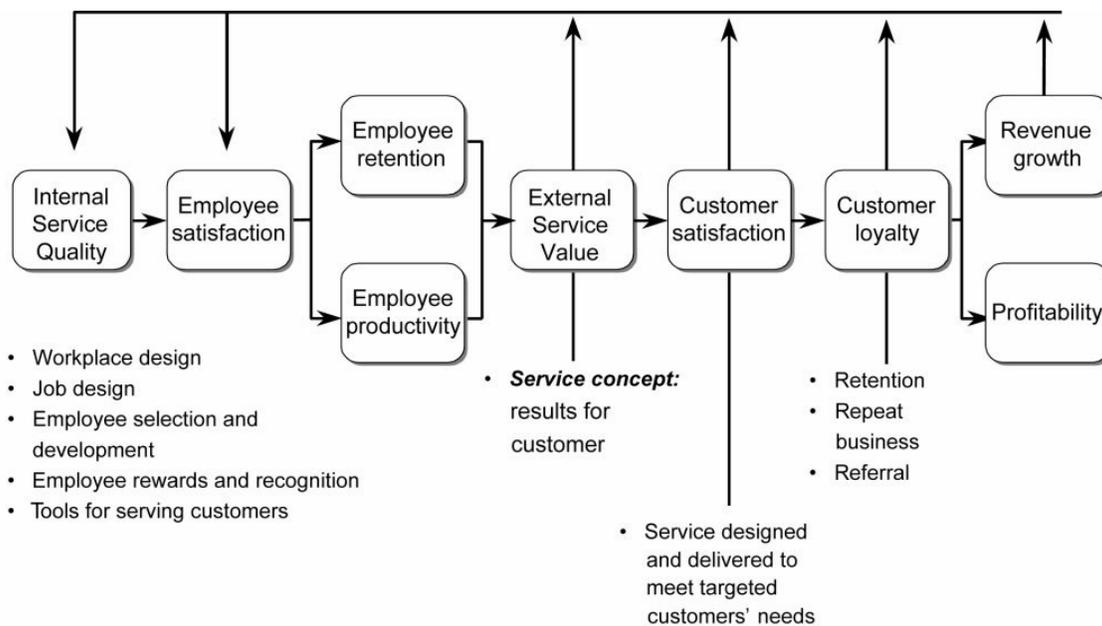
Figure 2.
The Service Profit Chain Model

As Allen and Grisaffe (2001) have remarked, ideas like the service profit chain

have had considerable influence in management circles and it is therefore important for

organisational psychologists, business researchers and managers to examine them

critically. To date however, most investigations of the service profit chain have

considered only bivariate relationships between relevant variables, such as the impact of

employee opinion on organisational performance (Wiley & Brookes, 2000).

Gelade and Young (2005) conducted a strict test of the service profit chain within the broader context of organisational functioning. They used the service profit chain to investigate the relationships between organisational climate, employee attitudes, customer satisfaction and sales performance in the retail-banking sector. The study used the variable of customer satisfaction as a mediator between employees' attitudes and sales performance. Although this study showed some interesting results, such as there was a significant mediating effect of customer satisfaction on employees' attitudes and sales performance, the effect was too small to be of practical importance. Furthermore, the study was conducted at the business unit level of the organisation not at the overall organisational level; therefore the overall mediating effects of the study could not be assessed.

As usually conceived by its proponents, the service profit chain is thought to involve an association between employee satisfaction and customer satisfaction (Gelade & Young, 2005; Heskett, Sasser, & Schlesinger, 1997; Rucci, Kirn, & Quinn, 2000; Wiley & Brookes, 2000). Reported correlations between customer satisfaction and a wide range of employee perceptions provide evidence to suggest that favourable employee opinion and attitudes such as commitment, satisfaction and positive evaluations of organisational climate are associated with evaluated levels of customer satisfaction.

Schneider, Bowen, Ehrhart and Holcombe (2000) state that job satisfaction and commitment surveys when aggregated to the organisational level "reveal significant relationships with customer satisfaction"(p.32). Further evidence comes from research on climate by Schneider and Bowen (1985), Schneider and Bowen (1992), Schneider, Parkington and Buxton (1980), and Schneider, White and Paul (1998) who have

demonstrated that employee attitudes of "climate for service" predict levels of customer satisfaction.

Studies by Schmidt and Allschield (1995) and Johnson (1996) also support the notion of a link between favourable climate and enhanced customer satisfaction when measured at the organisational level. The measurement of climate constructs are clearly different from more affective attitudinal dimensions (such as job and organisational satisfaction and organisational commitment). However, research evidence suggests there is evidence that favourable climate measures are associated with high levels of satisfaction and commitment (Gunter & Furnham, 1996; Johnson & McIntye, 1998; Kline & Boyd, 1991; Muchinsky, 1977; Ostroff, Kinicki, & Clark, 2002; Welsch & Van, 1981). Therefore, it is not surprising to find that both attitude measures and climate measures have been found to correlate with customer satisfaction.

In a recent study Harter, Schmidt and Hayes (2002) found strong evidence that employee engagement measures correlated with customer satisfaction. In many similar studies it appears that favourable experiences in the workplace are associated with favourable experiences for the customer (Gelade & Ivery, 2003; Gelade & Young, 2005; Hull & Read, 2003).

In summary the empirical evidence provides a broad measure of support for the employee-customer link in the service profit chain. This study will thus attempt to assess the relationships between the dimensions and categories of the Open Organisations Profile and the customer link in the service profit chain.

The second critical element of the service profit chain is the link between customer satisfaction and financial performance. Management theorists and leaders have

often argued that superior business performance depends critically on satisfying the customer (Heskett, Sasser, & Schlesinger, 1997; Mink, Owen, & Mink, 1993; Peters, 1988, 2003; Peters & Waterman, 1982). In support of this view consumer researchers have established that customers who are satisfied with a supplier report stronger intentions to purchase from that supplier than do dissatisfied customers (Anderson & Sullivan, 1993; Mittal, Kumar, & Tsiros, 1999; Zeithaml, Berry, & Parasuraman, 1996).

However, as noted by Verhoef, Frances and Hoekstra (2001) the link between customer satisfaction and intent to purchase behaviour as opposed to actual purchase behaviour is less well established. Indeed, the results that are available are mixed with both positive findings (Bolton, 1998; Bolton & Lemon, 1999) and neutral findings (Henning-Thurau & Klee, 1997; Verhoef, Franses, & Hoekstra, 2001).

At the organisational level of analysis, relationships between customer satisfaction levels and financial performance have been reported by both consumer and organisational researchers. Correlations between customer satisfaction and financial performance in the restaurant sector has been noted by Bernhardt, Donthu and Kennett (2001) and in the retail sector by Rucci et al. (2000). In the banking sector Loveman (1998) found higher customer satisfaction leads to increased cross-selling at the branch level, and Ittner and Lacker (1999) found customer satisfaction was a lead indicator of revenue and growth in the customer base. Overall and despite some negative findings these results support the general conception of a link between customer satisfaction and financial performance.

