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**A QUALITATIVE INVESTIGATION INTO THE
FORMATION OF SELF-EFFICACY BELIEFS OF
SKILLED PROFESSIONAL EMPLOYEES IN A SOUTH
AFRICAN FRUIT EXPORT ORGANISATION**

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**A minor dissertation submitted in partial fulfilment for the award of
Masters Degree in Organisational Psychology,**

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This work has not been previously submitted in whole or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

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Abstract

This research explores the formation of self-efficacy beliefs from the perspective of individual employees occupying formal work roles within the supply chain division of an international fruit-marketing organisation. Albert Bandura's (1977; 1986; 1997) Social Cognitive Theory and research contributions on the formation of self-efficacy beliefs define the context in which this research is located. Qualitative data was obtained through in-depth interviews with fifteen subjects with more than two years work experience. Results indicate that employees derive efficacy information primarily through performance accomplishments, persuasive feedback from significant others and social comparative information. Specifically successful performance experiences appear to enhance perceptions of self-efficacy more than informat derived from any other source.

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Beliefs that people hold about their capabilities powerfully influences the way they behave and the performance results they achieve (Bandura, 1997). Previous performance accomplishments or the skills that people possess are not necessarily good predictors of future performance, because self-perceptions of capability help determine what individuals do with the skills and knowledge they have (Maehr & Pintrich, 2000). Numerous studies have reported a significant relationship between self-efficacy and work-related performance (Bandura, 1997). Research has demonstrated that self-efficacy beliefs affect performance attainments by influencing effort, persistence and perseverance in task attainment (Cervone, 2000; Pajares, 2000).

Information derived from different sources in the environment influence the formation of self-efficacy judgements (Bandura, 1997). This research investigates the formation of self-efficacy beliefs within a work context. In particular the information referents or sources that impact the formation of an employee's self-efficacy beliefs were explored. A number of factors can influence the efficacy indicators that people will attend to (Bandura, 1997; Cervone, 2000; Early & Gibson, 1999; Stadjkovic & Luthans, 1998), and as such attention is also given to the identification of organisational factors that influence the choice of information referents.

The research adopts a qualitative investigation into the formation of self-efficacy beliefs in order to surface the dynamic process underlying the formation of efficacy judgements from the perspective of individual employees operating in a formal work context. Emphasis is placed on gaining insight into this phenomenon from the individual's personal experiences. The qualitative approach of the study provides insight into the complexities influencing the choice of information referents in the formation of efficacy beliefs.

The research sample was drawn from the supply chain division of an international fruit exporter and consists of skilled, professional (graduates or diplomats) employees with more than two (2) years work experience. The research setting is the workplace of the individuals in the sample.

This document is structured into five chapters. *Chapter One* provides a review of the literature and research that is relevant to the self-efficacy construct within the realm of organisational psychology. Albert Bandura pioneered the research in this area and as such there is heavy reliance on Bandura's research literature. Literature dealing with the application of this construct within a clinical context has not been included in the review. In particular this chapter explores the four information sources identified by Bandura (1977) namely: enactive mastery experiences, vicarious experiences, verbal persuasion, and psychological arousal.

Chapter Two details the qualitative research methodology employed in the current research, including the method of data collection, data analysis and interpretation procedures. *Chapter Three* presents the results obtained in the research, while *Chapter Four* provides an analysis, interpretation and discussion of the findings within the theoretical framework and acknowledged research.

Finally *Chapter five* offers recommendations to work organisations as to the strategies that can be employed to facilitate the formation and enhancement of self-efficacy beliefs. It is hoped that these recommendations will enable an organisation to raise the level of employee productivity by addressing the development of a core distinguishing characteristic between a high performer and an average performer, namely their beliefs of personal efficacy.

CHAPTER ONE-LITERATURE REVIEW

This chapter reviews the literature and research outcomes relevant to the current research. The research construct, self-efficacy, was first introduced by Bandura (1977). Bandura (1986; 1997) himself has tabled a vast body of the research on the different aspects of the self-efficacy construct applied in varied disciplines and settings. The majority of the earlier research explores its application in clinical, educational and academic contexts. The application of the construct in motivation research started receiving attention in the late 1980's and a body of research focussing on the link between self-efficacy and other motivational constructs became prominent in this decade. Research on the application of self-efficacy in organisational contexts is limited and is starting to receive increasingly more attention (Appelbaum, 1996; Brief & Aldag, 2001; Harrison & Rainer, 1997). Albert Bandura is a key protagonist of the self-efficacy construct and as such the literature review relies heavily on Bandura's (1986; 1988; 1989; 1994; 1997; 1999) research findings, particularly with regard to the nature of the construct, the sources of self-efficacy beliefs and the self-efficacy performance link.

The literature review is structured around the characteristics of the self-efficacy construct, its relation to motivational constructs and the information sources of efficacy beliefs. Section 1.1 provides an overview of the theoretical framework in which the construct is situated, namely, Social Cognitive Theory. Section 1.2 details the definition, dimensions and measurement of self-efficacy. Section 1.3 reviews the relation of self-efficacy to similar motivational constructs, namely, self-esteem, outcome expectancies and locus of control. Section 1.4 addresses the four sources of self-efficacy information, namely: enactive mastery experiences, vicarious experiences, verbal persuasion and psychological arousal. Sections 1.5 and 1.6 review the impact of self-efficacy on psychological functioning and the implications of self-efficacy for organisational behaviour. The last section (1.7) offers a summary of the chapter.

1.1 OVERVIEW OF THEORETICAL FRAMEWORK

This section reviews the theoretical framework of the self-efficacy construct and the underlying influences of human behaviour.

The self-efficacy construct is derived from Social Cognitive Theory, which is based on Social Learning Theory and Behaviourism (Bandura, 1977). Social Cognitive Theory explains organisational behaviour in terms of a triadic reciprocal causation between cognitions, behaviour and the environment (Bandura, 1977). The influences of these different sources are not necessarily of equal strength, nor do the reciprocal influences occur simultaneously (Wood & Bandura, 1989). The social aspect of this theoretical framework acknowledges that a lot of human thought and action is socially constructed, however the cognitive aspect recognises and emphasizes the influential contribution of thought processes in human action (Stadjkovic & Luthans, 1998). In the Social Cognitive Framework, beliefs of personal efficacy form the basis of action and human behaviour (Bandura, 1997). Human beings do not simply respond to environmental stimuli, through cognitive processes, they exercise self-influence on the courses of action to take (Bandura, 1997).

Many theories attempting to explain human behaviour in organisational settings attempt to understand human behaviour from a dualistic perspective in terms of either socio-structural factors or psychological factors as opposed to an integrated causal perspective (Bandura, 1997). Stadjkovic and Luthans (1998) pointed out that other widely recognised cognitively based motivation theories often fail to specify a process-oriented analysis of the factors influencing the relationship between human action and environmental outcomes, and the underlying mechanisms that can affect the strength of proposed relationships. Social Cognitive Theory advocates that human behaviour cannot be understood fully solely in terms of sociostructural or psychological factors; and that full understanding requires an integrated causal perspective in which social influences operate through various self-processes that produce actions or behavioural effects (Bandura, 1999).

The self, although socially constituted, is not merely a conduit for external influences; it operates both generatively and proactively on social systems, not just reactively (Bandura, 1999). Cognitive factors partly determine the influence of environmental factors, the meaning that is conferred on them, the effect they have on an individual, the impact and motivating power they have and how the information conveyed in an event will be organised for future use (Bandura, 1999).

In the Social Learning view, human motivation and behaviour is regulated through the anticipative mechanism of forethought, that is, by outcomes expected for given courses of action (Bandura, 1999). Environmental cues and the anticipatory capacities of people are key determinants of human actions on motivation and attitudes (Bandura, 1977). The anticipatory capacities of people enable them to predict probable consequences of different events and courses of actions and regulate their behaviour on the basis of these predictive antecedent events (Bandura, 1977).

The Social Learning view makes the distinction between outcome expectancies and efficacy expectations (Bandura, 1977). Outcome expectancies are defined as “a person’s estimate that a given behaviour will lead to certain outcomes”, while efficacy expectations are defined as the “conviction that one can successfully execute the desired behaviour required to produce the outcomes”(Bandura, 1977, p. 79).

Social Cognitive Theory suggests that human behaviour can be predicted not only on the basis of contingent consequences, but also on the basis of self-efficacy (Bandura, 1977). The theoretical approach therefore does not negate the importance of the behaviourist assumption of a functional link between behaviour and consequences, but proposes a causal and triadic relationship between human behaviour, the environment and interpersonal factors (Stadjkovic & Luthans, 1998). Other cognitively based motivation theories pose a functional relation between human action and environmental outcomes and fail to specify the underlying mechanisms that can effect the strength of the relationships and factors influencing human behaviour. The next section details the definition and facets of the self-efficacy construct.

1.2 DEFINITION, CHARACTERISTICS & MEASUREMENT OF SELF- EFFICACY

This section reviews the various definitions of the self-efficacy construct, the three dimensions of self-efficacy and the measurement of the construct.

1.2.1 Defining the Self-Efficacy Construct

Bandura (1977) first introduced the self-efficacy construct in his seminal publication entitled: "Self-efficacy: Toward a Unifying Theory of Behavioural Change". A decade later Bandura (1986) situated the construct within a Social Cognitive Theory of human behaviour and embedded cognitive development within a sociostructural network of influences (Pajares, 2000).

Bandura (1986) first defined self-efficacy as a judgement of personal capabilities to organise and execute courses of action required to achieve designated types of performances. Wood and Bandura (1989, p.408) expanded the definition by adding that self-efficacy "refers to the beliefs in one's capabilities to mobilise the motivation, cognitive resources, and courses of action needed to meet situational demands". Bandura's (1991), later definition of the self-efficacy construct emphasized perceived control as a pivotal facet of the construct, defining it as beliefs about one's capabilities to exercise control over one's own level of functioning and other events that affect one's life. Bandura's (1997, p.3) more recent definition highlighted perceived competence as the pivotal facet of the construct defining self-efficacy as the "belief in one's capabilities to organise and execute the courses of action required to produce given attainments".

Research conducted by Gist and Mitchell (1992) noted the motivational and integrative aspects of efficacy judgements. These researchers identified three aspects of the self-efficacy definition. Firstly, the *comprehensive judgement of capability* in that information is derived from the individual, the specific work task and others in the organisational environment and may contribute to an individual's comprehensive assessment of their capability. Secondly, self-efficacy is a *dynamic construct* that changes over time as new information and experiences are acquired. Thirdly, self-efficacy beliefs involve a more *complex and generative process* or mobilisation component in that people who possess the same skills may perform differently based on their utilisation, combination and

sequencing of their skills in a particular work context. It is important that self-efficacy should not be conceptualised as an abstract dispositional tendency but as the product of dynamic cognitive processes (Cervone, 2000).

Bandura's (1977) initial research of the self-efficacy construct anchored the concept in a cognitive process that constructs beliefs about capacity to perform. Research by other theorists in this domain expanded on the cognitive process in the formation of self-efficacy beliefs (Gist, 1987; Pajares, 2000). Gist (1981) proposes that self-efficacy is the outcome of a process of weighing, integrating and evaluating information about one's capabilities. Pajares (2000) argues that the process of creating and using self-efficacy beliefs is an intuitive one. Efficacy beliefs are created through a cognitive process of perception, reflection and evaluation: individuals engage in a task, interpret the results of their actions, use these interpretations to create and develop beliefs about their own capability, then engage in subsequent behaviour in similar domains and act in accordance with the beliefs created (Pajares, 2000)

These self-efficacy beliefs provide a filter through which performance accomplishments and other personal experiences are interpreted, and the application of these cognitive interpretations in future situations subsequently mediates future behaviour (Pajares, 2000). Later research by Bandura (1997) suggests that a strong sense of self-efficacy is necessary to deploy one's cognitive resources optimally and that self-regulatory influences have considerable impact on how well cognitive processing works.

Cervone's (2000) research distinguishes between perceived self-efficacy for goals and perceived self-efficacy for strategies: goals are the overall aim of a course of action, while strategies refer to one's tactics for achieving a goal. Cervone (2000) advocates that when individuals' make judgements about their efficacy in any domain, they may focus on either the attainment of overall goals or the execution of specific strategies. In more recent research the mediating influence of goal setting and self-evaluation reactions in influencing self-efficacy expectations has been highlighted: individuals internalise performance goals, evaluate their behaviour against these personal standards, and then attribute the attained level of performance to themselves and to environmental influences (Brief & Aldag, 2001).

Bandura's (1997) more recent research of the self-efficacy construct provides evidence that perceived collective efficacy exists as a group process and is related to group performance. Collective efficacy centres on a group's operative capabilities to organise and execute collective action required to attain a given level of group performance (Bandura, 1997). Beliefs that both individuals and groups of people hold about their capabilities powerfully influence the way they behave and the performance results they will achieve.

The concept of self-efficacy was initially applied in a clinical context to the study and treatment of people with behavioural disorders such as agoraphobia and has since emerged in the organisational psychology context in the relationship between work-related self-efficacy expectancies and work-related behaviour. The next section will deal with the dimensions of self-efficacy.

1.2. 2 Dimensions of Self-Efficacy

Self-efficacy varies along three dimensions, namely: level (the number of tasks a person can do or the expected performance attainments); strength (the certainty or conviction an individual has in his/her ability to successfully perform each task); and generality (the extent to which self-efficacy expectations can be generalised from one situation to the next (Sadri, 1996; Wiegand & Stockholm, 2000).

Generally self-efficacy is regarded as a situation-specific concept, however Bandura (1997) advocates that self-efficacy can also range from specific self-efficacy to generalised self-efficacy. Specific self-efficacy is a state-based expectation, in other words it is a judgement immediately before any effort is expended on a task, and reflects an employee's momentary belief in his/her capability to perform a specific task at a specific time (Gardner & Pierce, 1998).

Research conducted by Gardner and Pierce (1998) support Bandura's (1997) notion regarding generalised self-efficacy, and further identified two factors that are likely to lead to high generalised self-efficacy, namely, repeated success at a specific task and the accumulation of successful experiences across a wide variety of tasks. Although

Bandura (1997) recognises that perceptions of self-efficacy may generalise across situations, there is a lack of empirical research dealing with the questions of how and why self-efficacy appraisals generalise across various contexts (Cervone, 2000).

1.2.3 Measurement of Self-Efficacy

Bandura (1986) proposes that the measurement of self-efficacy cognitions should be carried out in microanalytical fashion, by assessing specific task-based self-efficacy along three dimensions, namely, level of expected performance strength, which concerns the certainty with which individuals expect to successfully attain the task and generality, which refers to the number of domains in which individuals feel they are self-efficacious.

Bandura's (1986) concept of generality suggests that a high level of self-efficacy in one domain does not necessarily result in a high level of self-efficacy in another domain. This is based on the view that self-efficacy is not a generalised personality trait, but rather a context-specific judgement. A scale designed to measure self-efficacy must reference task abilities that are specific to the situation. Bandura (1986) also suggests that the most refined test of self-efficacy's contribution to behaviour would involve close monitoring of changes in perceived self-efficacy as external influences are applied; this test would therefore involve the systematic variation of self-efficacy, the findings of which could then address causality.

1.3 RELATION TO MOTIVATIONAL CONCEPTS

The conceptual differentiation between self-efficacy and other similar constructs is important in understanding the distinctiveness of self-efficacy. This section reviews the distinction and relation between self-efficacy and self-esteem, self-efficacy and outcome expectancies and self-efficacy and locus of control.

1.3.1 Self-Efficacy and Self-Esteem

Self-efficacy is most frequently confused with self-esteem (Gist & Mitchell, 1992). Self-esteem is considered to be a trait reflecting an individual's feelings of self-worth or self-liking, while self-efficacy is a judgement about task capability that is not inherently self-

evaluative (Gist & Mitchell, 1992). An important distinction between the two constructs is that while self-esteem can be global in nature (i.e. evaluation of the total self) and specific (i.e. situational or task-specific self-esteem), self-efficacy by contrast always refers to task-specific capability (Gist & Mitchell, 1992).

Gardner & Pierce (1998) propose that self-esteem and self-efficacy, although distinct conceptually, are also related both theoretically and empirically. They argue that it is reasonable to assume that individuals who have come to perceive themselves as highly capable, significant and worthy will also perceive themselves to be more capable of achieving task success.

The two concepts are similar in that both range from general to specific, both appear to reflect state and trait properties and both contain multiple dimensions (Gardner & Pierce, 1998). Gardner & Pierce, (1998) believe that the two concepts differ in terms of their *time perspectives* (current assessment of one's self vs. a future assessment of one's performance level), their *perceptual targets* (the self vs. the self-vis-à-vis some task), and the degree to which they are a *belief versus an evaluation*.

1.3.2 Self-Efficacy and Outcome Expectancies

Self-efficacy has also been likened to Vroom's Expectancy Theory (1964, as cited in Gist & Mitchell, 1992) in that both self-efficacy and Expectancy Theory concepts involve forethought and depend on the type of behaviours an individual chooses to execute. Self-efficacy differs conceptually from Expectancy Theory constructs in having generative capability, that is, it also influences thought patterns and emotional reactions, and encompasses a broader range of predictors of a performance level for a specific task (Gist & Mitchell, 1992). While self-efficacy assesses expectations for a wide range of performance levels, expectancy measures assess effort-performance expectancy for one assigned performance goal (Gist, 1987).

Bandura (1977) has also drawn a distinction between the roles of self-efficacy beliefs versus outcome expectations in influencing motivation and predicting behaviour or performance: self-efficacy beliefs reflect judgements of personal competence, whereas outcome expectations reflect judgements of the likely consequence that the behaviour

will produce. Brief and Aldag (2001) support Bandura's (1977) contention, arguing that self-efficacy expectations differ from outcome expectations in that it involves the conviction that one can successfully execute the behaviour required to produce the expected environmental consequence.

Other theorists propose a closer empirical relationship between the two constructs, for example, Pajares (2000) postulates that efficacy judgements are themselves dependant on outcome expectations, while Eastman and Marzillier (1984) believe that individuals can infer their efficacy beliefs from imagined outcomes, and as such an individual's perception of an outcome and their view of the task necessary to achieve a particular outcome can regulate their behaviour as powerfully as their belief of their own efficacy. Eastman and Marzillier (1984) go so far as to say that outcome expectations can operate independently of self-efficacy beliefs. Bandura (1984) countered their view arguing that an individual cannot conjure up outcomes without giving thought to the task at hand and evaluating how the task is being performed. Later research (Bandura, 1997, p.3) promotes the view that efficacy beliefs shape causal attributions and "unless people believe they can produce desired effects by their actions, they will have little incentive to act", in other words, the outcomes that people expect are largely dependant on the judgements they make of what they can accomplish.

1.3.3 Self-Efficacy and Locus of Control

Research conducted by Gist (1987) indicated evidence of a relationship between internal locus of control and self-efficacy, and proposed in particular a three-way interaction between self-efficacy, locus of control and goal setting. Bandura (1997) clarified this issue in his later work, and provided a persuasive argument that beliefs about whether one can produce certain actions (i.e. perceived self-efficacy) are not the same as beliefs about whether actions affect outcomes (i.e. locus of control).

Research data does not show support for an empirical relationship between the two constructs, moreover, while perceived self-efficacy is a strong predictor of behaviour, locus of control is a weak predictor of human behaviour (Bandura, 1997). Gist (1987) points out a further distinction in that while locus of control is a generalised construct covering a variety of situations, self-efficacy is task specific and focuses on an

individual's conviction that he or she can perform a specific task at a specific level of expertise.

Self-efficacy has also been compared to other motivational concepts like internal locus of control, goal setting, feedback and the Pygmalion effect (Gist, 1987). The importance and positive impact of goal setting on performance and employee motivation has been detailed in many studies of organisational behaviour (Gist, 1987). Locke et al (1984, cited in Gist, 1987) proposed an integrating relationship between self-efficacy and goal setting. Studies conducted by Locke et al (1981) found that perceptions of self-efficacy lead to more productive goal setting, in particular, the strength of efficacy perceptions affected the goal level chosen, the specificity of goals, goal commitment and task performance.

The Pygmalion effect phenomenon has also been found to lead to enhanced performance resulting from the positive expectations of others (Gist, 1987). Gist (1987) proposes that self-efficacy may be involved in the Pygmalion effect through the persuasive influences of others holding and expressing positive expectations. A leader's positive expectations of an individual's performance may be viewed as persuasive input to efficacy perceptions.

Bandura (1999) advocates that beliefs of personal efficacy form the foundation of human agency, and that all other factors that serve as motivators are rooted in the core belief that one has the power to produce desired effects by one's actions.

The following section reviews research conducted into the sources or antecedents of self-efficacy beliefs.

1.4 OVERVIEW OF THE FOUR INFORMATION SOURCES OF SELF-EFFICACY

According to Bandura (1997), self-efficacy beliefs are derived from four principle sources of information: enactive mastery experiences (performance accomplishments), vicarious experiences (modelled exposure), verbal persuasion and physiological arousal or effective states. Pajares (2000) supports Bandura's (1997) view that individuals create

and develop self-efficacy beliefs from various sources, however, Early & Gibson (1999) argue that the origins of efficacy judgements are not clear, particularly the information sources that people use in forming their self-efficacy beliefs. Bandura (1997) acknowledges that the sources are more varied and complex than implied by the four categories of information sources. Gist (1987) believes that while these four sources provide important information cues, it is the cognitive appraisal and integration of data from the information sources that ultimately determines self-efficacy.

While people are inherently seekers of information, not all information that is available in the environment will influence self-efficacy beliefs (Early & Gibson, 1999). Bandura (1997) proposes that information will have meaning and impact on efficacy judgements only once it has been selected, weighted and integrated into an individual's cognitive beliefs (Bandura, 1997). The actual impact of any information obtained will depend on how an individual cognitively evaluates the information conveyed, thus, perceptions of self-efficacy are more strongly influenced by the subjective perceptions of personal and situational factors, rather than the direct impact of objective reality (Stadjkovic & Luthans, 1998).

The four sources of efficacy information will be discussed in this section, including the dynamic influence of various information cues and the impact of other external and internal determinants of efficacy beliefs.

1.4.1 Enactive Mastery Experience

Bandura (1977) believes that self-efficacy beliefs are more strongly affected by an individual's direct experience with tasks, that is, enactive mastery experiences are the most influential source of efficacy information. Self-efficacy beliefs are strengthened when tasks are successfully performed, as success indicators convince people that they have what it takes to succeed (Bandura, 1997). After performing a particular task individuals reflect on their behaviour, cognitively interpret the results or effects of their actions, use this interpretation to create or develop personal beliefs around their own capability, then engage in subsequent behaviours in similar situations and behave in accordance with beliefs created (Pajares, 2000).

Subsequent human behaviour is thus mediated by an individual's beliefs about his or her own capabilities. Successful outcomes raise perceptions of self-efficacy, while failure to achieve desired outcomes lowers self-efficacy, especially if the failures occur early in the learning process (Brief & Aldag, 2001; Pajares, 2000). For a resilient sense of self-efficacy to develop, people should experience challenging obstacles through perseverance as this provides assurance of these capabilities and the belief that they can endure setbacks and failures and still succeed (Appelbaum, 1996). Experiences of easy successes only can create expectations of quick results and lead to rapid discouragement in the face of failure (Bandura, 1997).

Self-efficacy beliefs can either be strengthened or weakened through task experience. Shea and Howell (1999) argue that for enactive mastery experiences to result in proficient performance, the following ingredients must be present: firstly, there must be a standard against which actual performance can be measured and secondly, feedback on actual task performance must be available in a form that facilitates comparison of actual performance against the desired standard of performance. Research results indicate that the content and timing of task feedback significantly affects performance, especially feedback that is specific about the discrepancies between actual performance and required performance.

Changes in self-efficacy will depend on how individuals process the information that the previous performance generated and how they cognitively interpret the results of their actions. It is therefore not an individual's performance per se that produces changes in self-efficacy, but rather what the individual personally makes of diagnostic information resulting from that performance (Stadjkovic & Luthans, 1998). Experiences of success enhance self-efficacy only if an individual attributes performance accomplishments to their own capabilities, rather than to external factors or aids and luck (Brief & Aldag, 2001). The self-diagnostic value of successes and failures for judging personal efficacy will also depend on the perceived difficulty of a task (Bandura, 1997).

According to Gist (1987), although enactive mastery has been shown to enhance self-efficacy more than information cues from the other sources, some individuals may not

expose themselves to opportunities for enactive mastery possibly due to fears or incapacity (Gist, 1987).

A number of environmental or situational factors influence an individual's evaluation of performance and the process of forming efficacy judgements (Bandura, 1997; Cervone, 2000; Stadjkovic & Luthans, 1998). Situational factors that have been identified include the amount of resources that are available to complete the task successfully, physical distractions in the environment (e.g. noise, interruptions), the amount of external aid received, the type of supervision, style of leadership, the type of feedback received from external sources, information available in the environment and goal setting practices (Appelbaum, 1996; Bandura, 1997; Cervone 2000; Stadjkovic & Luthans, 1998). These environmental factors may impact the estimates of self-efficacy judgements.

Shea and Howell's (2000) research findings support Bandura and Cervone's' (1986) findings that feedback regarding actual performance against specified standards or goals is important in the formation of efficacy judgements. Specifically research results revealed that individuals who received task feedback outperformed those who did not receive any task feedback.

1.4.2 Vicarious Experience

Efficacy appraisals are partly influenced by vicarious experiences or social modelling. Environments are rich in information and as such knowledge about capabilities is also generated from the social environments in which people work (Bandura, 1977). Research conducted by Stadjkovic and Luthans (1998) support Bandura's findings that vicarious learning or social modelling occurs by observing competent individuals or role models performing similar tasks.

More recent research by Wood and Bandura (2001) revealed that four component processes, namely, attentional, cognitive representational, behavioural production and motivational processes, govern observational learning. Attentional processes determine the modelling influences that people will selectively observe and what information they extract from modelled activities. Cognitive representational processes involve an active process of transforming and restructuring information inferred from observed events into

rules and conceptions. Behavioural production processes involve translating symbolic conceptions and rules into appropriate courses of action and new behaviour patterns. Motivational processes influence the performance of observed behaviour through three types of incentive motivators: direct, vicarious and self-produced. People will tend to model the observed behaviour if they observe that the modelled strategies produce valued outcomes, rather than unrewarded or punitive effects. People will also evaluate the observed behaviour against their own personal standards, which then also regulates which observed behaviour they are most likely to pursue, providing a further source of motivation (Wood & Bandura, 1989). Vicarious modelling is therefore not merely a process of “behavioural mimicry” (Wood & Bandura, 1989).

A number of studies conducted have all yielded consistent findings of the effects of social modelling on perceptions of self-efficacy (Appelbaum, 1996; Bandura, 1997; Brief & Aldag, 2001). Observing others performing similar tasks successfully provides a basis for social comparison and judgement of one’s own capabilities (Appelbaum, 1996). Seeing people similar to oneself performing tasks successfully raises efficacy beliefs in the observer and strengthens their conviction that they can also master comparable activities (Bandura, 1997). Individuals persuade themselves that if others similar to them in their environment can master a task, they should also be able to achieve at least some minimal level of competency (Brief & Aldag, 2001).

Research findings yielded by Gist (1987) suggest that modelling can have negative as well as positive influences on self-efficacy (Gist, 1987). Observing others perceived to be similarly competent fail can lower an observer’s judgements of his or her own capabilities and can dissuade them from taking similar action (Gist, 1987).

According to Bandura (1977) the effects of vicarious experiences are particularly enhanced when the modelled behaviour produces clear consequences and when there is a perceived similarity between the individual and the model in terms of age, capability, and other personal characteristics. Stadjkovic and Luthans’ (1998) research findings support Bandura’s earlier research that the social environment in which people work can influence efficacy judgements. In particular they found that the greater the perceived similarity between the model and the observer, the greater the model’s influence on the

observer's learning (Stadjkovic & Luthans, 1998). An individual's colleagues, supervisors, mentors or appointed coaches in the work environment can exercise a great deal of influence on perception of self-efficacy and the resultant development of strategies for successful performance. The degree of influence that these models can exercise depends on how sensitive observers are to vicarious information.

Bandura (1997) outlined several conditions under which self-efficacy appraisals are especially sensitive to information conveyed vicariously: the amount of uncertainty about one's capabilities due to limited prior experience on which to base efficacy judgements; mixed experiences of success and failure; and changes in tasks and activities (Bandura, 1997). These conditions encourage social comparative inference about one's capabilities, in other words, the appraisal of one's capabilities in relation to the attainment of others. These social comparisons or models provide a social standard against which to appraise personal capabilities (Bandura, 1997). Furthermore Bandura (1997) suggests that social comparison is critical when individuals lack relevant prior task experience or when standards for success are ambiguous.

According to Bandura (1986) these social models provide more than just a social comparison, they also transmit knowledge, effective skills and strategies for managing environmental demands to observers. Modelling therefore not only strengthens appraisals of efficacy, but can also raise levels of competence and motivation, and further self-development. Observers model not only the actions of others but also attitudes that are conveyed through their behaviour (Bandura, 1997). Observing failure can also raise perceived efficacy when observers see that a particular strategy has not worked, thereby raising the observer's confidence in better alternatives (Bandura, 1997). Bandura (1997) also proposes that the types of people who are most responsive to modelling influences are those who lack confidence and self-esteem.

Self-efficacy expectations induced by vicarious experiences are weaker than those derived from performance accomplishments as vicarious sources of information are seen as less dependable than one's own performance experiences (Brief & Aldag, 2001).

1.4.3 Verbal or Social Persuasion

Verbal or social persuasion by someone an employee trusts and sees as competent serves as a further means of strengthening perceptions of self-efficacy (Bandura, 1997). Verbal persuasion strengthens self-efficacy by enhancing people's beliefs that they possess the capabilities to achieve the performance level they desire, in other words it strengthens their conviction in their own abilities (Wood & Bandura, 1989). For verbal persuasion to be effective, employees should already have some basis to believe that they have the ability to accomplish a task (Stadjkovic & Luthans, 1998). According to Bandura (1997) verbal persuasion alone can positively affect self-efficacy appraisals if it is within realistic bounds. Raising unrealistic beliefs of personal capabilities will discredit the persuaders and further undermine an individual's belief in his/her capabilities.

The framing or structuring of performance feedback, in other words how it is conveyed to recipients can either undermine a person's sense of self-efficacy or boost it (Bandura, 1997). The nature of evaluative feedback can affect the appraisals of personal efficacy (Bandura, 1997). If individuals' receive realistic performance feedback and encouragement, they will tend to feel more confident in their own capabilities and will be more likely to exert more effort than if they are plagued by self-doubts (Wood & Bandura, 1989).

Research conducted by Schunk (1983, as cited in Bandura, 1997) found that evaluative feedback highlighting personal capabilities raises efficacy beliefs, while performance that is attributed solely to effort conveys the message that one's capabilities are limited and require arduous work, thereby producing a lower sense of self-efficacy. Indirect appraisals or evaluations that are masked in ambiguous feedback also tend to lower recipient's judgements of their capability. Feedback that is framed as performance achievements highlighting personal capabilities is likely to support self-efficacy development, whereas informative feedback that is framed in terms of shortfalls from performance goals can diminish a sense of personal efficacy because the deficiencies are highlighted. Devaluate feedback that harshly criticises the performer rather than providing helpful guides on how to improve performance undermines self-efficacy beliefs, while constructive criticism often bolsters a sense of personal efficacy (Baron, 1988, as cited in Bandura, 1997).

Persuasive efforts to boost self-efficacy have impact depending on the perceived credibility of the persuaders, their prestige, trustworthiness, and expertise and how knowledgeable they are about the relevant tasks or activities (Bandura, 1997; Brief & Aldag, 2001). The recipient's confidence in the persuader is mediated through perceived credibility and level of expertise. Individuals are however more inclined to trust their own personal evaluations and efficacy judgements, as they believe they know themselves and their situations better than what others do (Bandura, 1997). People will be inclined to trust evaluations of their capabilities by those who are themselves skilled in the activity, have access to some objective predictors of performance capability, or possess a rich fund of knowledge gained from observing and comparing many different aspirants and their later accomplishments (Grundall & Foddy, 1981, Webster & Sobieszek, 1974, as cited in Bandura, 1991). Perceived knowledge of the realities that performers have to manage, in other words, their understanding of task demands is another important consideration when recipients evaluate the credibility of social persuaders. "The judgements of others may be discounted on the grounds that they do not fully understand the task demands" (Bandura, 1997 p. 105).

According to Appelbaum, (1996) the objective of verbal persuasion is not to create unrealistically high expectations but to foster greater task-directed effort through enhancing individuals' beliefs in their own efficacy. Those attempting to build the self-efficacy of others, should do more than just raise people's beliefs in their capabilities, they should also assign tasks to them in ways that bring success and should avoid placing them prematurely in situations where they are likely to fail (Bandura, 1998). Verbal persuasion, like vicarious experiences leads to weaker self-efficacy expectations because it does not provide an authentic experiential base (Brief & Aldag, 2001).