The second part of this study examines the effect of organisational openness on financial performance, in particular sales performance. The research outlined above

indicated the need to explore the relationship between effective customer service, financial success and the categories of organisation openness.

To summarise, the service profit chain is a conceptually appealing theory of organisational performance and the empirical evidence suggests that it may be an applicable model to assess the relationships between customer satisfaction and financial success and the dimensions of openness in the Open Organisations Profile. However, the central proposition of the service profit chain is that customer satisfaction mediates (either partially or completely) the relationship between employee experiences and financial performance. With one exception, this conjecture has not been tested. Gelade and Young (2005) attempted to explore the mediation effect, the results showed a positive but small mediating effect, however, the result was not of practical significance.

The current study assessed employee perceptions using the Open Organisations Profile to explore how the three main categories of openness, (unity, internal responsiveness and external responsiveness) were related to customer satisfaction and sales performance. The current study thus attempted to confirm the work of Heskett et al. (1997) and Gelade and Young (2005) showing a positive relationship with favourable employee perceptions and customer satisfaction and financial performance.

A number of researchers (Gelade & Ivery, 2003; Gelade & Young, 2005; Schneider, Bowen, Ehrhart, & Holcombe, 2000; Wiley & Brookes, 2000) have found that revenue-based measures of organisational performance, for examples sales and profitability are significantly correlated with employees' work related perceptions. The evidence suggests that organisations in which employees' collective perceptions are relatively favourable perform better.

For example Ryan, Schmidt and Johnson (1996) demonstrated that average levels of job satisfaction, positive perceptions of teamwork and lower levels of stress in the branches of a finance company were associated with superior market share, reduced debt delinquency, and fewer credit losses. Similarly, Koys (2001) found that levels of employee satisfaction/commitment in the outlets of a restaurant chain were positively related to profitability. In the retail sector, perceptions of a strong service climate have been linked to enhanced store financial performance (Borucki & Burke, 1999) and positive job-related attitudes to increased sales (Leung, 1997) and to revenue growth (Rucci, Kirn, & Quinn, 2000).

In addition, George and Bettenhausen (1990) found links between the positive mood of store managers and sales volume. To date, the largest study of employee perceptions and organisational performance appears to be a meta analysis of 7,939 work units in 36 companies, conducted by Harter, Schmidt and Hayes (2002). Harter, Schmidt and Hayes (2002) found small but significant correlations between 'business unit productivity and profitability' and a composite of items they call 'employee engagement'. In another study Patterson, Warr and West (2004) reported significant associations between company climate and subsequent productivity in a sample of 42 manufacturing organisations. Job satisfaction was a mediator of this relationship.

These results from a variety of studies suggest that positive employee work experiences as reflected by elevated business unit and organisational scores on a variety of attitudinal and climate measures are associated with enhanced financial performance. However, the processes that link employees' specific experiences and attitudes to organisational performance remain to be clarified.

One plausible account of the link between the employee's work experience and financial performance holds that in the service sector, customer satisfaction is a critical intervening factor. The first to identify this factor and link it to positive employee experiences was Deming (1982). Heskett (1994) extended the conceptual model by asserting that satisfied and motivated employees produce satisfied customers and satisfied customers tend to purchase more (now known as the "Service-Profit Chain").

Heskett (1994) recommended the service profit chain as a "framework for constructing a strategic organisational vision and suggests that provided service chain concepts are carefully interpreted and adapted to an organisation's specific situation they are capable of delivering remarkable results" (p.8).

The contribution of the current study is to assess the Service-Profit Chain model using the three key categories of openness; unity, internal responsiveness and external responsiveness.

Method

Three private sector organisations participated in the study. The three organisations belong to the consumable goods industry and are all market leaders. Each organisation participated in the Open Organisations Archetype Study (Study 2) and provided customer satisfaction and sales performance data for this current study.

Participants

The sample comprised 629 participants; Organisation A (n = 80); Organisation B (n = 224); Organisation C (n = 325).

Materials

Participants completed the Open Organisations Profile between the months of June and October 2005. The Open Organisations Profile as explained earlier is a 90 item diagnostic comprised of nine subscales designed to measure openness.

The Open Organisations Profile required participants to rate on a 9-point scale (1 = Strongly Disagree to 9 = Strongly Agree) how they perceived the organisation in terms of the three high order factors of openness, unity, internal and external responsiveness across three levels of organisation, individuals, groups, and the overall organisation.

Procedure

Heskett, Sasser and Schlesinger (1997) proposed a model for measuring service profit that encompassed employees' perceptions of the organisation, sales performance and customer satisfaction. This model was followed in the current study. Participants in the current study were asked to complete the online version of the Open Organisations Profile; once the data was collected the three organisations involved provided the researcher with monthly and quarterly sales and customer satisfaction data. This sales performance and customer satisfaction data was collated using the following procedures.

Measure of Sales Achievement

Sales information was obtained for the financial quarter three and four in 2004 and financial quarters one and two in 2005. Reliability estimates for sales performance were derived by using a repeat measures method outlined by Schmidt and Hunter (1996). The repeat measures reliability coefficient was used as it takes into account the variation in sales performance over time. Using the Spearman-Brown prophecy formula the results

for sales performance presented in Table 9 show coefficients between .75 and .93. It may

be concluded that the reliability coefficients of the sales measures used in this study are

satisfactory.

Measure of Customer Satisfaction

All of the organisations involved in the study monitor customer satisfaction

closely and all employ external consultants to conduct a mix of quantitative customer

satisfaction surveys and qualitative focus groups towards the needs of existing customers.

As mentioned early all of these organisations are in the consumables industry and

therefore use extensive distribution networks to deliver their products to market. All of

the products are sold in to grocery chains and retail outlets and through factory sales. For

the purpose of this study the external customer is the consumer.

Although each of the organisations used different indexes, scales and dimensions,

across the three organisations five subscales of customer satisfaction were common; these

included brand recognition, packaging, taste, price and overall satisfaction. These five

scales have been assessed and used in the current study. Satisfactory levels of Cronbach

alpha reliability coefficients exist for the customer satisfaction measures across all three

participating organisations in the study. Because different customer satisfaction

instruments are used in each organisation, customer satisfaction scores are not

comparable across datasets.

The correlations reported below are based on Hedges and Olkin's (1985) fixed

effects procedure for averaging correlations. In this procedure the mean correlation across

the sample size (k) is calculated from the equation where the degrees of freedom (df_k) and

(z_k) are the Fisher-transformed correlations, for each sample. The mean correlation is

then the inverse Fisher transformation of Z, with standard error. Significance is assessed by dividing the mean correlation by its standard error to give a z-score whose significance is determined by reference to the normal distribution.