1.4.4 Psychological Arousal

A fourth source of self-efficacy is the individual's state of psychological and emotional arousal (Bandura, 1997). When judging personal capabilities individuals also partly rely on the information conveyed by physiological and emotional states: people tend to perceive psychological and/or emotional activations in stressful situations as signs of vulnerability and dysfunction and are more inclined to expect success when they are not emotionally agitated (Bandura, 1997).

Physiological indicators also affect people's judgements about their capability or personal efficacy in activities requiring physical strength and stamina, as people tend to read their fatigue, aches and pains as being indicative of physical inefficiency (Bandura, 1997). An individual's perceptions of self-efficacy may also affect how psychological states are viewed and the subsequent impact on performance; employees with high efficacy beliefs may view psychological arousal as energising factors, whereas low efficacy employees may tend to view it as a performance debilitator (Stadjkovic & Luthans, 1998).

Pre-existing self-efficacy beliefs influence the processing of somatic information and its effect on future efficacy beliefs (Bandura, 1997). A low sense of self-efficacy heightens sensitivity to bodily states, whereas individuals with a stronger sense of personal efficacy interpret bodily sensations as benign and remain psychologically unperturbed. Individuals with weaker self-efficacy perceptions tend to attribute the source of their emotional arousal to personal inadequacies and lower their perceived efficacy even further (Bandura, 1997).

The processing of somatic information occurs in the context of other diagnostic efficacy indicators, namely prior mastery experiences, validation of capability in comparison with others, and appraisals by significant others (Bandura, 1997). When somatic information conflicts with these efficacy indicators, more weight is usually assigned to the latter because they are more reliably diagnostic of personal capabilities than somatic sources (Bandura, 1997). When individuals are plagued with self-doubt derived from other efficacy indicators, the somatic source provides supporting or redundant efficacy information (Bandura, 1997).

Mood states provide an additional source of efficacy information because they often affect the quality of functioning (Bandura, 1997). In particular, mood states can affect how events are interpreted, cognitively organised and retrieved (Bower, 1981, 1983; Eich, 1995; Isen, 1987, as cited in Bandura, 1997). Wright and Mischel (1982, as cited in Bandura, 1997) advocate that moods can bias how much perceived self-efficacy is derived from successes and failure experiences. Successes experienced in a positive

mood facilitate high levels of perceived efficacy, whereas failures in negative mood undermine feelings of efficacy (Bandura, 1997).

1.4.5 Information Cues in Self-Efficacy Formation

Gist & Mitchell (1992) argue that the experiences of mastery, modelling, persuasion and arousal are more complex than their labels imply, as each of these experiences contribute a variety of external and internal information cues that influence self-efficacy.

Three types of assessment processes seem to be involved in the formation of efficacy beliefs (Gist & Mitchell, 1992). The *first process* involves an analysis of task requirements, which produces inferences about what is needed to perform at various levels. The *second form of analysis* involves the individual's judgements or attributions of the reasons for a particular level of performance, which may be attributed to personal experiences or may be inferred from experiences such as modelling or persuasion. The *third process* involves the assessment of the availability of specific resources required for a task and an assessment of the constraints that may inhibit task performance. This assessment involves consideration of personal factors such as skill level, anxiety, desire and available effort, and situational factors such as competing demands and distractions. According to Gist & Mitchell (1992) these assessment processes yield interpretative data that may be used in a summary-level judgement of self-efficacy. This view is in line with Bandura's (1986) argument that an individual's self-efficacy appraisal is a process in which information from different sources are weighted and integrated, and that the relative weighting of information may vary across different domains or situations.

According to Gist & Mitchell (1992) judgements about self-efficacy become more routinised and automatic as experience with a task increases. As a person gains task experience, it is likely that the individual will use past performance and attributions about the causes of that performance to influence the judgement of their capability. When tasks are novel or unfamiliar, a more detailed analysis of the task demands, the environmental constraints and the individual's own personal factors may be likely. Forming efficacy judgements therefore may involve extensive analysis of task requirements and/or the recollection of past performance levels. Accumulated personal

experiences of task performance provides direct knowledge about capabilities and should lead to more automatic processing and formation of efficacy judgements, whereas data from social modelling, verbal persuasion and arousal are less direct and would require a more extensive analysis of task requirements (Gist & Mitchell, 1992).

A number of factors will influence the efficacy indicators that people will attend to and the information base upon which the self-appraisal process operates, this includes various personal, social and situational factors (Bandura, 1997). Perceptions of self-efficacy can be influenced by a number of contextual cues that may bias the process of forming personal efficacy judgements; therefore both individual and situational factors need to be considered when exploring the formation of efficacy beliefs (Cervone, 2000).

1.4.6 Internal and External Determinants of Self-Efficacy

Amongst the factors, which influence the development of self-efficacy, are conceptions of ability, perceived controllability, information or assumptions which link successful performance to internal or external factors, and feedback received regarding previous performance (Appelbaum, 1996; Bandura, 1988). Wood and Bandura (1989, as cited in Appelbaum, 1996) demonstrated the effects of a number of these determinants in an experiment, which addressed self-efficacy in an organisational context using a computer simulated organisational environment.

According to Bandura (1988) an individual's conception of ability can have a powerful impact on personal functioning. Whether ability is viewed as an acquirable skill that can be enhanced or as a fixed capacity, will influence the tasks that people undertake and their diagnosis of their capabilities to succeed (Bandura, 1988). Individuals who view ability, as an acquirable skill will take a task diagnostic focus when faced with a challenging task, while those who view ability, as a fixed capacity will take a self - diagnostic focus on personal deficiencies and possible adverse outcomes. This self-diagnostic view could prevent people from exposing themselves to opportunities for enactive mastery due to fears and perceptions of incapacity (Gist, 1987). This type of thinking undermines effective use of capabilities (Bandura, 1988). Another important belief system concerns people's beliefs about the degree of control they can exercise in their life, which includes perceptions of the changeability of the environment (Bandura,

1988). Research found that individuals who believe they can influence their organisational environment by their actions, adopted higher goals and persevered in their goal attainment (Bandura, 1988).

Information sought by people may be tied to the cultural values that are held by individuals, such as individualism-collectivism (Early & Gibson, 1999). The information individuals will seek out about their actions is tied to their self-concepts, which in turn is tied to cultural values such as individualism-collectivism (Early & Gibson, 1999). An individual, whose self-concept is based on a collectivist view, may seek out information that is group-referenced, whereas an individual whose self-concept is based on an individualistic view may access individual-reference feedback. Research findings suggest that self-efficacy beliefs are influenced most strongly by personal referents for individualists, however collectivists' judgements of efficacy were influenced by both individual and group feedback (Early & Gibson, 1999).

Information derived from different sources in the environment influence the formation of self-efficacy judgements (Appelbaum, 1996). Research results indicate that self-efficacy judgements are dynamically influenced by externally provided information (Appelbaum, 1996), and as such the influence of contextual factors in the formation of efficacy judgements need to be explored when examining the information sources that are used in forming self-efficacy beliefs (Pajares, 2000). Factors in the organisational context that may influence the selection of information referents include the accessibility of the source, credibility of the feedback giver and the possible affective sign of the information (Sully De Luque, 2000). Other external factors also influencing self-efficacy judgements include task complexity (i.e. the steps required to perform the task successfully), task uncertainty (i.e. the dynamic elements of a task) and the actual environment in which the task is performed (Appelbaum, 1996).

Research conducted within the South African life assurance industry found that supervisory support moderated the relationship between self-efficacy and supervisor-rated performance (Ballantine & Nunns, 1998). Employee performance was highest when low levels of self-efficacy occurred together with high supervisory support; specifically supervisory support enhanced an individual's confidence to set more difficult

goals, resulting in higher levels of performance. While supervisory support enhances the performance of individuals with low efficacy, the study showed that it inhibits the performance of individuals with high efficacy (Ballantine & Nunns, 1998). Findings suggest that individuals with high efficacy possibly require less supervisory support precisely because of their self-efficacy; as a moderator, supervisory support becomes less important for highly efficacious individuals (Ballantine & Nunns, 1998).

An organisation's goal-setting practices could also influence the process of forming efficacy judgements (Appelbaum, 1996). People adopt internal standards in order to provide a yardstick against which to judge their performance and capabilities (Bandura, 1988). Goals not only guide, direct and motivate performance by providing the standards against which individuals can measure and evaluate their capabilities; they also help to build people's beliefs in their capabilities (Bandura, 1988). Goals that are set too high can result in performance failure and have a negative impact on self-efficacy, whereas goals that are easily attainable could create a false sense of self-efficacy and lead to rapid discouragement in the face of failure (Appelbaum, 1996). The management of organisational goal setting practices is important due to the impact it has on self-efficacy beliefs (Appelbaum, 1996).

According to Pajares (2000) research in this area should try to identify the sources of information other than those typically used, namely aptitude, ability and previous performance accomplishments, and should also examine how information from these different sources is integrated in the formation of efficacy judgement.

The next section details the impact of self-efficacy beliefs on psychological function through four major processes: cognitive, motivational, mood or affect and selection.

1.5. IMPACT OF SELF-EFFICACY ON PSYCHOLOGICAL FUNCTIONING

The issue of whether feelings of self-worth are primarily responsible for increased achievement or whether successful performance is largely responsible for stronger feelings of self-worth has been at the centre of self-concept research (Pajares, 2000). Bandura (1986) posits that because of the reciprocal nature of human behaviour, it is

unlikely that this question can be resolved, and therefore attention should be directed to understanding the conditions under which self-efficacy beliefs operate as causal factors in human functioning, through their influence on choice, effort and persistence. Research findings indicate that perceived self-efficacy regulates human functioning or behaviour through four major processes: cognitive, motivational, mood or affect and selection (Bandura, 1988; 1994; 1997; 1999):

Cognitive level: Efficacy beliefs affect thought patterns that can either enhance or undermine performance. Individuals who have a high sense of efficacy construct anticipatory cognitive scenarios and visualise success, while those who doubt their efficacy visualise failure and dwell on personal deficiencies or ways in which things may go wrong. Individuals with a strong sense of personal efficacy guide their actions and influence the outcomes of their actions by setting themselves challenging goals, committing themselves fully to meeting these challenges and having high personal aspirations of success.

Motivational level: Self-efficacy beliefs determine the goals people set for themselves, how much effort they will expend, how long they will persevere and how resilient they are when faced with adverse situations, failures or setbacks. Individuals who have strong beliefs in their personal efficacy tend to attribute failure to insufficient effort or adverse situational conditions, while those low in efficacy, tend to attribute failure to low ability. The stronger an individual's belief in his or her own personal efficacy, the more that person will persist in their efforts to master a challenge. Those who doubt their capabilities reduce their efforts when faced with obstacles and settle for something less or give up altogether. Perceptions of self-efficacy influence the goals people set for themselves, and in turn these goals can operate as powerful motivators.

Mood or affect: People's belief in their coping abilities will affect how much stress they will experience in difficult situations. Beliefs of personal efficacy influence how an individual perceives and cognitively processes threats and taxing demands. People, who have a strong sense of coping efficacy, believe they can manage threats and will be less stressed by them, while those with low self-efficacy will be more likely to magnify the severity of risks and worry about unlikely events. Individuals who are highly efficacious

cognitively transform negative or disturbing thoughts and are confident that they will be able to relieve their stress. Perceived efficacy also contributes to depression in a variety of ways, in particular if people internalise standards of self-worth they believe they cannot attain, they will devalue their achievements and drive themselves to bouts of depression (Bandura, 1997).

Selection: Beliefs of personal efficacy will also influence the activities that people will engage in and the environments they will select. People with low self-efficacy will avoid activities and environments they believe exceed their coping capabilities, while those high in self-efficacy will readily undertake challenging activities and freely select environments they believe they are capable of managing. When faced with challenging tasks, individuals low in self-efficacy will dwell on personal deficiencies and worry about obstacles they will encounter. Instead of success they will foresee failure and will tend to slacken their efforts as soon as they are faced with obstacles or setbacks.

Bandura (1986) observed that there are a few conditions under which beliefs of self-efficacy do not perform their influential, predictive or mediational role in human functioning. For example in prejudicially structured systems, people may experience that regardless of the amount of skilful effort, the desired outcome will not be achieved and as a consequence self-efficacy does not have a bearing on performance as individuals may choose not to apply the skilful effort they possess (Pajares, 2000).

Bandura's (1988; 1994; 1997; & 1999): research findings support the notion that self-efficacy beliefs regulate human functioning through cognitive, motivational and selection processes, and it follows therefore that self-efficacy beliefs have implications for behaviour within organisations. The next section reviews relevant research findings in this regard.

1.6 IMPLICATIONS OF SELF-EFFICACY FOR ORGANISATIONAL BEHAVIOUR

A vast amount of research attempted to validate Bandura's (1977) model of self-efficacy in a number of domain specific areas such as agoraphobia (Bandura et al 1982, as cited in Harrison & Rainer, 1997), bulimia (Schneider, O'Leary & Bandura, 1985, as cited in

Harrison & Rainer, 1997), children's arithmetic achievement (Schunk & Gunn, 1986, as cited in Harrison & Rainer, 1997), fear arousal (Bandura, Reese & Adams, 1982, as cited in Harrison & Rainer (1997)), phobic disorders (Birin & Wilson, 1981, as cited in Harrison & Rainer, 1997) and smoking reduction (Baer, Holy & Lichtenstein, 1986, as cited in Harrison & Rainer, 1997).

Research during the past twenty years has increasingly focused on the contribution that Social Cognitive Theory can make in the area of work performance (Appelbaum, 1996). Empirical evidence yielded by research conducted in the 1990's has given strong support to the relationship between task performance, motivation and self-efficacy (Gist, 1987). Several studies reported a significant relationship between self-efficacy and work-related performance (Bandura, 1997; Brief & Aldag, 2001; Wood & Bandura, 1989). Research has demonstrated that self-efficacy beliefs affect performance attainments by influencing effort, persistence and perseverance in task attainment (Pajares, 2000). The causal contribution of self-efficacy appraisals to behaviour has been demonstrated through the results of various studies (Cervone, 2000), specifically an individual's perception of self-efficacy has been found to significantly predict future performance in various domains (Bandura, 1997).

Self-efficacy beliefs play a central role in the self-regulation of motivation (Bandura, 1999). Research findings of Bandura (1991) and Locke and Latham (1990) produced similar findings of the impact of perceived self-efficacy on goal aspirations. It is partly on the basis of self-efficacy that people choose which goals to pursue, the amount of effort to invest in pursuing the goal and how long to persevere in the face of difficulties and obstacles (Locke & Latham, 1990). When faced with obstacles, setbacks and failures, those who have conviction in their capabilities to succeed redouble their efforts, while those who doubt their capabilities slacken their efforts, give up or settle for mediocre solutions (Bandura, 1991). The stronger an individual's perceived self-efficacy, the higher the goal aspirations people adopt, and the firmer their commitment to the goals will be (Bandura, 1991; Locke & Latham, 1990).

Personal beliefs of efficacy can also influence the direction an individual's development takes and the career path they choose to follow (Bandura, 1988). The stronger an

individual's sense of self-efficacy, the more career options they will consider and the better they will prepare themselves educationally for different occupational pursuits and not be constricted by their limited beliefs in their own capability (Bandura, 1988).

Previous research findings have found self-efficacy to be a better predictor of future performance than past behaviour (Gist, 1987), as long as the efficacy measure is tailored to the specific tasks being assessed (Bandura 1982, as cited in Gist, 1987). Self-efficacy theory also provides new insights into self-esteem/job performance relationships, organisational socialisation processes and stress/job performance relationships (Brief & Aldag, 2001). Previous performance accomplishments or the skills people possess are not necessarily good predictors of future performance, because self-perceptions of capability help determine what individuals do with the skills and knowledge they have (Pajares, 2000). This does not mean that people can accomplish tasks beyond their capabilities by simply having the personal belief that they can, rather it means that for competent functioning or performance there must be a congruency between skills and knowledge on the one hand and personal beliefs of efficacy on the other hand (Pajares, 2000).

Despite the impressive empirical support for the relationship between self-efficacy and work performance, the field of human resource management has paid little attention to the organisational applications of self-efficacy (Appelbaum, 1996 & Gist, 1987). Human resource management practices in the area of work motivation and performance have reflected the application of goal setting theory and rewards in order to enhance motivation and performance, but seem to have overlooked the influence of an individual's evaluation of his or her task competence, that is, perceived self-efficacy.

Although previous empirical research supports the relationship between self-efficacy and work performance, several limitations of previous empirical research identified by Harrison and Rainer (1997) must also be noted. Firstly, most of the empirical research was performed in a laboratory, secondly many samples consisted exclusively of students as opposed to employees in organisational settings, and thirdly the majority of the research was performed with tasks that did not relate to organisational performance. Harrison and Rainer (1997) argue that as a consequence many findings are not

generalisable to actual performance, whilst Gist (1987, as cited in Harrison & Rainer, 1997) stressed the need for more detailed examinations of self-efficacy and its linkages to performance in organisational settings.