Table 9.

Sample Size, Response Rates and Performance Measure Coefficients

			Service-Profit Chain variables	
Organisation	$N=$	Response rate	Sales Achievement	Customer Satisfaction
		Private		
A	80	42%	.93	.82
B	224	28%	.78	.75
C	325	68%	.82	.85

For the purpose of this study customer satisfaction was identified as a mediating variable. The standard procedure for assessing mediation effects in organisational research is the Baron and Kenny's (1986) procedure and because this is familiar to most researchers this treatment has been adopted. This procedure requires the estimation of two regression equations. In the first equation the outcome variable (sales performance) is regressed on the initial variable (openness). In the second equation the outcome variable (sale performance) is regressed simultaneously on initial variable (openness) and the mediator variable (customer satisfaction). The mediation effect is defined as the reduction in the effect of the initial variable on the outcome when the mediator is included in the regression.

Mediation effects for customer satisfaction were calculated for each organisation separately and also in combination. Mackinnon, Lockwood, Hoffman, West and Sheets (2002) have shown that the Sobel test recommended by Baron and Kenny (1986) for testing the significance of the mediation effect has low statistical power. Therefore a bootstrapping procedure was used to determine the 95% confidence intervals around the mean mediation effect. A confidence interval that did not span zero indicated a statistically significant effect.

Results

Correlations

Table 10 contains the correlation matrix of the Open Organisations Profile, Customer Satisfaction and Sales Performance for the present sample across the three organisations.

Table 10.

Correlation Matrix for the Three Categories of Open Organisations, Customer Satisfaction and Sales Performance

	1	2	3	4	5	6
1. U	1.00					
2. IR	.93***	1.00				
3. ER	.92***	.95***	1.00			
4. OO	.82***	.73***	.82***	1.00		
5. SP	.32***	.42***	.32***	.35	1.00	
6. CS	.17***	.23***	.19***	.14	.18	1.00
M	5.42	6.21	4.76	5.65		
SD	2.65	2.12	2.73	2.08		

*** Significant p <.001; n=629

U = Unity; IR = Internal responsiveness; ER = External Responsiveness; OO = Overall Openness; SP = Sales Performance; CS = Customer Satisfaction; M = Mean Scores; SD = Standard Deviation.

Note: Descriptive statistics for sales performance and customer satisfaction excluded because of measurement differences.

These results show high levels of openness related directly to elevated levels of customer satisfaction and sales performance. The factor that showed the strongest correlation to sales performance was internal responsiveness (.42); and to customer satisfaction was also correlated with internal responsiveness (.23). Given the confirmed relationships the next steps explored whether a model could be built linking the Service-Profit Chain to the openness variables.

Structural Model

To explore the relationships between unity, internal responsiveness, external responsiveness and overall openness to the service profit chain, a modified structural model was built based on a combination of the organisational behaviour models proposed by Ostroff and Bowen (2000), Gelade and Young (2005) and Kopelman, Brief and Guzzo (1990). The present study adapted the framework to include unity, internal responsiveness and external responsiveness and overall openness into the structural model of the Service-Profit Chain. The hypotheses of the Service-Profit Chain show the links between the measures of customer satisfaction and sales performance and organisational performance. Stated simply, the service profit chain asserts that satisfied and motivated employees produce satisfied customers, and satisfied customers tend to purchase more, increasing revenue, profits, and outcomes of the organisation.

Gelade and Young (2005) utilised the variable of customer satisfaction as a mediating factor in the relationship between organisational commitment and customer satisfaction. However, in the current study the variable of customer satisfaction was used as a mediator between the relationship of overall openness and customer satisfaction and sales performance. The proposed structural model is presented in Figure 3 below.
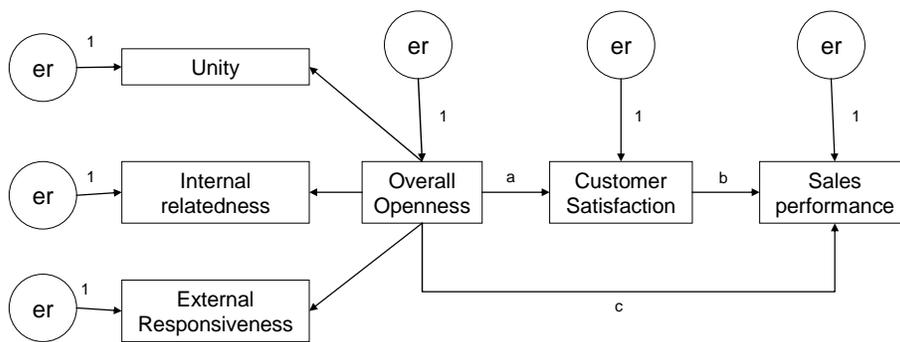

Figure 3.

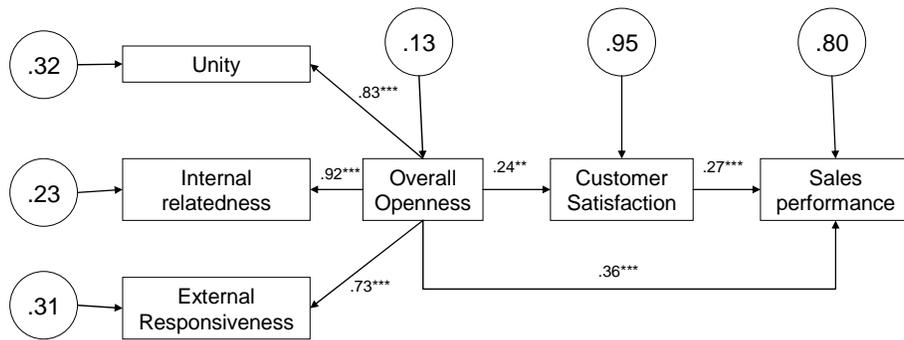Structural Model of Service Profit Chain

Following the usual conventions observed variables are depicted as rectangles, paths a, b, and c represent the service profit chain paths that are the primary focus of this study. To ensure the model was identified the path coefficients for the error variance components were set to 1.

Three different models were estimated using the maximum likelihood estimation procedure of the AMOS modelling program in SPSS version 13. Model 1 was a multi-group model in which each group was a different organisation. In a multi-group model the model parameters are allowed to be different for each group, but only one overall set

of fit measures is produced (Anderson & Gerbing, 1988). Differences in the path coefficients for each organisation indicate the extent of between-group variation. To estimate a multi-group model, observations are needed on each variable for each organisation. Model 1 consisted of all variables unconstrained. Model 2 was the same as Model 1 except that corresponding service profit chain paths were constrained to equality across the three organisations. Thus path a, b and c were constrained to ensure the model was tested using the same assumptions across organisations A, B and C.