Although previous research reported significant relationships between self-efficacy and motivation variables such as effort, persistence and perseverance, Pajares (2000) argues that it is still not clear how these connections are made or under what conditions similar beliefs can result in different levels of motivation. This is primarily due to the fact that effects are generally assessed in terms of students' self-reported effort and persistence, rather than investigator-observed effort and persistence (Pajares, 2000). These researchers believe that two strategies are called for: researchers should firstly assess both the sources and the effects of self-efficacy through direct observation rather than rely on self-reported accounts; and secondly the use of experimental techniques to manipulate sources and effects should be increased (Maehr & Pintrich, 2000). These researchers also promote that quantitative efforts will have to be complemented by qualitative studies aimed at exploring how efficacy beliefs are developed and how individuals perceive their self-efficacy beliefs to influence their attainments, career paths, choices, effort, persistence, perseverance and resiliency (Maehr & Pintrich, 2000). The current research employs qualitative methodologies to explore the origins of self-efficacy beliefs in an organisational setting.

1.7 SUMMARY

This chapter reviews the salient theoretical literature and research conducted in the self-efficacy arena.

The formation of self-efficacy beliefs is a complex and generative process (Cervone, 2000). Self-efficacy is the outcome of a process of weighing, integrating and evaluating information about one's capabilities (Gist, 1987) and is anchored in cognitive processes that construct beliefs about capacity to perform (Bandura, 1977).

Beliefs of personal efficacy form the foundation of human agency (Bandura, 1999) and regulate human behaviour through cognitive, motivational, affect and selection

processes (Bandura, 1977; 1988; & 1999). Although the self-efficacy construct has been likened to other similar self-concepts and motivational constructs, Bandura (1999) strongly advocates that all other factors influencing human behaviour are rooted in the core belief about one's own sense of capability to produce desired outcomes by one's own actions.

Self-efficacy beliefs are derived from four principal sources of information: enactive mastery experiences, vicarious experiences, verbal persuasion and psychological arousal (Bandura, 1997). Enactive mastery experiences are posited as the most influential source of efficacy information (Bandura, 1977). A number of personal, social and situational factors also influence the process of forming efficacy judgements (Bandura, 1997; Cervone, 2000 and Stadjkovic & Luthans, 1998) and as such both individual and situational factors need to be considered when exploring the formation of self-efficacy beliefs (Cervone, 2000).

A vast body of empirical research supports the relationship between self-efficacy, motivational variables such as effort and persistence, and work performance (Appelbaum, 1996; Brief & Aldag, 2001; Gist, 1987). In particular findings suggest that self-efficacy is a better predictor of future performance than past behaviour (Gist, 1987).

The following chapter details the qualitative methodology employed in this study.

CHAPTER 2- METHODOLOGY

The purpose of this study is to explore the information sources that are relevant to the formation of self-efficacy beliefs within an organisational context. This chapter details the methodology employed in this research and its application to the current study.

Section 2.1 covers the philosophy underlying the methodology. Section 2.2 deals with the unit of analysis, while section 2.3 details the data collection methodology. Section 2.4. addresses methods of data analysis and interpretation. Section 2.5 deals with issues of quality pertaining to the research and section 2.6 provides a summary of the chapter.

2.1 PHILOSOPHY UNDERLYING METHODOLOGY

The methodology employed in this study is broadly described as qualitative research. The research design is exploratory and descriptive using qualitative interviews as the method of data collection. A key distinguishing feature of qualitative research is that the researcher attempts to gain understanding by occupying the frame of reference of the individual (Miles & Huberman, 1994). This methodology is based on a phenomenological approach to inquiry, that is, an understanding of the meaning events have for persons being studied (Maykut & Morehouse, 1994).

The purpose of the present study is to deepen the understanding of the formation of self-efficacy beliefs within a work context from the perspective of employees selected as participants in the study. Through qualitative research, the author believes that the dynamic process underlying the formation of self-efficacy beliefs will be surfaced, yielding rich experience-based data from the perspective of individual employees. Because qualitative research provides rich and holistic data, it has strong potential for revealing complexity and yielding "thick" descriptions that are vivid and contextual (Miles & Huberman, 1994). Personal meaning is tied to context (Maykut & Morehouse, 1994), therefore it follows that this qualitative form of inquiry will produce contextual findings. The goal of this research is not to form any generalisations of the results.

While quantitative research is based on observations that are then converted into discrete units and compared to other units via statistical analysis, qualitative research generally examines people's words in narrative or descriptive ways, taking into account the contextual meaning of words (Maykut & Morehouse, 1994). The predominant quantitative nature of previous research of the self-efficacy construct may be due to Bandura's (1986) proposition that the measurement of self-efficacy cognitions be carried out in a micro-analytical fashion, focusing on the assessment of task-based self-efficacy along dimensions of level, generality and strength. Bandura's (1986) argument is based on the view that self-efficacy is not a generalised trait but rather a context specific judgement that should be considered relative to role and task-specific skills (Wiegand & Stockholm, 2000). Since most previous studies have focused on the self-efficacy performance relationship, the analytical approach to the measurement or assessment of self-efficacy may have influenced the general research philosophy and methodology.

The present study assumes a nominalist, anti-positivist and voluntarist approach (Burrell & Morgan, 1979). The focus of this form of inquiry is on understanding the way in which the individual interprets the context or situation, and on uncovering unique explanations for the phenomena being experienced by occupying the frame of reference of the individual. The author believes that the nature of the information being sought in the present study is more suited to the application of qualitative research as a number of contextual factors and individual factors may influence the choice of information referents (Cervone, 2000).

Perceptions of self-efficacy are strongly influenced by the subjective perceptions of personal and situational factors rather than the direct impact of objective reality (Stadjkovic & Luthans, 1998). The epistemology of anti-positivism is thus wholeheartedly supported as it regards the social world as essentially relativistic and can therefore only be understood from the viewpoint of individuals who are directly involved in the activities to be studied (Burrell & Morgan, 1979). The anti-positivist paradigm or phenomenological approach to inquiry, accepts that values mediate and shape understanding and events shape each other, and as such only tentative explanations for one time and one place are possible (Maykut & Morehouse, 1994).

In terms of methodology, the ideographic approach is employed which is based on the view that the social world can only be understood by obtaining first hand knowledge of the participants in the study (Burrell & Morgan, 1979). The author firmly believes that the qualitative approach of the study will provide an understanding of the complexities influencing the choice of information referents in the formation of self-efficacy beliefs. The information referents influencing the formation of self-efficacy beliefs will be explored from the perspective of the individual operating within a particular organisational context. The researcher will attempt to gain insight through exploring those situations experienced by individuals as having meaning for and impact on self-efficacy beliefs. The context specific nature of the information being sought thus justifies the use of qualitative methodology, which is characterised by local groundness, that is data being collected in close proximity to a specific situation (Miles & Huberman, 1994). It is believed that the qualitative approach will yield rich holistic data about the experiences of individuals that are significant to the formation of self-efficacy beliefs.

Qualitative research is ideally suited for establishing meaning that people place on events, processes and structures (Miles & Huberman, 1994) and as such it is extremely well suited to the present study, particularly from the point of view that information affects perceptions of self-efficacy only once it has been selected and given meaning.

2.2 UNIT OF ANALYSIS

The *unit of analysis* in this study is the individual within the case. Abstractly, a case is defined as a phenomenon occurring within a bounded context (Miles & Huberman, 1994). The bounded context in this research is a division of an international fruit-marketing organisation responsible for the management of the supply chain. A total of sixty (60) highly skilled, professional staff are employed in this division.

The case in this study can be defined as consisting of skilled, professional (graduates or diplomats) employees with more than two (2) years work experience, currently employed in the supply chain division. The division of the organisation within which the study is located could also be classified as a case. Research subjects within this division constitute cases within this case. Yin (1984) explains this concept as cases having

subcases embedded within them. Single cases are considered to offer vivid and illuminating information and are common in qualitative research (Yin, 1984).

The *level of analysis* is that of the individual within the case. In other words, this study is seeking to explain a phenomenon occurring at the level of the individual; the unit at which the data collection strategy is directed is the individual and the unit to which data is assigned for analysis is the individual. The experiences of individuals and their insights relevant to the formation of their self-efficacy beliefs are researched. The aim of the present study is to provide insight into this phenomenon, specifically within an organisational context and thereby confirm or expand on existing theory. As Yin (1991) explains, a theory is a predicted pattern of events, which is placed alongside research results to see whether the pattern matches.

2.2.1 Sampling Strategy

Quantitative research requires researchers to construct a sample of the necessary size and type to generalise to the larger population. With qualitative research, on the other hand, the issue is not one of generalizability; it is that of access (McCracken, 1988). The core purpose of the qualitative interview is not to discover how many people share a particular "characteristic", but rather gaining deep insight into the "characteristic" in question. The principle that 'less is more' thus applies to qualitative research due to the intensivity of its objectives (McCracken, 1988). It is more important to work more intensively with a few people than more superficially with many of them (McCracken, 1988). For many qualitative research projects, eight respondents are deemed sufficient, as this group is not chosen to represent some part of the larger world (McCracken, 1988). The researcher in the present study selected fifteen (15) respondents to participate in the study and spent a minimum of one hour with each subject in order to gain meaningful insight into their personal experiences related to the formation of their self-efficacy beliefs.

The respondents were also deliberately selected in order to create a contrast in the respondent pool in terms of age, gender, education and occupation.

Actors

Miles & Huberman (1994) refer to actors as one sampling parameter. These are the individuals or research subjects included in the sample. In the present study, the sample consists of fifteen (15) individual employees currently occupying permanent positions within the supply chain division.

Setting

The setting for the present study is the workplace of individuals in the sample. All research cases or subjects were selected from one division as opposed to selecting them from across the various divisions or departments of the organisation. This was done in order to limit the number of variables influencing individual behaviour, and thereby ensures some degree of consistency in the work environment. The study is intended to provide insight into the formation of self-efficacy beliefs, in particular the information sources that have impact and meaning within an organisational context, and as such it was felt that drawing research subjects from differing environments would contaminate research findings, which would be unexplainable within the bounds of this study.

2.2.3 Sample Ethics

Accepted ethical procedures were adopted throughout this study. The researcher requested permission to conduct the study in writing (Appendix A). This request was made to the Director of the division. The purpose of the study was conveyed, the perceived benefit to the division was outlined, and a commitment was given to provide feedback of the results to both the interviewees and the management team. Upon obtaining written permission to conduct the study, the researcher contacted the potential research subjects to obtain their individual consent.

2.3 DATA COLLECTION

This section explains how data for the present study was collected. It includes detailed information on the instrumentation employed, the methodological philosophy underlying the instrumentation technique, as well as the interview content and context.

2.3.1 Prior Instrumentation

Qualitative research is conducted through an intense contact with a real life situation in order to gain a holistic insight of the context under study (Miles & Huberman, 1994). The researcher attempts to gain this insight by capturing the perceptions of “local actors” within the actual context through a process of “deep attentiveness”, empathic understanding and suspending perceptions about the topic being researched (Miles & Huberman, 1994).

In qualitative research the investigator or researcher serves as a “kind of an instrument” in the collection and analysis of data (McCracken, 1988); the researcher is essentially the main instrumentation or measurement device and there is relatively little standardisation of instrumentation. Qualitative research demands very little prior instrumentation [prior instrumentation refers to the extent to which the questions used to elicit information from subjects are detailed before engaging with the study subjects], however too little prior instrumentation can result in unfocused interaction with subjects where little valuable data is obtained (Miles & Huberman, 1994).

According to Miles & Huberman (1994) less prior instrumentation is required if the study meets the following validity criteria: construct validity (concepts are well grounded); descriptive/contextual validity (the account is complete and thorough); interpretive validity (the account connects with the “lived experience” of the people in the case); and natural validity (the setting is mostly undisturbed by the researchers presence). The present study fulfils all four validity criteria, thus the use of little prior instrumentation is supported.

The next section deals with the data collection technique employed in this study namely the qualitative research interview. The methodological philosophy underlying the qualitative research interview is also covered.

2.3.2 The Qualitative Research Interview

The technique of data collection in the present study is referred to as the “qualitative research interview” (Kvale, 1983).

The purpose of the qualitative interview is to obtain descriptions of the life-world of the interviewee's for the interpretation of the deeper meaning of the described phenomena (Hummelvoll & da Silva, 1998). Life-world is defined as the experiential world in which a person lives his or her everyday life, shaped by an individual's earlier and present experiences (Bengtsson, 1988, as cited in Hummelvoll & da Silva, 1998).

The qualitative research interview attempts to gain a descriptive, specific and focused insight into the life-world of the interviewee: *descriptive* in that the aim of the qualitative interview is to obtain uninterpretative descriptions (the interviewee is asked to describe as precisely as possible what he she experiences, feels and how he or she acts); *specific* in that the interviewee is asked to describe specific situations and action sequences in his or her life world (the interviewer does not seek general opinions); *focused* in that the qualitative interview focuses on specific themes of the life-world of the interviewee (Hummelvoll & da Silva, 1998).

A qualitative study has focus, however the focus is initially broad and open-ended, allowing for important meanings to be discovered (Maykut & Morehouse, 1994). It therefore follows that technically the qualitative research interview is semi-structured, that is it is neither a free conversation nor a highly structured questionnaire. The qualitative interview facilitates an exploratory and descriptive focus through an interview guide that focuses on certain themes.

Methodological Philosophy of the Qualitative Research Interview

Qualitative research generally examines people's words and actions in narrative or descriptive ways that more closely represent the situation as experienced by the participants in the study (Maykut & Morehouse, 1994). Qualitative research is based on the phenomenological position or approach, which has a focus on understanding the meaning events have for the individuals being studied (Patton, 1991, as cited in Maykut & Morehouse, 1994).

The qualitative research interview is an instrumentation technique grounded in hermeneutical phenomenology (Hummelvoll & da Silva, 1998). Hermeneutics can be defined as the art of interpretation and understanding. Its aim is to understand everyday

practices and experiences in order to find commonalities in meaning (Leonard, 1989 as cited in Hummelvoll & da Silva, 1998).

The present study fully embraces the hermeneutic-phenomenological approach as a meaningful way to gather information about the information referents or sources that have meaning and impact in the formation of self-efficacy beliefs. The researcher is interested in understanding the formation of self-efficacy beliefs from the perspectives of individuals within a particular context, specifically the work organisation.

The semi-structured in-depth interview enabled the researcher to elicit the personal stories and unique experiences of each individual participant in the study. In particular, the present study hopes to provide insight into those factors within the organisational context that may either inhibit or facilitate the formation of self-efficacy beliefs. Personal meaning is tied to context (Maykut & Morehouse, 1994) and as such the qualitative interview provides the researcher with the means to explore individual experiences of the impact of contextual factors as well as the personal meaning that is ascribed to various organisational experiences.

Dynamic structures of the Qualitative Research Interview

The qualitative research interview has to be understood within the context in which it takes place. Chaiklin (1993, as cited in Hummelvoll & da Silva, 1998) formulated a model that is particularly useful for the present study. The structural relationships represented in Chaiklin's model below reflect the dynamics of the interview and contribute to understanding its deep structure. This model is applied to the present study below.

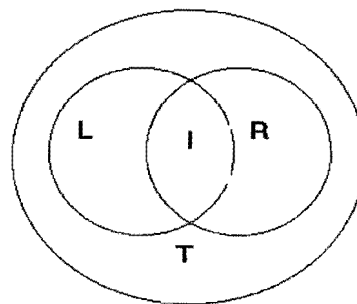


Figure 1: Chaiklin's Model

The qualitative interview takes place in a particular context, namely the interviewee's workplace. The inner circle *I (interview)* represents the relationship and interaction between the interview and the interviewee in the interview situation. The context of the interview is affected by the circles *L (life-world)* and *R (research)*. *L* marks the relationship between what the interviewee expresses in the interview and the many spheres of interaction and activities that exist in the interviewee's life-world. The interviewee is a mediating link between his or her own life world and the content of the interview. Kvale (1983) therefore holds the view that the interview should not be person-oriented but theme-oriented.

In the present study, *R* represents the relationship between the information collected by the researcher and the specific research topic under study. The information consists of the data that the researcher obtains as answers to the research questions. It is the interviewer who acts as a mediator and uses the content of the interview to illuminate the research problem. *R* also contains the researcher's own pre-understanding of the research problem, which is part of her professional life world.

As a whole, the qualitative research interview is framed by the circle *T (theory)*. The interpretation of the relationships between *I (interview)*, *L (life-world)* and *R (research-problem)* is made in terms of a hermeneutic-phenomenological approach and the knowledge of the formation of self-efficacy beliefs. The interviewer's own life-world was actively present throughout the research interview, however in order to arrive at an unbiased understanding of the information referents that have meaning and impact on the formation of self-efficacy beliefs from the perspectives of the study's participants, it was necessary to put this pre-understanding aside during the data collection. During the interpretation of these phenomena, the researcher's professional life-world was then used as a horizon of comprehension. Compared to the several experiences, descriptions and interpretations of the interviewees, a general understanding of the information sources influencing the formation of self-efficacy beliefs emerges as it is experienced by the fifteen study participants.

2.3.3 The Interviews

The data of qualitative inquiry is most often people's words and actions, and requires methods that enable the researcher to capture language and behaviour (Maykut & Morehouse, 1994). In-depth interviews are one of the most useful ways of gathering these forms of data (Kvale, 1996; Maykut & Morehouse, 1994). Data for the present study was collected through the use of lengthy individual interviews with each of the fifteen subjects.

In qualitative research it is important that the researcher allows the respondent to tell his or her own story in his or her own terms. The qualitative interview is potentially a 'Pandora's box' with the data almost always extra-ordinarily abundant (McCracken, 1988). It is therefore just as important that the interviewer exercise some measure of control over the interview. A well-designed questionnaire helps to give structure to the interview and impose order on the data (McCracken, 1988).

In the present study, well-designed questions were important in helping the respondents to uncover and surface beliefs that have been submerged beneath the surface of the consciousness. Generally most respondents have difficulty giving a full account of what they believe as over time their beliefs became assumptions.

The researcher took care to cover all the questions in more or less the same order for each respondent, in this way somewhat prescribing the conversational context of each interview (McCracken, 1988). While the questions brought structure and order into the qualitative interview, it did not pre-empt the open-ended nature of this methodology. Within each of the questions, the opportunity for unstructured and exploratory responses remained. This opportunity is in fact essential to allow variability within the interview (McCracken, 1988).

The goal of qualitative research is to isolate and define categories during the process of research (McCracken, 1988). Qualitative research looks for patterns of interrelationship between many categories rather than sharply delineated relationships between them. A key difference between quantitative and qualitative methodology is the data reporting abilities of the respondent. With quantitative research the respondent can identify

precisely what is wanted, is able to retrieve it easily and report it without any ambiguity. Qualitative research questions on the other hand are much more demanding. The respondent has more difficulty identifying or determining exactly what the researcher wants and therefore has to labour to identify and articulate a response (McCracken, 1988). The present study attempted to gain insight into the cognitive processes (formulation of beliefs at the cognitive level) and as such the questions posed by the researcher were more than likely quite demanding on the respondent. The qualitative methodology is therefore highly suitable to the current research as the approach provides a broader, more flexible net (McCracken, 1988).

Context

Qualitative research is interested in understanding people's experiences in context (Maykut & Morehouse, 1994). The research interviews were thus all conducted in the actual workplace of the study participants. Data was collected by means of interviews by the researcher in an organisation at which she is currently employed. The interview subjects all work in an open-plan context and due to the shortage of private meeting areas, the interviews were all conducted in the office of the researcher. The researcher would have preferred a more neutral environment and was concerned about the impact that this would have on the interview dynamics. The researcher thus paid particular attention to seating arrangements (round table) and opening remarks in order to create an environment of comfort and ease.

The interviews were held over the official company lunch break and lunch was provided by the researcher as a way of expressing her thanks to the participants and also to create an informal atmosphere.

Content

The content of the interviews revolved around responses to the core questions explored in the interview schedule (Appendix B). When structuring the interview questions, primary consideration was that the questions be open-ended, thereby inviting the interviewee to participate in a conversation.

The researcher began the interview by thanking the interviewee for participating in the study. Participants were reminded of the purpose of the study and the nature of the study conducted. Interviewees were told what would be done with the results of the study; they were reminded about the confidentiality of the interview and they were then asked for their permission to audio-tape (record) the interview.

The interview questions were informed by the four (4) sources of self-efficacy beliefs postulated by Bandura (1997), namely: enactive mastery experiences; vicarious experiences; verbal or social persuasion and psychological arousal.

A number of open-ended questions were posed to elicit information about the potential impact of information sources not identified by Bandura (1997) and to explore the potential impact environmental factors on the choice of information referents.

Depending on the responses to the questions posed, the order of the questions varied from subject to subject. Some interviewees had difficulty answering those questions that attempted to directly elicit beliefs that they have about their own capabilities. When this happened, the interviewer went on to another question then came back to the previous question later in the interview and/or posed the question differently.

The interviewer also probed for specific examples or clarification in order to obtain rich insight and understanding of the view being expressed by each subject. Clarification and confirmation were also obtained periodically throughout the interview by the use of reflective summaries (Schamberger, 1997). Reflective summaries also gave the interviewer the opportunity to steer the discussion around desired themes. Silences were also tolerated as these pauses for thought gave the subject time to add information.

The interviewer also listened for other things like impression management, topic avoidance, minor misunderstanding and outright miscomprehension, taking in each case the necessary remedy to deal with the problem. For example, when the respondent deliberately avoided a question, the interviewer tried to approach the topic in a less threatening way.

Each taped interview was transcribed to produce a hard copy transcript recording each word during the interview. These transcripts provided the basis for analysis of the data.

The following section deals with the method of data analysis employed by the researcher.

2.4 DATA ANALYSIS AND INTERPRETATION

The raw data collected during qualitative research interviews was displayed, analysed and given meaning within a theoretical framework.

The process of qualitative data analysis is fundamentally a non-mathematical analytical procedure that involves examining the meaning of people's words and actions. Qualitative research findings are inductively derived from this data (Maykut & Morehouse, 1994).

The approach to data analysis in the present study can be termed as "interpretative-descriptive" (Belenky, 1992, as cited in Maykut & Morehouse, 1994). The researcher is primarily concerned with accurately describing what she has understood, and then reconstructing the data into a 'recognisable reality' for the people who have participated in the study (Maykut & Morehouse, 1994). This approach therefore requires some selection and interpretation of the data by the researcher.

The "interpretative-descriptive" approach is relevant for the present study as research findings are described and interpreted within the framework of the existing theory with a view to offering insight for organisations and individuals into the formation of self-efficacy beliefs.

2.4.1 Preparing the Data for Analysis

The audio-taped interviews were compiled into typed transcripts and analysed using the following pattern coding steps.

Coding

First level coding is a device for summarising segments of data. Codes are basically tags or labels for assigning units of meaning to the descriptive information. Pattern coding is a second level coding and is a way of grouping summarised segments of data into smaller sets of themes or constructs (Miles & Huberman, 1994).

In the present study as each transcript was read and re-read, a short code was written in the margin next to data that could be potentially classified with similar data from other respondents into a pattern or theme. The researcher created codes derived from the conceptual framework, research questions and key variables in the study. For example, a response that could be categorised in terms of Bandura's (1977) four information sources were coded as EME-Infos (enactive mastery experience), VSP-Infos (verbal or social) Persuasion and Vicarious Experiences (VE-Infos) and Psychological Arousal (PA-Infos). To achieve a coherent set of pattern codes sequential analysis was employed. Repeated readings of the interview transcripts enabled the researcher to condense data into coherent clusters (Miles & Huberman, 1994)

Data display

A data display is a visual format that represents information systematically to enable the researcher to draw valid conclusions (Miles & Huberman, 1994). Valid data analysis requires data displays that enable a viewing of the full data set in the same location (Maykut & Morehouse, 1994). The coherent display of the data enables the researcher to make comparisons and identify differences, patterns and themes.

Data displays rely on various principles of organisation depending on the nature of the data collected or the end purpose of the analysis. The organising principle may either be time, or role, or concept (Miles & Huberman, 1994). The present study employs a conceptually ordered display, which orders the data according to concept or variable (Miles & Huberman, 1994). Specifically, a conceptually clustered matrix is employed. A conceptually clustered matrix has its rows and columns arranged to bring together items that 'belong together' (Miles & Huberman, 1994) conceptually. In other words, the matrix display brings conceptual coherence to the data and as such it requires that the

researcher have some prior knowledge about the items that derive from theory or relate to the same overall theme (Miles & Huberman, 1994). This is the case in the present study. The interview guide was compiled with the intention of exploring themes grounded in established theory (namely the four sources of self-efficacy beliefs).

Setting and entering the display

In the present study, the matrix consists of columns, which reflect the patterns emerging from the subjects. In establishing how to label each column, the constant comparative method of analysing qualitative data is employed (Glaser & Strauss, 1967, as cited in Maykut & Morehouse 1994). In this method, as each new unit of meaning is selected for analysis, it is compared to all the other units of meaning and subsequently grouped (categorised). If there are no similar units of meaning, a new category is formed, thus allowing constant refinement or the re-labelling of categories (Goetz & Le Compte, 1981, as cited in Maykut & Morehouse, 1994). The rows, numbered 1-15 represent the subjects interviewed in the study. Each cell entry reflects a summary phrase or quote from the subject, which reflects its relation to the central theme or pattern column.

Drawing conclusions

Reading across the rows gives the researcher a brief profile of each subject and provides an initial test of the relationship between responses to different questions (Miles & Huberman 1994). Reading down the columns enables the researcher to make comparisons between subjects' responses. By analysing the information in the matrix, conceptual or theoretical coherence is established (Miles & Huberman, 1994). This is discussed in the next section where the interpretation of data is explained.

2.4.2 Generating Meaning

Once the raw data has been displayed, the primary objective of conducting research demands attention. That is, the data must be analysed and interpreted by the researcher to establish coherent meaning. This section details the approach used in the present study to achieve this objective.

Miles & Huberman (1994) offer a variety of methods or tactics available to the qualitative researcher that may be employed to interpret data. They range from the descriptive to

the explanatory and from concrete to more conceptual and abstract tactics (Miles & Huberman, 1994). A selection of these tactics are used in the present study and are detailed here starting with the concrete analysis of noting patterns in the data and culminating at the conceptual level of making theoretical coherence of the data.

Noting patterns or themes

In the present study, during the data display phase, clear patterns began to emerge from the data, in respect of both variables amongst categories of responses as well as processes within a certain context (Miles & Huberman, 1994). Distinct patterns emerged for example, with respect to task experiences and the impact on the formation of efficacy beliefs. Further patterns could easily be detected in terms of personal and organisational factors that facilitate or hinder performance accomplishments necessary to the formation of efficacy beliefs.

With respect to establishing patterns, the researcher sought added evidence of the same theme from different subjects whilst remaining open to disconfirming evidence, advice offered by Miles & Huberman (1994). In order to generate meaning from results, a researcher uses notions or concepts in order to explain facts that emerge from a study (van Maanen, 1979). It is in this application of theory to data that meaning of results is generated (van Maanen, 1979).

Clustering

Clustering is a general name given to the process of inductively forming categories and the sorting into categories of events, actors, processes or settings (Miles & Huberman, 1994). It is used to better understand a phenomenon by grouping and then conceptualising objects that have similar patterns (Miles & Huberman, 1994). It is the activity of conceptualising the grouped data that takes clustering one step further in analysis than simply noting patterns. In the present study, clusters were employed around events such as the performance appraisals [a discussion between manager and employee to evaluate performance]. Clustering was further employed to illustrate associations amongst processes such as motivational impact of performance feedback.

Counting

Counting, as a term, tends to be associated with quantitative research rather than qualitative. However, “a log of counting goes on in the background when judgements of qualities are being made” (Miles & Huberman 1994, p253). In the present study, when themes or patterns are identified, they are based on the fact that a number of responses or behaviours occurred consistently. Therefore, in this sense, counting is employed in order to report clear patterns of response from subjects. Whilst actual numbers are not always used, words such as ‘most’ or ‘all’ imply that counting as a verifying tactic is used.

Contrasts/comparisons

Drawing contrasts or comparisons between two sets of variables such as persons or events is a classic way of testing a conclusion (Miles & Huberman, 1994). On more than one occasion, contrasts are employed in the present study to offer reasons for differing responses from subjects.

Subsuming Particulars into the General

After clustering was employed to group variables together logically, analysis in the present study was taken one step further. Subsuming particulars into more general classes is a conceptual and theoretical activity (Miles & Huberman, 1994). By employing this technique, fewer classes of variables are obtained as a re-cursor to attaining theoretical coherence. However, it should be noted that in the present study, definitive evidence was obtained in a minority of cases, which disconfirmed general patterns of response. Such outlying evidence obviously could not be ignored and required independent analysis.

Making Conceptual/Theoretical Coherence

Finally, the process of analysing and interpreting data in the present study progressed to interpreting the results in light of existing theory in the field. In addition to verifying much of the existing theory in the field, further insights are also offered by the research as to other possible factors that may impact the efficacy information that people attend to, specifically in the context of the work organisation.

This section has detailed how the data collected in the present study was displayed for analysis and then subjected to specific tactics in order to elicit coherent meaning. In this regard, the logical steps as offered by Miles & Huberman (1994) were followed. These steps included establishing the discrete findings, relating findings to each other, naming the patterns and identifying a corresponding construct (Miles & Huberman, 1994). The following section explains how the concepts of validity and reliability were addressed in the present study and which quality standards were employed.

2.5 QUALITY

Those who subscribe to the positivist paradigm of research frequently question the quality of qualitative research. Qualitatively derived findings are often in doubt (Miles & Huberman, 1994).

As already stated, qualitative research emphasizes description, analysis and interpretation. Qualitative analysis attempts to be non-reductionistic and seeks to preserve wholeness and continuity in the phenomenon analysed (Burrell and Morgan, 1979). The researcher has to exceed the description to have a rational understanding of what is studied and thereby give the analysed phenomenon a theoretical basis (Hummelvoll & da Silva, 1998).

2.5.1 Quality of the Research Process

The research process itself must be as free as possible from interviewer bias in order to retain validity (Maykut & Morehouse, 1994).

Interviewer Bias

One issue central to the quality of gathering data during the research process is the sensitivity that the researchers must retain to themselves as an instrument of the research (Maykut & Morehouse, 1994). This is critical as the gathering of data through qualitative research interviews is a subjective experience. To aid this sensitivity, the process of 'epoche' is offered as a method by which the researcher suspends personal judgement of the data obtained during the phenomenological investigation in order to retain objectivity (Katz, 1987, as cited in Maykut & Morehouse, 1994).

Validity

Validity means soundness, weight, legitimacy and legally right. It designates that something is credible and reliable and that what is stated really is the case (Hummelvoll & da Silva, 1998). Fundamental to this issue is the concept of inter-subjective validation, that is, a common understanding exists between researcher and subject of what is being investigated. During the data collection phase of the current study, this was achieved by the interviewer constantly presenting her understanding back to the interviewee for confirmation. Thus, validation is part of the research process in the qualitative research interview (Hummelvoll & da Silva, 1998).

Validity of the research process is important in order for reliable conclusions to be drawn. To this end, the researcher in the present study was mindful of employing techniques during the data collection and analysis phases in order to increase confidence in findings.

Primarily these techniques included: checking for representativeness by interviewing a sample of typical cases, checking for researcher effects through awareness of 'epoche' (discussed earlier) and checking the meaning of outliers in the form of periodic exceptional responses to questions. Primary amongst the techniques employed to check if data obtained was valid, was the process of getting feedback from informants (van Maanen, 1979; Miles & Huberman, 1994).

If validity is accepted, as stated earlier, to be the granting of credibility and legitimacy to the existence of a phenomenon then the re-affirmation of data content by subjects lends validity to the data. In the present study, summarised findings from information obtained during the interviews were emailed back to respondents for comment. By acknowledging that the summary offered a true reflection of the life-world of a young engineer, validity is granted to the study.

2.5.2 Quality of the Results

Accepting that the process of collecting and recording data is sound does not necessarily lend credibility to the interpretation of data. Miles & Huberman (1994) offer five overlapping issues around the quality of results, all of which have been considered

in the present study, including objectivity, reliability, internal validity, external validity and application. Each of these is briefly explained further in respect of the present study.

Objectivity

Essentially, objectivity refers to the question of whether the research process and its results can be assumed to be relatively neutral and free from researcher biases (Miles & Huberman, 1994). The present study addresses this issue by ensuring that the methods and procedures followed are explicitly described, that conclusions are directly linked with displayed data and that the researcher has remained sensitive to any possible contamination of data through researcher biases or assumptions.

Reliability

Reliability refers to the degree of consistency with which instances are assigned to the same category by the same observer on different occasions (Hammersley, 1992, as cited in Silverman, 1993).