Comparing the fit measures of Model 1 and Model 2 allowed a formal test of the hypothesis that the service profit chain is invariant across the three organisations. Specifically, if the fits of the constrained and the unconstrained models were not significantly different it could be concluded that there were no significant differences amongst the service profit chains in the three organisations. Conversely, if the fit of the constrained model was significantly worse than the fit of the unconstrained model the null hypothesis of invariance across the organisations would not be supported.

Finally, model 3 was estimated using data from all three organisations combined into a single group. The larger sample size has the advantage of increased statistical power (Field, 2000; Tabachnick & Fidell, 2001). As discussed previously, the customer satisfaction and sales performance coefficients were not directly comparable across the organisations, so for Model 3 all the observed variables were standardised within the organisations before estimating the model parameters. Figure 4 shows the results for Model 3.

.32   Unity   .13   .95   .80

.83***

.92***   Overall Openness   .24**   Customer Satisfaction   .27***   Sales performance

.23   Internal relatedness

.31   External Responsiveness

.73***   .36***

**p<.05, ***p<..005 N = 629

Figure 4.

Structural Model of the Service Profit Chain with Standard Path Coefficient and Error

Variances

Parameter estimates and fit indices for all three models are reported in Table 11.

The fit indices for Model 1 indicate an excellent fit between the model and the observed

data. Inspection of the path coefficients in Model 1 shows a similar pattern of results in

each organisation. Furthermore, the path between openness and sales performance is

consistently stronger than the path between openness and customer satisfaction and the

path from customer satisfaction to sales performance is also consistently strong.

Comparison of χ^2 update in Table 11 reflects the correct formula for Models 1 and

2 shows that constraining the service profit chain paths to equality across the three

organisations produce a good fit. Model 2 is nested within Model 1. The significance of

this change in fit can be assessed by the difference in χ^2 of the two models ($\chi^2 = 1.39$; df

= 4). This change is not significant (p = .92 <.05) suggesting that the service profit chain

is invariant within the three organisations. Finally, the parameters of Model 3 are similar

to the paths produced in Models 1 and 2 between customer satisfaction and sales

performance and openness and sales performance. All of the coefficients in Model three

were statically significant.

Table 11.

Parameters and Fit Indicators for the Structural Model

		Standardised path coefficients				
		Model 1			Model 2	Model 3
		Org 1 (n = 80)	Org 2 (n = 224)	Org 3 (n = 325)		Orgs 1, 2, 3 (n = 629)
Model Parameters						
Openness	Unity	.84**	.92**	.87**		.83**
Openness	Internal responsiveness	.84**	.95**	.84**		.92**
Openness	External responsiveness	.77**	.70**	.81**		.73**
Openness	Customer Satisfaction	.24*	.18*	.27**	.24**	.24**
Customer Satisfaction	Sales Performance	.31**	.27**	.24**	.27*	.27**
Openness	Sales Performance	.34**	.40**	.32**	.36**	.36**
Fit Indicators						
χ^2		68.23**			66.84**	.58.73**
Df		22			28	6
CFI		.99			.99	.99
TLI		.97			.97	.98
RMSEA		.04			.03	.04
Model 1 – Model 2 χ^2 Change (df)					1.39 (4) ns	

CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root mean square error of approximation

*p<.05; **p<.005

Mediating Effects

The effect of customer satisfaction as a mediator of the sales performance may be inferred from the values of the path coefficients in Figure 3.

Table 12.

Hierarchical Regression Analysis for Effects of Openness and Customer Satisfaction on Sales Performance

	Sales performance
Model 1	
Openness	.27**
Customer Satisfaction	.05*
R^2	.07*
F	3.90*
Model 2	
Unity	.25**
Internal responsiveness	.39**
External responsiveness	-.10
ΔR^2	.15**
F	5.88**

* $p<.05$, **$p<.01$

The results relating to sales performance, customer satisfaction and openness were analysed and showed that Model 1 accounted for a non-significant amount of the variance for sales performance. However, Model 2 accounted for significantly more variance in sales performance which suggests that two of the three factors of openness are important for sales performance. The R^2 values indicate that taken together, openness and customer satisfaction account for about 15% of the variance in organisational sales

performance. Mediation effects are uniformly significant with internal responsiveness demonstrating the biggest effect on sales performance.

Discussion

Many previous studies of factors contributing to organisational performance have been restricted to examining results in a single business unit raising the possibility of bias due to organisational specific factors and limiting the extent to which study conclusions may be generalised. A strength of the current study was that three different organisations were sampled reducing the possibility that the results were biased by unique organisational factors. The correlations of the openness variable with customer satisfaction and sales performance as reported here are consistent with previous research at the organisational level of analysis.

The results provide support for the service profit chain theory, in that customer satisfaction was found to mediate the relationship between openness and sales performance. Furthermore, two of the three organisations studied showed significant effect sizes individually. This suggests that the service profit chain offers a practical way to explain the relationship between employee openness, customer satisfaction and sales performance. The fact that the service profit chain paths in the structural model were invariant across organisation reinforces this conclusion

The findings from the current study differed from those of Gelade and Young (2005) who found that Service-Profit Chain was invariant across their four sample groups but that the relationships with customer satisfaction and sales performance were not statistically significant. The key differences between the two studies include that the current study was based on the overall organisation, as opposed to the branch unit

approach of Gelade and Young (2005). The current study also looked at the relationship between openness and customer satisfaction and sales performance, whereas, the Gelade and Young (2005) study attempted to understand the relationship between commitment to the organisation, and customer satisfaction and sales performance. The construct of commitment is not clear, or has not been researched closely with respect to its major components in the work setting, meanings its usefulness in trying to determine its affect on customer satisfaction and sales performance.

The regression analysis indicated that internal responsiveness has a significant effect on sales performance. This finding supports the findings of study two, which found that internal responsiveness, especially interpersonal relationships that occur at the group level were considered the most significant factor in the Australian sample. This finding suggests effective sales performance might be established by focusing training, development and learning interventions inside the organisation, rather than externally responding to customers in a push to produce more sales. This finding needs to be explored further.

This study found that customer service significantly mediates the relationship between openness and sales performance, but with a small effect size. This finding should not be interpreted to mean that customer satisfaction is not important. Rather, that the customer satisfaction data have been mediated to ensure its comparability. The procedure recommended by Hedges and Olkin (1985) to standardise separate means to minimise effect bias may attenuate the significance of the customer satisfaction. Another issue to consider when interpreting these results is the relatively small sample size,

though building a larger sample that collect both sales and customer satisfaction data proved difficult.

The current study provides a platform for further research into the relationships between openness, customer satisfaction and sales performance. Other researchers already referred to (Albrecht, 1990; Heskett, Sasser, & Schlesinger, 1997; Schneider, Bowen, Ehrhart, & Holcombe, 2000; Wiley & Brookes, 2000) have investigated links between key performance variables but further research using the attributes of openness is needed. This is important organisational research as many organisations, both public and private are searching for "ways to do more with less" (Mink, 2005). If research into the lead indicators of organisational performance such as openness can contribute new knowledge across industries and both public and private sector organisations, the ability of leaders to increase the rate of improvement could be enhanced.

Further research into the effects of the categories of openness: unity, internal responsiveness and external responsiveness, on sales performance and customer satisfaction need to be conducted to determine the applicability to creating open organisations. Although the results of this study have shown significant effects, the strongest effect seem counter-intuitive; that building internal responsiveness (building self-awareness, interpersonal relationships and alignment of resources) has a bigger impact on sales performance than being externally responsive (responding to other, cooperating with others and contributing to others).

Furthermore, cross disciplinary research needs to be conducted to understand the impact of other recognised lead indicators of organisational performance and

effectiveness (such as revenue, ebert, human resource utilisation, vision, values and strategic alliances) have on organisational life.

The final chapter summarises and completes this thesis on the Open Organisations Model and the assessment instrument, the Open Organisations Profile.

Chapter 5

Conclusions, Limitations and Directions for Future Research

Overview

Often questionnaires used in management consultancy have not always been rigorously assessed to determine their psychometric properties. The Open Organisations Profile developed by Mink (1992) is one such questionnaire used in the United States and in Australia. Limited data has been available on the quality of the Open Organisations Profile, including its reliability, the relevance of its underlying theoretical categories of unity, internal responsiveness and external responsiveness, and its overall validity in the workplace.

This dissertation examined the reliability and factor structure of the Open Organisations Profile. In addition it examined the reliability and factor structure of the Open Organisations Profile, and relationships with the cultural variable of nationality. Finally, the dissertation examined the links between the three categories of openness (unity, internal responsiveness and external responsiveness) and customer satisfaction and sales performance. In this final chapter, some conclusions are drawn, limitations of the research are discussed, and recommendations for future research are made.

Conclusions

Reliability

Internal reliability is an important psychometric test characteristic that evaluates the extent to which items in a test are coherently measuring the variable(s) assessed.

Mink (1995) found that Cronbach alpha scores for the Open Organisations Profile showed high internal reliability coefficient. However, until this study no further psychometric analysis has been conducted on the Profile.

The results of this study revealed internal reliability coefficients which support the findings by Mink (1995). The reliabilities of the Open Organisations Profile subscales were varied, ranging from r = .95 for the Alignment subscale to r = .80 for the Cooperation with Other subscale. In general, the reliabilities of the Open Organisations Profile were somewhat lower than, but consistent with those reported by Mink (1992) and above the generally accepted criterion of .70 (Field, 2000; Tabachnick & Fidell, 2001). As such, it could be argued that the nine dimension scores for the Open Organisations Profile are reliably assessed by the existing measure, but the Cronbach alpha scores could be further assessed in future research. In summary, it is concluded that the internal reliability of the Open Organisations Profile is within highly acceptable psychometric limits.

Factor Structure

No previous research had been conducted to assess the factor structure of the Open Organisations Profile. Both exploratory and confirmatory factor analytic methodologies were employed in this thesis in order to assess the factor structure of the measures examined.

The findings of the factor analyses were generally consistent with the underlying theory of the Open Organisations Model, from which the Open Organisations Profile was drawn. These exploratory factor analytic results showed support for the three categories of unity, internal responsiveness and external responsiveness proposed in the theoretical

Open Organisations Model. The three factor model was further supported by the confirmatory factor analyses. According to the difference in chi square values of these models, the hypothesised oblique three-factor model was found to provide a statistically better fit with the present data than the three-factor orthogonal model (i.e. $\underline{X}^2$ (33) =2026.25 – 1838.56 = 187.69, $\underline{p}$<.01). As such, it could be argued that the oblique three factor model provided the best fit with the present data.

Cross-Cultural Impacts

The Open Organisations Profile has been used in both American and Australian organisations. However, no analyses of the similarities or differences have been undertaken. This was the first known cross cultural study of its kind and showed evidence to support considerable similarities, but also some specific differences between Australians and Americans on perceptions of overall openness and the three categories of unity, internal responsiveness and external responsiveness.

The data revealed that Australian and American samples displayed no significant difference on the three categories of openness; unity, internal responsiveness and external responsiveness. Furthermore, no significant differences were identified on the overall measure of openness.

Analysis of each of the nine dimensions of openness using t tests demonstrated that significant differences between Americans and Australians were present on the dimension of Basic Values and Beliefs, Interpersonal Relationships and Alignment. The data suggests that dimension one (Basic Values and Beliefs) and dimension five (Interpersonal Relationships) could be differential factors for Australians and Alignment could be a differential factor in American organisations, helping distinguish the two

national organisational cultures. The findings of this study could have some implication for change leaders trying to develop high performance cultures across both countries.

The data also presented a number of significant differences in gender emphases across both the American and Australia samples. Gender difference in Basic Values and Beliefs, Self-Awareness, Responsive to Others, Interpersonal Relationships and Alignment were reported.

Linking Openness to Customer Satisfaction and Sales Performance

It has been argued in the recent psychological literature that satisfied employees lead to increased customer satisfaction and sales performance improvement (Gelade & Ivery, 2004). However, limited empirical support is reported for linking the measures of employee opinion to customer satisfaction and sales performance. Openness as measured in the Open Organisations Profile may have a clearer relationship.

The current study, utilised the service profit chain model (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994), and measured openness as opposed to employee opinion. The results, as given in Chapter 5, showed strong support for the links between openness and customer satisfaction and sales performance.

The results provide support for customer satisfaction being a meditating factor in the relationship between openness and sales performance. The data supported the service profit chain model as a visual representation of the relationship between employee openness, customer satisfaction and sales performance. The fact that the service profit chain paths in the structural model were invariant across organisation reinforces this conclusion.

This dissertation focused on the measurement of openness through the diagnostic instrument the Open Organisations Profile. The psychometric properties of the three key categories that underpin openness: unity, internal responsiveness and external responsiveness were found to be high. Furthermore, the Open Organisations Profile's three categories were confirmed in both the American and Australian samples, each of large sample size (American n = 831, and Australian n = 1590), and the three were able to predict customer satisfaction and sales performance. Since the Open Organisations Model and in turn the Open Organisations Profile were built on Living Systems Theory, indirect support is given in these results also for Living Systems Theory.

This research study and its several projects have attempted to answer the question, does the Open Organisation Profile provide a valid and reliable measure of openness in both Australian and American Organisations?