Positivists notions of reliability are based on the assumption of an unchanging world where inquiry could, quite logically, be replicated (Marshall & Rossman, 1989, as cited in Silverman, 1993). The positivist paradigm is in direct contrast to the qualitative/interpretative assumption that the social world is always changing therefore the concept of replication is in itself problematic (Marshall & Rossman, 1989, as cited in Silverman, 1993). Both the assumptions underlying these worldviews are problematic as it would rule out the possibility of any systematic research in the social world (Silverman, 1993).

The key issue in qualitative research is whether the research process is consistent and reasonably stable over time and whether replicated studies would yield comparable results (Miles & Huberman, 1994). It is incumbent on the researcher conducting qualitative research to document his/her procedure in order to adequately address the issue of reliability (Silverman, 1993). The researcher took care to ensure reliability by asking each respondent the same core questions and making sure that each respondent understood the questions in the same way. This enabled the researcher to code the answers to these questions with a fair degree of certainty. The tape recording of

interviews and the subsequent compilation of interview transcripts also enabled the researcher to apply rigorous data analysis procedures in a consistent manner. The data was collected and analysed by the researcher only, which eliminates multiple observer distortion.

Reliability can also refer to the procedures, methods or techniques pursued in the study (Schamberger, 1997). In the qualitative interview the interviewer him-/herself is also regarded as an important 'instrument of reliability' (Schamberger, 1997). Interviewer reliability refers to amongst others, the skills of sensitivity, listening, respect, openness, etc. The researcher in the present study took care to ensure that she listened on more than one level that is to the content of what is being said, the meaning which the interviewee attaches to it, what is communicated via body posture, voice quality, etc. The researcher also followed up on what the interviewee said via reflective summaries, asking questions for clarification and asking for further elaboration on what was being said. The interviewer also avoided asking leading questions, interruptions and reinforcing only some of the interviewee's responses. These effective listening skills enhanced the 'interviewer reliability' (Schamberger, 1997).

Validity

Validity refers to the extent to which findings are accurate and reflect the underlying purpose of the study (Schamberger, 1997). Validity refers to the way in which data generated through the research process answers the research questions. Miles & Huberman (1994) distinguish two key aspects of validity, namely internal validity and external validity.

Internal Validity

Internal validity refers to truth value (Miles & Huberman, 1994), which can be interpreted as the extent to which an account accurately represents the social phenomena to which it refers (Hammersley, 1990, as cited in Silverman, 1993). In the present study, the research findings are well linked to prior theory, and secondly the original subjects consider the conclusions accurate. Both these issues offer strong support for the internal validity of the current research. Taking one's findings back to the subjects being studied for verification makes the researcher even more confident of the validity of the

findings of this study. This form of validation, known as respondent validation, is one of the two forms of validation that is particularly appropriate to the logic of qualitative research (Silverman, 1993).

External Validity

External validity refers to the generalisation of the findings of a study from one context to another (Miles & Huberman, 1994). The fact that a number of findings are consistent with prior theory enhances the external validity of the research. However the impact of organisational culture on the choice of information referents may limit the transferability of the study from one context to another.

The research took care to ensure that the interview area was private and that subjects were assured of the anonymity and confidentiality of their responses at the outset. The value of openness and honesty in their responses was emphasized, as well as the value that the research findings would have for the division of those employees participating in the study (subjects were told that the organisation was keen on obtaining insight around what they could do differently to improve people management practices). On the other hand, the value of the researcher's current status in the organisation meant that the researcher was quickly and effectively able to establish rapport at the very beginning of the interview, as the researcher was known to all the subjects and had interacted with them in some way or the other prior to being interviewed.

The interviewer can affect the validity of the researcher through the effects that the researcher's status, sex or culture can have on the interviewee and the impact of the researcher's own values and attitudes on the interpretation of data and the meaning that is ascribed to it (Schamberger, 1997). The researcher in the present study was concerned about the effect that the researcher's current status (in the organisation in which the research took place) would have on the interview. The researcher is currently employed as the Human Resources Development Manager.

Finally, research studies are considered to have pragmatic validity if their findings lead to intelligent application and action (Miles & Huberman, 1994). It is hoped that the findings and recommendations offered by the present study will be of particular value to

organisations and human resource practitioners and that it will be used to inform people management and development practices.

2.6 SUMMARY

Qualitative methodology was employed in this research in order to give insight into the formation of efficacy beliefs from the perspective of individuals within a work environment. The qualitative nature of research analysis means that contextual findings are produced and not sweeping generalisations.

There are a number of potential information sources that an individual may attend to, that ultimately has meaning for or impact on self-efficacy beliefs, these include personal and situational. The researcher therefore strongly felt that qualitative research is ideally suited to the current study.

This chapter outlined the philosophy underlying this choice of methodology. Furthermore, this chapter recorded the sampling parameters, how the sample was obtained and the sampling ethics. A detailed description is provided of the instrumentation employed, the data collection and data analysis techniques and methods. A brief overview of the division from which the research sample was drawn is also provided.

Finally this chapter explains how issues pertaining to the quality of the research have been addressed. The following chapter records the findings of the study.

CHAPTER 3 – RESULTS

This chapter details the results obtained from this research. It is a thematic analysis of the responses given by fifteen research subjects to questions posed during in-depth interviews. Each theme and sub-theme is identified and briefly explained, followed by a summary of the relevant collective responses of the interviewees. Direct quotations from interviewees are offered in order to provide primary insight into the experiences of the research subjects and illuminate specific results. Selective quotations are provided, many of which reflect the views of more than one subject.

3.1 PERFORMANCE ACCOMPLISHMENTS

The first primary theme that emerged is labelled performance accomplishments. This theme reflects comments from the respondents around task experiences or performance successes that raised their beliefs of personal efficiency. The personal and situational factors that influence the formation of self-efficacy beliefs are dealt with. Personal and situational actors include (3.1.1.) conceptions of ability, performance goals (3.1.2), availability of task information (3.1.3), task complexity/diversity (3.1.4); and style of leadership (3.1.5).

Research results reveal that performance successes raise beliefs of personal efficacy. While some of the respondents attribute the source of their self-efficacy beliefs to their childhood upbringing, the majority of the respondents attribute their beliefs in their own abilities to their previous experiences of success

3.1.1 Conceptions of Ability

Thirteen of the interview subjects stated that beliefs about their capabilities have everything to do with the performance results they achieve. One respondent stated: *“I have a strong belief that I can get the job done. If something is given to me to do, a specific task, then I believe that I can do it more than 100%. This is the type of person I am. I never doubt my ability.”*

The majority of the respondents indicated a strong awareness of how beliefs of personal efficacy impact individual performance results. Results indicate that personal beliefs

influence various aspects of employees' performance, namely their choice of task activities, how long they will persist in their efforts until they achieve their performance goals, their willingness to learn and their confidence in their ability to solve problems.

Comments made by the respondents during the interview indicate that the majority have a high level of awareness at a cognitive level of the relationship between beliefs of personal efficacy and performance results that are achieved: *"the belief I always had in myself makes the job easier for me"*, *"...because I have a great deal of confidence in myself, I know I am going to be successful"*, *"I always believe that you can, if you think you can"*, and *"I think that my beliefs has everything to do with my performance"*.

Individuals also reported that their problems influenced their willingness to accept or seek out new tasks/challenges. A few (five) of the respondents indicated that they consciously sought out new tasks/challenges to build their beliefs of self-efficacy as solving a problem successfully gave them immediate feedback about their capabilities. These respondents commented that they enjoyed generating creative options to solve challenging problems.

The results also highlighted that employees' perceptions about their learning ability influenced their willingness to seek out new tasks and challenges in order to build their self-efficacy beliefs. This learning orientation was manifested in the following comments: *"My willingness to learn makes me feel capable of attacking tasks"*; *"I am willing to learn and I have the confidence that I will acquire the capabilities I need to tackle the task successfully;"* *"I am on the constant move of improving myself...it does not take a year to know everything, I am still learning all the time."*

Assertive communication appeared to be a common characteristic shared by those employees with a high learning orientation. One interviewee commented that when she is given new tasks, she finds out who has done it before and speaks to them. She stated: *"I am not afraid to ask in order to learn."* *"I always say there is always place for improvement in what you do and this gives me the scope to set training and developmental goals. I will never say that I am at the level where I say I know it all."*

A vast number of respondents strengthened their beliefs of efficacy through positive self-talk. Many indicated that what they said to themselves about their own capabilities when they approached a task at the outset influenced the results they achieved. One respondent stated: “...if I tell myself I can't this will build up a barrier to me attacking the task successfully, so I tell myself you have it, now go into the task and do it to the best of your abilities.”

Some admitted that at times when they are under pressure and facing a huge workload, their initial reaction may be “I can't handle it”, and then through self-talk their perception of the situation and their capabilities improve. “I tell myself that I can do it” or “I can make it”, said one respondent.

One research subject who feels that she does not possess strong beliefs about her own capabilities is aware of the negative impact of her de-evaluating self-talk. In her own words: “I know I should not tell myself I am stupid, I know I should be more positive about myself and my capabilities.”

Many respondents indicated that when they approached new tasks/challenges, their self-talk affected how they would approach their task “mentally” and the results they would achieve. The following comment by a research subject reflects this sentiment clearly: “...whatever new task comes before me, I always take it up with the same vigour and the same enthusiasm, and I don't let myself think that it's too difficult for me! Another stated: “If you tell yourself before the time, listen I am not able to do this, or I have not got the skills to actually do this, you've got a problem.”

3.1.2 Performance Goals

Analysis of the interview transcripts revealed that goal-setting practices influence the formation of self-efficacy beliefs. Goal -setting practices include, setting specific goals and targets to be achieved, and having clear performance standards against which to measure individual performance accomplishments and assess personal capabilities.

Twelve of the interviewees reported setting specific performance goals on a weekly and daily basis. One respondent stated: “I want to measure myself against the successes of

every day. I want to see the impact of my work." These twelve also reported setting personal standards against which to measure their performance. These standards provided a basis for not only judging their performance accomplishments, but also for judging their capabilities. Achieving specific performance goals and targets provided an indication of successful task performance, which in turn instilled a personal sense of self-efficacy.

Individuals reported that when they set their own performance goals, they are more motivated and energized to become actively involved in achieving them. It appears that there is a higher level of commitment to achieving goals they have set themselves.

Four of the research subjects not only set their own performance goals, but also set themselves the challenging goal of improving on their past performance. One respondent stated: *"I set myself timelines, for example, I want to send the stock through to Medspan in less than 48 hrs. I then keep records of the timelines I have achieved on a daily basis. My personal goal is to improve on this timeline daily. When I achieve the results I want, I feel good about my abilities and myself in general."* Another said: *"I want to know that I am doing better than I was doing before...that I actually have learnt something...so I set my own personal goals to achieve specific tasks by the end of the day."*

A further comment reflects the powerful impact of a personal sense of goal attainment on one's self-efficacy: *"When I see that I have done everything that I should do, I feel proud and positive about my capabilities and the days that I could not meet my goals, it is like a disappointment, I get cross with myself."*

Only three of the research subjects reported that they find value in having a performance contract in place. These individuals reported using the performance contract as a "yardstick" to measure and evaluate their own performance. Further comments by these respondents later in the interview revealed that the document is generally referred to just before and during the performance appraisal. It appears that none of the fifteen subjects interviewed used the performance contract on a weekly or daily basis to measure or evaluate their own performance.

The reasons given by interviewees as to why they do not attach any value to the performance contract are varied and reflected in the following general comments:

"The performance contract is not a comprehensive document, it does not detail everything that should be taken into account when my performance is evaluated;"

"The nature of the fruit industry does not lend itself to drawing up a specific performance contract that is valid for the whole year;" "I know what is expected of me, I don't need to have a performance contract in place".

It would appear from the comments made by 2 respondents that individuals only really find value in the performance contract when they enter a new job or start the performance year. *"I find it useful at the beginning of the year to set direction;" " At first the performance contract gave me some kind of guidance, but now I hardly look at it, except when it is appraisals, so to speak."*

Individual performances occur in the context of the work organisation. Responses from interview subjects indicate that the following situational factors affect performance accomplishments, which in turn impact the formation of self-efficacy beliefs namely: availability of task information, task diversity and style of leadership.

3.1.3 Availability of Task Information

Every single interview subject, without exception, wants to know how his or her tasks or activities impact the success of supply chain management. All the respondents indicated that understanding the strategic context of their operational activities would motivate them to perform and would make them feel more confident about their own abilities to produce the necessary results.

Research results indicate that employees not only act on their beliefs about what they can do, but also their beliefs about the likely outcomes of various actions. Employees commented that if they understand the contribution of their tasks or activities to the success of the business, this not only motivates them to persist until they have accomplished certain results, it also serves to strengthen their perceptions of their own efficacy.

Comments made by interview subjects indicate that an individual's understanding of the impact of his/her work activities on the team or company's performance, may influence the degree of impact that task accomplishments have on personal beliefs of self-efficacy. The following comment in particular reflects this: *" It is very stimulating to actually physically see how you add value to something, how the whole supply chain process has gained from the problem that you solved, this makes you determined and motivated to even improve on that situation. You feel energized and good about your abilities."*

Information that is made available to employees when tasks are delegated to them by their managers influence whether or not employees will have confidence in their abilities to succeed or whether they will be plagued by self-doubt. The importance of managers conveying strategic or bigger picture information that impact operational tasks or activities was emphasized by respondents and is reflected in the following statements: *" I want to understand why and how things are done. Then I can do my own thing, but I want to know the implications, why something is done, maybe I can still get to the same results but in another way"*.

Respondents in this study believe that by understanding the strategic context of an operational task, they would be more motivated to accomplish certain tasks and as a result the productivity of the work team would increase: *"Managers need to tell people why they have to perform a certain task. They will find that their team will be so much more productive;"* *"The more background I have, the better because then I know where a task is coming from"*. In particular employees commented that involvement in "conversations" where tasks or projects are initially conceptualised would make them feel more confident about their abilities to complete a task because this would help them to understand what is going on and it would help them to know where to find the information they would need to perform certain activities.

3.1.4 Task Complexity/Diversity

Twelve of the respondents reported that they find new and different challenges rewarding, and that the successful completion of new and different tasks is a key source

in the development of their self-efficacy beliefs: *" I am always looking for a challenge, a new problem to solve, because this gives me the confidence that I have what it takes."*

Mastering new or difficult tasks conveys efficacy information directly to employees. The process of delegating a new or complex task to employees also conveys efficacy information to employees. Two employees commented that by delegating new and challenging tasks, the manager was indicating that he/she believed the employee had the capabilities to perform/complete the task successfully. Through this action, managers could therefore indirectly influence the beliefs employees formed about their capabilities to succeed.

Comments made by the majority of the respondents suggest that employees' level of satisfaction with their own performance was strongly influenced by their exposure to new tasks/challenges *"I am enjoying my work at the moment...I'm learning something new. I don't think there was anytime to have anything that is least enjoyable, because everything is a learning curve for me;" "What I enjoy the most about my work, I would say that every day I've got different things, different scenario's happening. I don't like repetitive work."*

3.1.5 Style of Leadership

Without exception all of the respondents reported that the manager's style of leadership impacts their performance accomplishments, and the influence that successful tasks experiences have on the formation of efficacy beliefs.

In particular a more empowering style of leadership is reported to motivate and energize employees to accomplish performance tasks and thereby create those conditions that are necessary for the development of self-efficacy beliefs.

Comments from ten of the research subjects indicate that involvement in problem solving and decision-making influences the beliefs they form about their capabilities.

Five of the interviewees clearly stated that by involving employees in problem solving and decision-making a manager was indirectly communicating his/her belief in an

employee's capabilities: *"When you are discussing things and your own thoughts and ideas are listened to, are taken into consideration...it makes you feel that there is confidence in your abilities to put your own ideas forward. "I personally would like to be involved in making certain decisions. As a person, I can feel a bit more positive, and say for example, the next time something bigger comes along, and then I would have the confidence and the abilities to handle the situation. This is the way I see it, when my manager gives me the opportunity to think."*

All the respondents commented that managers should start looking at involving the staff in decision-making processes.

The level of decision-making authority that accompanies the delegation of tasks also appears to be a factor that may either hinder or facilitate performance accomplishments. Three of the research subjects reported that they are more motivated to accomplish certain tasks if they have the decision-making authority appropriate to their level and job context. These individuals report a high degree of frustration at not being able to complete a task fully because of limitations/restrictions preventing them from making certain task decisions. This frustration is amplified in the following respondent's comment: *"I have not got the authority to fix certain problems myself. That type of restriction is frustrating. I feel I should manage a process from start to completion. Sometimes I basically just hand over some queries, or some things, and go to other people and they sort it out. I don't actually think is fair. It doesn't stimulate me."* Another stated: *"It is frustrating when you identify a problem area and you want to make the change, but obviously you don't have the last say in it...problem solving areas, they would say, it doesn't fall under you, it's the managers...you're so restricted."*

These respondents reported that the lack of appropriate decision-making authority is limiting their value-add in the team. *"I am not in a position where I can make certain important decisions. I mean I might be giving or feeding him some information to make a decision, but I myself cannot make that decisions. And I think this is a bit of a negative side of the story! Irrespective of the responsibility that you have in your job, you still can't make that decisions or manage certain processes yourself."*

3.2 PERSUASIVE FEEDBACK

The second primary theme that emerged is labeled persuasive feedback. This theme reflects the perceptions of subjects regarding the impact that verbal persuasory efforts from managers have on the formation of self-efficacy beliefs.