The data collected in the three studies has answered this question generally positively. The findings suggest the three key categories of openness could have a positive effect on an organisations ability to increase its rate of performance improvement. Further, the more specific dimensions in the Open Organisation Profile were able to demonstrate specific similarities and differences in emphasis between the organisational cultures in Australia and America. Logical or explicable gender differences also were identified using the Open Organisations Profile.

Limitations

There are four key limitations across the three studies. The first limitation concerns the cross-sectional strategy used on the cultural differences. Causation cannot be inferred because of the cross-cultural nature of the data. For example, overall openness

showed no significant difference across American and Australian cultures. However, at the dimension level there are a number of significant differences at the cultural level. Therefore, the cross-cultural design was well-suited for testing the majority of the questions in the study. Nonetheless, future research might employ a longitudinal research design or experimental methods to better understand the direction of the relationship between the measures of openness across the two cultures.

The second limitation was the sample for the study that attempted to link openness to customer satisfaction and sales performance was relatively small, with only three organisations supplying data. This is a serious limitation as each organisation utilised a different method for reporting customer satisfaction and sales performance, therefore, normalising the data was time-consuming and could have reduced the effect size of the data.

The third limitation of these studies was the choice to focus on only espoused theories of openness (i.e. there was no behaviour measure to see if what was expressed in the survey actually occurred in the workplace). The focus on espoused openness was based on the notion that most people have expectations that individuals will express openness in regards to some issues, but hide their true feelings and opinions if they feel the people around them will not support their views (Argyris, 2000). However, a more complete picture of openness would require consideration of how individuals, groups and the overall organisation make decision, confront issues and generally do their day-to-day work.

A fourth feasible limitation of the three studies, concerns the method of administration of the Open Organisations Profile. All survey data was collected online

via a purpose built software application that allowed the participants to complete the profile anytime they wanted during a two week period. There were no safe guards in place to ensure that each participant would only complete the profile once.

A more optimal approach would be to assign participants a unique code that must be entered into a webpage before beginning the survey. The unique code would only be valid for the single use. Future research needs to consider the ethical issues of confidentiality while ensuring survey data is useful and valid.

A further feasible limitation to the online data collection approach is that those people without computer access are restricted from participating in the data collection process. This is an important point as many of the organisations involved in the data collection process have large service or manufacturing components that have limited or no access to computer during their working day. Future research need to accommodate the collection of paper-based surveys to ensure that all employees have an opportunity to participate in the data collection process.

Directions for Future Research

The construct of openness in organisations is still very much in its infancy in comparison to constructs such as personality and intelligence, and much more research is needed in order to substantiate the nature and boundaries of the construct. This thesis has focused on the quality and utility of the measurement of openness, including its three main categories: unity, internal responsiveness and external responsiveness.

The current thesis appears to have successfully assessed the underlying factor structure of the Open Organisations Profile using an American and Australian sample. Future research could investigate the factor structure of the Open Organisations Profile in

other Westernised samples and then move on to assess the model with Asian samples. If the utility of the Open Organisations Profile was assessed against the above mentioned cultures it could provide leaders with a diagnostic instrument that could be useful globally to assess the effectiveness of their business in each major trading region.

If research can demonstrate the Open Organisations Profile is psychometrically sound across a variety of Western, Asian and other cultures, then leaders of businesses in their culture can actively engage in organisational assessment of a potentially critical factor not currently used in audits: openness. The outcomes could lead to effectiveness in organisations.

Another key area of research would involve further studies in different contexts using the Open Organisations Profile in conjunction with the service profit chain model to evaluate its utility across industries. The current study focused on three organisations in the consumables industry. Additional studies could examine the impacts of openness, employee engagement and employee opinion on organisational performance, for which the research show produces inconsistent and impractical results (Schneider, Bowen, Ehrhart, & Holcombe, 2000; Wiley & Brookes, 2000).

The final recommendation for future research could involve a large scale action research study that uses the data collected from the Open Organisations Profile and intervenes back into the organisation. This would be a significant study as it would expose the gaps between what people espouse and what they actually do in their jobs to promote an open, adaptive organisation.

This thesis is effectively concluded. It has achieved it aims of assessing the Open Organisations Profile as a measure of openness in organisations. It has shown the profile

to be reliable and to have construct validity (via confirmatory factor analysis), to be able to identify similarities and differences across two management cultures, and to have predictive validity in relation to customer satisfaction and sales performance.

The Open Organisations Profile may be seen as a tool similar to other organisational audit tools, much as engagement surveys, but examining a somewhat different area. The results of the Open Organisations Profile should prove valuable in assessing organisations to grow and develop.

Another achievement of the current research project on the Open Organisations Profile has been to confirm indirectly the views of earlier researchers, including Mink himself, now deceased. Furthermore, indirect support for the view of other leading organisational theorists such as Schein (2004), Argyris (2004), Wheatley (1999) and Peters (2003), that openness and related attributes are important aspects of organisational effectiveness.

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Appendix A: The Open Organisations Profile

OPEN ORGANISATIONS PROFILE

Introduction

Welcome to the Open Organisation Survey. Please read the following instructions to assist you in completing the survey.

The purpose of the Open Organisations survey is to collect your opinions regarding how your organisation performs in 9 key areas relating to openness. The information you provide will enable areas for improvement to be identified so that you and your organisation can achieve the highest potential. The completed analysis of people's responses in these 9 key areas is regarded as a measure of organisational openness. Organisational openness is a critical factor for organisations to be sustainable into the future.

The Open Organisations survey is divided into three sections.

The first section captures data about you. This data will be collated along with other people's responses to produce overall data about your organisation. By only reporting collated data your confidentiality is assured. We also ask you to tell us where you belong in the organisational structure so that we can produce data that is meaningful for your work group. Once again confidentiality is maintained as only the combined work group members responses are shown in reports.

The second section requires written responses.

This section asks for your opinion on what the organisation and your workgroup do well and what the organisation and your workgroup could improve on. Please answer all the questions in this section.

The third section requires you to select a response on a 9 point scale.

This section consists of questions that require you to use a rating scale and select a number that corresponds to your rating for each question.

The survey should take between 10-12 minutes to complete. If you need to exit the survey a code will appear on the screen. You will need to reenter this code to continue where you left off in the survey.

Thank you for completing this survey.

Section 1

This data is not to identify you. It is necessary so that work groups and business units can develop action plans using their own data. Where your work group or business unit is small (i.e. less than 6 people) you will be combined with another work group (or groups) or business unit (or units) so that you cannot be identified.

Please circle the number that corresponds to your answer.

1. Which Reporting Group do you belong to? _____

2. Are you

    1   Male

    2   Female

3. How old are you?

1	less than 16 years	7	41 - 45 years
2	16 - 20 years	8	46 - 50 years
3	21 - 25 years	9	51 - 55 years
4	26 - 30 years	10	56 - 60 years
5	31 - 35 years	11	61 - 65 years
6	36 - 40 years	12	over 65 years

4. How long have you worked for ABC Organisation?

    1   less than 1 year

    2   1 - less than 2 years

    3   2 - less than 3 years

    4   3 - less than 5 years

    5   5 - less than10 years

    6   10 - less than 20 years

    7   more than 20 years

5. Are you

    1   Full Time

    2   Part Time

6. Is your role

    1   Manager

    2   Supervisor

    3   Other

Section 2

This section is to gather your opinion on what is being done well or areas that could be improved on.

7. List up to three things that your work group does well.

    a..

    b..

    c..

8. List up to three things that your work group could improve on.

    a..

    b..

    c..

9. List up to three things that ABC Organisation does well.

    a..

    b..

    c..

10. List up to three things that ABC Organisation could improve on.

    a..

    b..

    c..

Section 3

To complete the following questions, you will use the rating scale described below. To respond to each item, circle the number which best expresses the extent to which you agree or disagree with that item.
Note: If you have no information about an item or do not believe it is relevant to you, please respond **Do Not Know** to that item.
Example:

0 1 2 3 4 5 6 7 8 9   1. The attitude around this organisation is very positive.

0	1	2	3	4	5	6	7	8	9
Do Not Know	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree

Dimension 1: Basic Values and Beliefs

0 1 2 3 4 5 6 7 8 9   11. I am treated fairly by the organisation.

0 1 2 3 4 5 6 7 8 9   12. I feel there is purpose and meaning in my work

0 1 2 3 4 5 6 7 8 9   13. This organisation meets my needs (compensation, security, achievement, growth, etc.)

0 1 2 3 4 5 6 7 8 9   14. I believe the organisation maintains an environment of honesty.

0 1 2 3 4 5 6 7 8 9   15. This organisation encourages me to be myself.

0 1 2 3 4 5 6 7 8 9   16. I feel valued and respected.

0 1 2 3 4 5 6 7 8 9   17. The things that are important to this organisation are important to me

0 1 2 3 4 5 6 7 8 9   18. I am able to act in a way that is consistent with my values.

0 1 2 3 4 5 6 7 8 9   19. I understand what I need to do to contribute to the purposes of the organisation.

0 1 2 3 4 5 6 7 8 9   20. I believe my work contributes to the organisation's ultimate purposes

Dimension 2: Self-Awareness

0 1 2 3 4 5 6 7 8 9   21.   I am aware of how I feel (sad, scared, joyful, etc.) and feel free to act in a manner consistent with those feelings.

0 1 2 3 4 5 6 7 8 9   22.   My complaints are heard, accepted, and responded to.

0 1 2 3 4 5 6 7 8 9   23.   I can take actions in order to satisfy my own needs.

0 1 2 3 4 5 6 7 8 9   24.   I can express my feelings without fear of punishment from people in the organisation.

0 1 2 3 4 5 6 7 8 9   25.   The organisation tries to respond effectively to the needs of its employees.

0 1 2 3 4 5 6 7 8 9   26.   Fostering good human relations among the employees is a high priority here.

0 1 2 3 4 5 6 7 8 9   27.   There is openness in this organisation in dealing with work- related problems.

0 1 2 3 4 5 6 7 8 9   28.   Employees here are encouraged to express their opinions, even when such opinions differ from those of other people.

0 1 2 3 4 5 6 7 8 9   29.   Management keeps track of how well things are going in the organisation.

0 1 2 3 4 5 6 7 8 9   30.   Supervisors seek feedback from their employees, even when it may be negative.

Dimension 3: Responding to Others

0 1 2 3 4 5 6 7 8 9   31. Employees here seek out other points of view and try to understand them.

0 1 2 3 4 5 6 7 8 9   32. Individuals' skills and talents are recognised and appreciated by their co-workers.

0 1 2 3 4 5 6 7 8 9   33. Feedback from the organisations management is fair and unbiased.

0 1 2 3 4 5 6 7 8 9   34. Conflicts between individuals are generally dealt with openly and effectively.

0 1 2 3 4 5 6 7 8 9   35. The people I work with try to help one another to be successful.

0 1 2 3 4 5 6 7 8 9   36. Employees have a genuine interest in one another's welfare.

0 1 2 3 4 5 6 7 8 9   37. Co-workers are willing to talk with each other about their work.

0 1 2 3 4 5 6 7 8 9   38. People here are willing to help one another whenever possible.

0 1 2 3 4 5 6 7 8 9   39. Feedback between people is face-to-face, instead of behind people's backs.

0 1 2 3 4 5 6 7 8 9   40. Employees here generally treat their co-workers with respect.

Dimension 4: Shared Purpose

0 1 2 3 4 5 6 7 8 9   41. In my work group all of the members are involved in making decisions that are important to the group.

0 1 2 3 4 5 6 7 8 9   42. My work group's goals and objectives are understood by all of its members.

0 1 2 3 4 5 6 7 8 9   43. Group members are committed to the goals and objectives of the group.

0 1 2 3 4 5 6 7 8 9   44. Members of my group share common goals, objectives, and values and always try to achieve them.

0 1 2 3 4 5 6 7 8 9   45. Problems in my team are clearly defined and quickly brought out into the open.

0 1 2 3 4 5 6 7 8 9   46. Team members share ideas and communicate with one another when setting goals and when planning.

0 1 2 3 4 5 6 7 8 9   47. Team members in my group respect one another's ideas.

0 1 2 3 4 5 6 7 8 9   48. The work group encourages teamwork and fair competition in working toward shared goals.

0 1 2 3 4 5 6 7 8 9   49. Members have a strong sense of belonging and loyalty in this group.

0 1 2 3 4 5 6 7 8 9   50. When confronted with problems, team members ask for suggestions from other team members.

Dimension 5: Interpersonal Relationships

0 1 2 3 4 5 6 7 8 9   51.   The members of my work group enjoy working with one another.

0 1 2 3 4 5 6 7 8 9   52.   Members of my work group communicate well with one another.

0 1 2 3 4 5 6 7 8 9   53.   It is O.K. in my work group for individuals to talk about their feelings about work.

0 1 2 3 4 5 6 7 8 9   54.   The members of my work group know how to listen to each other.

0 1 2 3 4 5 6 7 8 9   55.   Members of my work group are interested in each others' concerns and problems

0 1 2 3 4 5 6 7 8 9   56.   Members of my work group are effective in solving problems as a group/team.

0 1 2 3 4 5 6 7 8 9   57.   In my group, we have a high level of trust for each other

0 1 2 3 4 5 6 7 8 9   58.   Conflicts between individuals are resolved quickly and effectively.