The results reveal that feedback from managers, be it on task performance or personal capabilities impact the performance results those individuals achieved in the work organisation.

Seven of the sixteen research subjects reported that feedback received from managers impacted the beliefs they formed regarding their performance capabilities: *"My manager impacts the beliefs I have about myself a great deal"; "Positive feedback from my manager makes me feel a lot more capable of producing the goods"; "Definitely my manager influences the way I think about myself and my capabilities...he is always boosting my ego. It builds confidence, I think it does it for me."*

In particular verbal feedback from managers that expressed strong confidence in the employee's capabilities to solve particular performance problems mobilized employees into action and boosted their energy levels.

The motivational impact of performance feedback from managers was also reflected in the answers received from the fifteen research subjects. It appears that feedback from managers on task performance inspired and motivated employees to try harder to succeed in accomplishing new tasks or bigger challenges. Comments from the majority of the research subjects illustrate the motivational impact of verbal persuasory efforts for example: *"My manager's feedback about my performance on a particular task always inspired me to carry on and produce the results."*

Personal and/or situational factors appear to mediate the impact of a manager's feedback on the formation of self-efficacy beliefs. These factors include (3.2.1) degree of appraisal disparity, (3.2.2) affective states, (3.2.3) structuring of performance feedback

and (3.2.4) knowledge and credibility of verbal persuaders. These will be discussed in detail next.

3.2.1 Degree of Appraisal Disparity

The impact that performance feedback from significant others has on personal beliefs of efficacy depends on how discrepant the feedback is from the individual's own beliefs about their capabilities.

Employees seem to discount performance feedback that differs markedly from their own judgements of their current capabilities. Two of the respondents were explicit about the view that their own beliefs of self-efficacy negated the impact of any verbal feedback or persuasory efforts from their manager. One interviewee stated: *"My manager is always praising me for work well done and giving me positive feedback, but if I don't feel that I have achieved anything, it has no impact."* The second respondent said that she regarded positive verbal feedback received from her manager as a 'compliment'. The impact of her manager's feedback would depend on whether or not she feels she did a good job. She stated: *"If I don't feel I did a good job, even if he said I did a good job and I feel it wasn't my best, his feedback doesn't matter."* Comments throughout the interview indicated that these two respondents may have very high levels of perceived self-efficacy and it is their perceptions of their own efficacy that appears to moderate the impact of verbal feedback received from managers.

The cognitive processing of feedback received from managers is conveyed in the following statement: *"If your boss says you are worthless you don't have to agree to what is said...that is just an opinion. You don't have to take ownership of that opinion and you don't change your opinion of yourself."* Before verbal feedback has an impact on an individual's self-efficacy beliefs, it is cognitively processed and then meaning is assigned.

3.2.2 Affective States

Thirteen subjects reported receiving positive performance feedback from their managers. Two subjects reported not receiving any positive feedback from their managers at all. Three of the thirteen respondents reported that their affective state or

mood determines the impact that a manager's verbal feedback on task performance has on their perceptions of personal efficacy.

One respondent commented: *"Sometimes what my manager says impacts the way I view myself. It depends on how high my spirits are. I mean, if you feel down and somebody comes and says something...and you don't feel so good then obviously it is going to affect you negatively. But if you are happy the day and somebody says something to you it is not going to bother you, or affect you overall."*

Current research findings also reveal that feedback from managers on task performance and/or personal capabilities boosts employees' morale, thereby raising productivity, especially when the level of morale is generally low. The following statement from an interviewee reflects this: *"Some days you don't feel that good, and then your manager says something to you, then it just pushes the morale up and you feel more energetic to do things better, to take on more tasks."*

It is not clear from the responses received from interview subjects whether verbal feedback in this context directly impacts beliefs of personal efficacy or merely improves employees' motivational levels.

Only one respondent stated that feedback from her manager influenced her perceptions about her own capabilities because she does not have a 'wonderful self-image.'

3.2.3 Structuring of Performance Feedback

The majority of the respondents do not ascribe much value to feedback received during the formal performance review/appraisal. It would appear, from comments made by various respondents, that the tendency in these performance discussions is to focus on reaching agreement on the performance ratings, as opposed to qualitative feedback on the performance results that were achieved, and more importantly feedback on how the result was attained. Employees want managers to comment on the strategy or method they used to achieve a particular result and how they used or applied specific competencies (skills, knowledge and attitude, behaviour).

Responses from the majority of the research subjects also indicate that for feedback to have any positive impact on the beliefs that employees form about their own capabilities; it must be specific and detailed, supported by concrete examples.

A few of the respondents also indicated that they attach a lot of value to customer feedback, and as such would like the manager conducting the performance appraisal, to include specific customer feedback. Employees feel that not only would specific feedback positively impact their self-efficacy beliefs, it would reinforce the right behaviour (they would know what they are doing right and would therefore continue doing this) and they would also know what they could do to improve.

The perception is also conveyed that negative or de-evaluative feedback conveyed in the wrong way can evoke feelings of failure in employees.

The timing of performance feedback is also crucial. Responses indicate that performance feedback is most impactful when it is immediate and/or when employees are in a negative mood/state. One respondent stated: *"There are times when you feel like giving up, because things just don't seem okay, even though you know you are capable of doing that job, but certain issues make you want to give up, throw in the towel. Then positive feedback from your manager can make you feel good make you feel motivated to just go out there and put in that extra energy and effort."*

Some research subjects stated that they would prefer more frequent performance reviews with their managers. They believe that monthly discussions will help them to stay on track and keep them focused on important tasks.

3.2.4 Knowledge and Credibility of Verbal Persuaders

The perceived knowledge and credibility of the person providing performance feedback, influences the impact that verbal feedback has on personal beliefs of efficacy.

Four of the subjects reported that they do not attach any value to the feedback received from their managers because of their lack of understanding of what the task actually involves, their lack of genuine interest in what they actually do, and their lack of relevant

experience: *“Managers must show more interest in what their staff is doing...they must know what a task involves...they must know it took a lot of thinking and hard work.”*

In particular employees seem to assign more weighting to feedback received from individuals who have many years of fruit industry experience and are knowledgeable about the operational activities in the supply chain environment: *“When I get feedback from somebody that has been in the industry for 22 years, then I feel good. A compliment coming from someone who knows the trade and knows the fruit means a lot. You can't ask for anything better than that!”* Recipients of performance feedback assign weighting to verbal persuasory efforts on the basis of these factors.

The third primary theme that emerged from this research is labeled social comparison and deals with vicariously derived efficacy information.

3.3 SOCIAL COMPARATIVE INFORMATION

A third source of efficacy information derived from comparison with others, namely colleagues, in the work environment also emerged. The contribution of vicariously derived information to the formation of self-efficacy beliefs appears to have a lesser impact than information derived from performance accomplishments and performance feedback.

Only three of the respondents compared themselves with others in order to make judgements about their own capabilities. One respondent said watching others perform similar tasks, made her feel more confident in her own abilities to complete the task successfully. Another stated that by comparing his knowledge and experience to those of others, he feels more confident about his own capabilities. Through the realization that he has similar capabilities needed to perform particular tasks. *“I tend to compare myself to an equal who I know I would do their job better.”*

Six of the research subjects compared themselves with others in order to learn or improve on their own capabilities. It appears that these employees selected models in the immediate work environment that either possesses competencies or attributes that they aspire to. Comments made by these research subjects indicate that through

comparison with others, employees either learn new skills through observation or are motivated to learn the skills and knowledge needed to perform certain tasks: *"I compare myself with others in order to learn from them and get ideas on how to perform certain tasks;" "I'm looking at what others are doing and what I am actually doing. And I'm constantly asking why others are performing certain activities. I am picking up on why others are doing things so that I can learn a few skills"; "When I see people climbing the ladder, people getting promoted and things like that, I try to learn from them"; "I hear of the challenges my colleagues had and what they achieved. I think if it is actually working for you, it can work for me and then I try and work on things that will improve my performance as well."*

A few respondents also used social comparative information to boost their confidence to use other alternatives to achieve performance results. One respondent commented: *"When they do something, I sometimes think by myself, but I would have done it this way, or put this system in place to help me"*. It appears that seeing someone else use a strategy that has not worked raises the observer's confidence to use a different strategy.

Current research findings also indicate that an individual's psychological state or mood could create conditions or circumstances, which compel them to compare themselves with others. One respondent stated then when she is feeling down, she would compare herself with someone on an equal level to her, in order to feel better about her own abilities.

3.3.1 Working Experience

Research results reflect that an individual's years of working experience could influence whether or not individuals will be susceptible to vicariously derived efficacy information.

All of the research subjects have more than two years working experience and report a preference for making judgements of personal efficacy on the basis of task experience as opposed to social comparison with others. Employees seem to assign more weighting to efficacy information derived from personal task experiences and performance accomplishments.

Six respondents indicated that when they first started off in their careers, they compared themselves with others in the work environment, but now that they have gained experience and developed the skills and knowledge necessary to accomplish performance results, they rely on their own personal standards to make efficacy judgements. One subject remarked: *“I have a great deal of confidence in myself most probably because of the mistakes that I have made in the past. I have come to the point where I know the fruit business; I know what I am dealing with.”*

3.3.2 Personal Standards of Performance

Twelve of the interviewees stated that they do not compare their performance or abilities with that of others in the work environment. These employees have specific and clear standards that they use to make judgements about their performance and their capabilities. These standards are either documented in the performance contract, or simply exist in the minds of the individuals.

3.4 SUMMARY

This chapter records the results obtained in this research as derived from qualitative interviews conducted with fifteen employees drawn from the supply chain division of an international fruit exporter. The qualitative approach enabled the current research to focus on the personal experiences of these subjects and provide insight into the formation of self-efficacy beliefs from the perspective of employees operating in the work environment.

This chapter is a thematic representation of results, grouped into three primary themes. The first theme, performance accomplishments, includes task experiences that are efficacy building as well as those personal and situational factors that mediate the impact of performance accomplishments on self-efficacy beliefs.

The second core theme records the impact that persuasive feedback from managers has on the formation or strengthening of efficacy beliefs. Personal and situational factors that affect the impact that persuasive feedback has on personal beliefs of efficacy are also dealt with.

The third core theme, namely social comparative information, reflects the impact of vicariously derived information on beliefs of self-efficacy. The following chapter relates the results obtained to prior literature and research conducted in the field of self-efficacy.

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CHAPTER FOUR – DISCUSSION

This chapter provides a discussion of the results obtained in this study as interpreted in light of previous research and theory in this field. The theoretical context of this research is critical to understanding the meaning of the results obtained in this study. Specifically the results of this study require location within the context of self-efficacy theory, a derivative of Social Learning Theory (Bandura, 1977).

This research focused on identifying the sources of information that influence the formation of self-efficacy beliefs within an organisational context. Self-efficacy is seen as cognitive mechanism underlying behavioural change (Bandura, 1977 & 1997). Self-efficacy beliefs are formed through complex cognitive processes in which individuals weigh, integrate and evaluate information regarding their own capabilities (Bandura, 1982). These self-efficacy beliefs are based on four sources of information, namely: enactive mastery (performance experiences), verbal persuasion (persuasive feedback), vicarious experience (social comparative information), and emotional or psychological arousal (Bandura, 1997). Although information derived from these four sources strengthens feelings of competency, it is the cognitive appraisal and integration of the information that intimately determines self-efficacy (Bandura, 1997; Stajkovic & Luthans, 1998).

This chapter is structured around three core themes that emerged from the results of this study. The first theme 4.1 *Performance Experiences* addresses the influence of successful performance experiences on the formation of self-efficacy beliefs. The second theme 4.2 *Persuasive Feedback* focuses on the impact that feedback on performance and personal capabilities has on the development of personal beliefs of efficacy.

Finally, 4.3 *Social Comparative Information*, the third core theme discusses the influence that comparison with colleagues in the work environment has on the development of self-efficacy beliefs.

Each section of this chapter offers an integration of the research findings of the current study in light of previous research findings in the field and the theoretical framework in which the research is grounded.

The formation of self-efficacy beliefs is a complex process of self-persuasion that involves the cognitive processing of diverse sources of efficacy information that is conveyed enactively, vicariously, socially and psychologically (Bandura 1989). The research findings provide insight into information sources that strengthen beliefs of personal efficacy. The nature of this research limits the researchers from making any conclusive findings on the cognitive appraisal and integration of information that ultimately determines self-efficacy.

4.1 PERFORMANCE ACCOMPLISHMENTS

The first core theme labelled as performance accomplishments, has emerged as the primary information source that influences the formation and strengthening of self-efficacy beliefs. The current research findings clearly indicate that self-efficacy beliefs are strengthened when tasks are successfully performed. Previous research supports this finding as performance accomplishments have been shown to enhance self-efficacy more than any other information cue (Bandura, 1988 & 1997; Gist, 1987; Wood & Bandura, 1989).

Research results indicate that personal factors and situational factors, namely an individual's conception of ability (4.11.), performance goals (4.12), availability of task information (4.1.3), task complexity/diversity (4.1.4) and style of leadership (4.1.5) influences the impact that successful task experiences have on the development of self-efficacy beliefs.

Research findings reveal that factors in the organisational environment influence the impact that efficacy information derived from enactive mastery experiences or performance accomplishments have on the formation of self-efficacy beliefs.

These findings are supported by the results of previous research which clearly show that environmental factors influence on individuals evaluation of performance and the estimates of self-efficacy judgements (Bandura, 1997; Cervone, 2000; Stadjkovic & Luthans, 1998). An individual's evaluation of the influence of personal and situational factors on task outcomes influences whether beliefs of personal efficacy will be positively or negatively affected by performance accomplishments (Stadjkovic & Luthans, 1998).

4.1.1 Conceptions of Ability

The findings in this study show that individual conceptions of cognitive capabilities influence employees' task behaviour and how they interpret their performance experiences. In particular employees' conceptions of their problem solving and learning abilities influences their choice of task and how they interpret their performance experiences.

Research subjects who reported a high level of confidence in their problem-solving learning abilities, consciously sought out new and challenging tasks to build their beliefs of self-efficacy. These individuals are assertive and are not afraid to ask questions in order to learn.

Previous research shows that differing conceptions of intellectual ability influence task behaviour (Bandura & Dweck, 1988; Dweck & Elliot 1983 as cited in Bandura, 1988). Two major conceptions of ability have been identified: the first perspective views ability as an acquirable skill that can be continually enhanced, while the second perspective views ability as a more or less fixed capacity (Bandura, 1988). Individuals who see ability as an acquirable skill adopt learning goals and seek challenging tasks that provide opportunities to expand their competencies, while those individuals who regard ability as a fixed capacity tend to prefer tasks that minimize errors and enable them to demonstrate proficiency at the expense of learning new skills (Bandura, 1988). Comments such as the following clearly reflect the perspective that ability is an acquirable skill: *"I am willing to learn and I have the confidence that I will acquire the capabilities I need to tackle the task successfully."*

According to Bandura (1988), when faced with difficult or challenging tasks, individuals who view ability as an acquirable skill, take a task diagnostic focus on what is causing problems and how best to master the challenges. In contrast, those who regard ability as a fixed capacity take a self-diagnostic focus on personal deficiencies and possible adverse outcomes. This type of thinking undermines effective use of those capabilities needed to master the new challenges and diverts attention away from strategising on how best to master the new challenge to more self-evaluative perceptions (Bandura, 1988; Gist, 1987). Individuals who adopt a problem solving mode of thinking are not only better equipped to tackle new challenges, but also manage everyday life and achieve the performance results they set out to accomplish (Bandura, 1997).

Results of the current research support the notion that differing conceptions of ability influence how individuals will approach a task and the results they will achieve. In particular, many research subjects indicated that their conceptions of their own abilities influenced how they would approach a task the outset. Individuals who seem to view ability as an acquirable skill, used positive self-talk to strengthen their perceptions about their ability to develop the necessary skills to accomplish the task successfully. *"I tell myself that I can develop the skills I need to tackle the task successfully...my willingness to learn makes me feel capable of attacking the task"*.