0 1 2 3 4 5 6 7 8 9   59.   Relationships between individual members in my work group are mostly positive.

0 1 2 3 4 5 6 7 8 9   60.   Team members are sensitive to how their actions affect others.

Dimension 6: Cooperation with Others

0 1 2 3 4 5 6 7 8 9   61.   Managers encourage groups to work with one another.

0 1 2 3 4 5 6 7 8 9   62.   Cooperation is more highly valued than cut-throat competition among groups in this organisation.

0 1 2 3 4 5 6 7 8 9   63.   Cooperation among groups takes place readily and is not strained.

0 1 2 3 4 5 6 7 8 9   64.   When different groups work together on a shared project, they stress flexibility rather than structure.

0 1 2 3 4 5 6 7 8 9   65.   Upper management involves work groups at different levels in reaching decisions.

0 1 2 3 4 5 6 7 8 9   66.   Teams work together to establishing goals and priorities.

0 1 2 3 4 5 6 7 8 9   67.   The organisation encourages informal communication among different teams.

0 1 2 3 4 5 6 7 8 9   68.   Healthy relationships are generally maintained among various work groups.

0 1 2 3 4 5 6 7 8 9   69.   Other teams share information with my work group when it is needed.

0 1 2 3 4 5 6 7 8 9   70.   Information is adequately exchanged among different teams or groups to achieve high quality decisions.

Dimension 7: Shared Vision

0 1 2 3 4 5 6 7 8 9   71.   Management in the organisation is easy to approach.

0 1 2 3 4 5 6 7 8 9   72.   Decisions are made at those levels where the best
                              information is available.

0 1 2 3 4 5 6 7 8 9   73.   Decisions are made after information is obtained from those
                              who actually do the jobs.

0 1 2 3 4 5 6 7 8 9   74.   Decision-making is directed towards achieving the
                              organisation's goals and objectives.

0 1 2 3 4 5 6 7 8 9   75.   The organisation involves employees at different levels in
                              decision making processes.

0 1 2 3 4 5 6 7 8 9   76.   Management in this organisation is more concerned with
                              getting things done than controlling the staff.

0 1 2 3 4 5 6 7 8 9   77.   There is an honest commitment to involving people in
                              making decisions.

0 1 2 3 4 5 6 7 8 9   78.   Decisions are not made until input is received from those
                              whom the decision affects.

0 1 2 3 4 5 6 7 8 9   79.   When confronted with problems, the organisation asks for
                              suggestions from its members

0 1 2 3 4 5 6 7 8 9   80.   There is an open forum for discussing organisational goals
                              and priorities.

Dimension 8: Alignment

0 1 2 3 4 5 6 7 8 9   8.1 Important information is freely exchanged throughout the organisation.

0 1 2 3 4 5 6 7 8 9   82. Changes in organisation's policy or procedures are effectively communicated to the people affected.

0 1 2 3 4 5 6 7 8 9   83. The organisation communicates that it genuinely cares for its employees.

0 1 2 3 4 5 6 7 8 9   84. Crises are handled openly rather than behind the scenes.

0 1 2 3 4 5 6 7 8 9   85. New directions or initiatives in the organisation are communicated .to employees.

0 1 2 3 4 5 6 7 8 9   86. People are valued more than things in this organisation.

0 1 2 3 4 5 6 7 8 9   87. The organisation asks for new ideas from all levels.

0 1 2 3 4 5 6 7 8 9   88. Unusual behaviour is tolerated with reasonable limits.

0 1 2 3 4 5 6 7 8 9   89. A high degree of trust is common among members of the organisation.

0 1 2 3 4 5 6 7 8 9   90. The organisation structure, policies, and procedures are effectively communicated to new employees

Dimension 9: Contributing to Others

0 1 2 3 4 5 6 7 8 9   91. This organisation encourages innovation and experimentation in order to cope with changes in the environment.

0 1 2 3 4 5 6 7 8 9   92. Task forces (or other such work groups) are regularly appointed to help the organisation understand new situations or problems.

0 1 2 3 4 5 6 7 8 9   93. Organisational structures, policies, and procedures are modified in response to changes inside and outside the organisation.

0 1 2 3 4 5 6 7 8 9   94. The organisation demonstrates responsibility for its impact on the community and the environment.

0 1 2 3 4 5 6 7 8 9   95. The organisation responds swiftly to opportunities

0 1 2 3 4 5 6 7 8 9   96. The organisation regularly and systematically seeks new information to improve its products and services.

0 1 2 3 4 5 6 7 8 9   97. Once a commitment is made to a new way of doing things, the organisation provides enough energy and resources to support it.

0 1 2 3 4 5 6 7 8 9   98. The organisation adapts to changing situations, rather than functioning in a mechanical or robot-like way.

0 1 2 3 4 5 6 7 8 9   99. The organisation demonstrates a real interest in the needs of its customers and clients.

0 1 2 3 4 5 6 7 8 9   100. The organisation supports the community by providing help where needed

Appendix B: Explanatory Statement

Assessing Openness in Australian Organisations

Project Title: Assessing Openness in Australian Organisations
Project Number: R0440

My name is Lee Stubbs and I am completing a Doctorate of Psychology at Bond University under the supervision of Professor Richard Hicks (Head of Psychology Department).

The aim of this research is to understand how organisations are developing and utilising the people resources within their organisations. My focus is on organisational intelligence and how people in organisations are given the ability to perform to their highest level.

I am seeking people from your organisation to participate in PhD research project to assess how we can develop and maintain the organisational intelligence in your organisation. I require you to complete an initial diagnostic survey called the Open Organisation Profile (OOP). The survey is designed to understand your perceptions, feelings and experiences towards your organisation's ability to interact intelligently with you, your customers and the outside business world. This diagnostics will then be conducted again in 1 year.

It is expected that you will complete the survey within work time and send the completed survey to Lee Stubbs at the email address below.

No findings which could identify you or any other participant will be published. The anonymity of your participation is assured by our procedure, in which the surveys are anonymous and only the combined results of all participants will be published.

It is important to note that your participation is voluntary; you are free to withdraw from the study at anytime and for any reason. If you have any comments or enquiries into the study please contact Lee Stubbs or Professor Richard Hicks.

Should you have any complaint concerning the manner in which this research is conducted, please do not hesitate to contact Bond University Research Ethics Committee at the following address:

Jodie Maguire
The Complaints Officer
Bond University Human Research Ethics Committee
Bond University
Gold Coast, 4229.
Telephone (07) 5595 4001 Fax (07) 5595 1747
Email Jodie Maguire jodie_maguire@bond.edu.au

I look forward to joining you and your organisation in the search to create and maintain healthy, productive and responsive systems that allow and encourage learning as well as personal and professional development.

Lee Stubbs

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