Bandura's (1997) research shows that individuals tend to avoid tasks they believe exceed their capabilities and undertake those activities they judge themselves capable of handling. Judgements of general personal efficacy either facilitate or hinder active engagement in the very tasks that can build efficacy beliefs. Perceptions of efficacy that lead people to shun challenging tasks or activities ultimately retard the development of potential (Bandura, 1997).

Research subjects in the current study commented that what they said to themselves about their own capabilities influenced their energy levels on a task and how they coped with obstacles or problems they encountered. Phrases like *"I can handle it"*, *"I can do it"* and *"I can make it"* are frequently repeated. Bandura (1997) posits that judgements of efficacy determine how much effort people will expend and how long they will persist when facing adversity. This is primarily because of the differing outcomes that people

with different levels of efficacy envisage: highly efficacious individuals visualise success, while those who judge themselves as inefficacious are more inclined to visualise failure scenarios (Seligman, 1990; Wood & Bandura, 1989). This optimism is reflected in many comments from respondents in the current study similar to the following: *"...whatever new task comes before me, I always take it up with the same vigour and the same enthusiasm, and I don't let myself think that it's too difficult for me!"*

The more difficult the task, the greater the need for perseverant effort (Bandura, 1997). If some of the skills are lacking, efficacy sustained effort promotes their development, conversely doubts about one's efficacy may retard the development of those sub-skills upon which more complex performances depend (Bandura, 1997). Individuals' reactions to setbacks or failure depend on the strength of their beliefs in their capability to attain the necessary performance results. (Bandura, 1988). Individuals who doubt their capabilities are easily discouraged by failure, while those who are confident in their abilities to achieve their goals will increase their efforts when their performance falls short of goals they have set (Bandura, 1988; Brief & Aldag, 2001; Pajares, 2000).

A more recent study conducted by Bouffard-Bouchard (1990), reveal that perceived self-efficacy is related to task persistence, supporting Bandura's (1998) contention that self-efficacy expectations contain a motivational component that determines when and for how long people will engage in task behaviours to produce a desired outcome.

While many respondents in the current study attribute their efficacy beliefs to previous working experiences of successes, the majority attribute their beliefs to their childhood upbringing. Self-referent thought does have its origin in childhood (Bandura, 1997). A child's interaction with the environment provides the initial basis for developing a sense of causal efficacy. Repeated observation that environmental events occur with action enables a child to learn about contingent relations between actions and effects. As children experience success in controlling environment events, they develop a sense of causal efficacy. These early childhood efficacy experiences are central to the development of social and cognitive competence (Bandura, 1997).

4.1.2 Performance Goals

Current research findings indicate that setting and achieving specific goals builds beliefs of personal efficacy. The study also found that the specificity of goals, the level of personal involvement in setting goals, and feedback on task performance affected performance accomplishments, which in turn influenced the perceptions of personal efficacy.

A vast amount of previous research has verified the positive impact of goal setting on performance in organisational settings (Locke & Latham, 1984; Bandura, 1988; Locke, Shaw, Saari & Latham, 1981). Goals improve performance accomplishments through the effect it has on both motivation and self-efficacy (Bandura, 1988). Respondents in the current study reported that goals provide them with a sense of purpose and direction. When employees are clear about what they should accomplish they are motivated and energized to direct their efforts towards goal achievement. Previous research clearly demonstrates that if people are unclear about task outcomes, their motivation is low and their efforts are poorly directed (Latham & Lee, 1986; Locke et al, 1981).

Findings of the current study also indicate that success in achieving challenging goals enhances employees' beliefs in their capabilities. Respondents reported that goals provide a yardstick against which to judge their performance, accomplishments and capabilities. Goals provide standards against which individuals can measure their performance, without this people will have little basis for judging how well they are doing or for evaluating their capabilities (Bandura, 1988).

Research results of the current study reflect that performance goals have increased cognitive and motivational benefits when individuals are personally involved in setting them, when they are linked to specific targets and when they receive feedback on their performance progress. This finding is verified by previous research which indicated that for successful task experiences to result in the strengthening of self-efficacy beliefs, the following ingredients must be present: firstly there must be a standard against which actual performance can be measured, and secondly feedback on actual task performance must be available in a form that facilitates comparison and actual

performance against the desired standard of performance (Shea & Howell, 2000).

The need to have clear and specific standards to measure one's performance against came through clearly in comments made by respondents, for example: "*I want to measure myself against specific success indicators...I need to know how I am doing on a daily basis.*" Without feedback on how one is doing, people cannot evaluate their performance and without specific standards of performance, people cannot accurately evaluate whether or not their performance falls short of, or surpasses the goals (Bandura 1988; Bandura & Cervone, 1986). A study conducted by Bandura and Cervone (1983, as cited in Bandura, 1988) showed that people increased their motivation only when they had a clear goal and when they received feedback on progress. Goals without feedback, and feedback without goals had no effect on the motivation of participants in the study (Bandura, 1988).

A few of the research subjects in the current study also reported setting higher goal challenges. Previous research findings show that individuals who strongly believe in their capabilities set higher goal challenges, while those who doubt their capabilities to achieve success again, lower their goals (Bandura, 1988). While goals help to build people's belief in their capabilities, self-efficacy beliefs in turn influence the goals people set for themselves (Appelbaum, 1996). Previous research has indicated that achieving success in challenging tasks provides the strongest information for changing or enhancing beliefs of personal efficacy (Stadjkovic & Luthans, 1998)

Findings in the current study indicate that goals have increased motivational and cognitive benefits when employees set goals themselves or participate in setting task or performance goals.

The Supply Chain Division has a performance management system in place consisting of 3 components: 1) the performance contract (this is used to document agreed performance goals, targets and standards); 2) the performance appraisal (a discussion between the employee and his/her direct manager to evaluate an individual's performance against the performance contract; and 3) the personal development plan (records personal development goals, actions and target dates).

None of the research subjects reported using the performance contract to measure and evaluate their performance. Research findings reveal that the employees' managers had set the goals specified in the performance contract. Contrary to the organisation's performance management policy, managers had in fact drawn up the performance contract on the employees' behalf. The goals that employees reported as having motivational and cognitive benefits were those goals that employees had either set themselves or were involved in setting.

Normally, however, in an organisational context, employees must deal with pre-assigned goals that are related to productive activity or broader strategic priorities (Appelbaum, 1996). Research results indicate that these pre-assigned goals can still stimulate action and effort and build self-efficacy beliefs provided they are specific and employees understand the business rationale behind them. Assigned goals can also serve to establish normative expectations around which personal goals can evolve (Appelbaum, 1996).

Feedback on task performance is important in formulating efficacy perceptions (Bandura & Cervone, 1983, as cited in Gist, 2001). Previous research has shown that while favourable feedback has a positive effect on self-efficacy beliefs, unfavourable feedback tended to yield negative self-evaluations (Gist, 2001). It appears though that current levels of self-efficacy may moderate the effect that performance feedback has on efficacy perceptions.

According to Gist (1987), although enactive mastery experiences or repeated performance accomplishments has been shown to enhance self-efficacy more than information from other sources, some individuals may not expose themselves to opportunities for enactive mastery possibly due to fears or incapacity.

4.1.3 Availability of Task Information

The findings in this study indicate that understanding the contribution that successful task outcomes have on the success of the business, not only motivates employees to persist in the face of challenging obstacles, but also serves to strengthen efficacy

beliefs. This finding is clarified by previous research on the empirical relationship between self-efficacy and outcome expectancies (Bandura, 1984 & 1999; Pajares, 2000).

Individuals act on their beliefs about what they can do as well as their beliefs about the likely effects of various actions. Bandura (1997) strongly advocates that while there is a strong relationship between the two constructs, the motivating potential of outcome expectancies is partly governed by beliefs of personal capabilities. He states that individuals cannot conjure up outcomes without giving thought to the task at hand and evaluating how the task is being performed and unless "people believe by they can produce desired effect by their actions, they will have little incentive to act " (1997, p.3).

Research results of the current study indicate that understanding the impact of individual task activities on the team or company's performance may influence the degree of impact that task accomplishments have on personal beliefs of self-efficacy. This is reflected in comments like the following: *" I want know how I am contributing to my department's success, I want to know the implications of what I do...this makes me feel more positive about my tasks and myself in general."*

Information that is made available to employees when tasks are delegated to them by their managers influence whether or not employees will have confidence in their abilities to succeed or whether they will be plagued by self-doubt. Respondents also emphasized the importance of managers conveying strategic or bigger picture information that impact operational tasks or activities.

Information regarding specific task attributes, complexity, task environment, expected effort, physical, analytical, and psychological task demands as well as strategies required to influence performance should be strategically and appropriately communicated (Appelbaum, 1996). Strategic provision of this information influences the attribution processes that provide the basis for optimal self-efficacy judgements (Appelbaum, 1996).

4.1.4 Task Complexity/Diversity

The findings in this study reveal that the successful completion of new and challenging tasks provides strong efficacy information and also influences respondents' levels of job satisfaction. Bandura (1997) noted that the self-diagnostic value of performance successes for judging personal efficacy would depend on the perceived difficulty of a task. Succeeding at an easy task provides little efficacy information, while mastery of difficult tasks conveys strong information for raising beliefs in personal capabilities.

Individuals make inferences about the complexity and difficulty of the task, not only from the features of the task, but also from the perceived similarity to other activities (Bandura, 1997). According to Bandura (1997), these variations in the assessment of task difficulty will yield different appraisals of self-efficacy from performance attainments.

Research findings also suggest that full mastery of a complex task is not needed to enhance efficacy beliefs, even small performance improvements can build beliefs in ones capabilities (Stadjkovic & Luthans, 1998). Stadjkovic and Luthans (1998) argue that an individual's level of performance on a task does not necessarily equate with the level of self-efficacy. Small performance improvements on tasks that are highly complex can produce large increases in self-efficacy if the individual evaluates personal and situational factors in a way that confirms the perception that they have the necessary capabilities to succeed. The estimation of personal efficacy is a cognitive process involving more factors than just executed action (Stadjkovic & Luthans, 1998) and is affected by how many non-ability factors are perceived to impact performance accomplishments (Bandura, 1997).

4.1.5 Style Of Leadership

Without exception, all of the fifteen respondents in this study reported that their manager's leadership style influenced the perceptions they formed about their own capabilities to accomplish specific performance results. Specifically research findings show that a more empowering style of leadership motivated and energized employees to achieve the necessary performance results and created conditions that are more conducive to the development of self-efficacy beliefs. In particular employee

involvement in problem solving, decision-making and goal setting influenced the formation of efficacy beliefs

Employee involvement in problem solving and decision-making facilitated the formation of self-efficacy beliefs both directly and indirectly. Respondents felt that by enabling employees to participate in problem solving and decision-making, a manager was indirectly communicating a belief in the employee's capabilities: *"When you are asked for your input and your ideas are listened to, you feel that there is confidence in your abilities"*. Secondly, the opportunity for participation motivated employees to achieve levels of performance that directly enhanced efficacy beliefs.

Research findings of the current study also reflect that an individual's decision-making authority can either hinder or facilitate performance accomplishments. A number of the respondents in this study reported that they are more motivated to perform if they have the decision-making authority appropriate to their job level and job content. For example one respondent stated: *"If I am given the authority to make decisions I know I am capable of making, this will make me feel more positive and more motivated to do my best."*

It would appear from the findings in this study that leaders who have an empowering leadership style not only provided employees with the opportunity to meaningfully influence operational and strategic decisions, but also delegated work related decision-making authority to employees.

Of relevance to this study is the concept of empowerment. Academic literature classifies empowerment into three broad categories: the *structural approach*, the *motivational approach* and the *leadership approach* (Menon, 2001). In the *structural approach* empowerment is defined as the granting of power and decision-making authority. Empowering employees would involve moving decision-making authority down the organisational hierarchy, thereby affording employees the opportunity to significantly affect organisational outcomes. To put it simply, in this approach, employees are giving the authority to do his or her job.

In the *motivational approach*, empowerment is conceptualised as psychologically enabling (Gonger & Kanungo, 1988, as cited in Menon, 2001). Empowerment is defined as a process of enhancing feelings of self-efficacy through creating conditions that are conducive to fostering feelings of personal power and removing those practices that foster powerlessness.

In the *leadership approach*, the emphasis is on the energising aspect of empowerment (Menon, 2001). This approach posits that visionary leadership energizes and empowers followers to act by providing an exciting, positive vision of the future. Employees are inspired to participate in the process of transforming the organisation (Yukl, 1989, as cited in Menon, 2001). Burke (1986, as cited in Menon, 2001) suggests that stimulating employees through intellectually exciting ideas and encouraging them to accept difficult challenges are all empowerment strategies. Menon (2001) concludes that these three approaches to empowerment provide a comprehensive account of the empowerment phenomenon. He posits that empowering acts such as delegation produce changes in employees' perceptions about their self-efficacy, and their feeling sense of control over the work environment.

In the current study "empowering acts" such as participative goal setting, employee involvement in problem-solving and decision-making and delegating the appropriate level of authority and decision-making appear to strengthen either directly beliefs of personal efficacy and/or create conditions that facilitate performance accomplishments that enhance efficacy beliefs.

4.2 PERSUASIVE FEEDBACK

The second core theme that emerged from this research was labelled persuasive feedback as it deals with verbal feedback from managers others that strengthen individuals' perceptions of their performance capabilities.

Collectively, findings obtained from the current study suggest that feedback from managers, be it on task performance or personal capabilities impacted the beliefs that employees formed about their capabilities to achieve performance results. Feedback

from managers also appears to have a strong motivational impact. In particular verbal feedback from managers that conveyed strong confidence in the employee's capabilities to solve performance problems and overcome potential obstacles mobilized employees into action and boosted their energy levels. Performance feedback thus appears to have both a motivational and cognitive impact.

Verbal persuasion from someone an employee trusts and sees as competent, strengthens efficacy perceptions by enhancing peoples beliefs that they possess the capabilities to achieve the performance level they desire (Bandura, 1997; Wood & Bandura, 1989). According to Bandura (1997) verbal persuasion alone may be limited in its power to produce enduring increases in self-efficacy perceptions, but it can facilitate personal change if the feedback or positive appraisal is within realistic bounds.

The research findings of the current study are verified by Bandura's (1997) contention that persuasive feedback mobilises greater effort and leads people to try harder to succeed.

A number of personal and situational factors appear to mediate the impact of persuasive feedback on the formation of efficacy beliefs. Personal factors that emerged in this study are (4.2.1) degree of appraisal disparity and (4.2.2.) affective states. Situational factors that influence efficacy perceptions include (4.2.3.) the structuring of performance feedback, and (4.2.4.) knowledge and credibility of verbal persuaders.

4.2.1 Degree of Appraisal Disparity

Research results obtained in the current study reveal that the impact that persuasive feedback from managers/others has on perceptions of efficacy depends on how discrepant the feedback is from the individual's own beliefs about their capabilities. Respondents in this study seem to discount feedback that differs markedly from their own efficacy judgements.

Persuasory efficacy attributions have their greatest impact on those people who already have some reason to believe that they can produce the desired task outcomes through their actions (Chambliss & Murray, 1979, as cited in Bandura, 1997). Bandura (1997)

advocates that raising unrealistic beliefs of personal capabilities will discredit the persuaders and further undermine an individuals' belief in their capabilities.

Nease, Mudgett and Quinones (1999) found that existing perceptions of self-efficacy influenced reactions to feedback and subsequent performance. These recent findings support Bandura's (1986) earlier postulation that individuals with strong perceptions of their own self-efficacy tend to increase their effort more than those with weaker efficacy perceptions.

Previous research on self-efficacy found that individuals' self-efficacy perceptions would strengthen when faced with repeated positive feedback, however research findings of a more recent study suggest that when faced with repeated positive feedback, individuals with lower self-efficacy perceptions began to judge the feedback as less accurate, in line with their initial efficacy judgements (Nease et al, 1999). The study found that both high and low self-efficacy individuals interpret feedback in ways that are protective of their initial self-efficacy perceptions (Nease et al, 1999). These findings therefore suggest that persuasive feedback enhances perceptions of efficacy if individuals already have a positive efficacy belief, while it has limited or no impact on individuals who have lower efficacy perceptions.

Nease et al (1999) findings are in line with Self-Verification Theory, which posits that people prefer to be viewed in a manner that is consistent with their self-concept even when their self-concept is largely negative. Research conducted on Self-Verification Theory found that individuals tend to regard feedback they receive about themselves as valid only when that feedback fits with their initial self-concepts (Markus, 1997; Swam, 1987, as cited in Nease et al, 1999). Individuals tend to attribute positive performance feedback that is in line with their self-concepts to personal characteristics, while disconfirmatory feedback is attributed to the source of the feedback (Nease et al, 1999).

The results of the current study tend to support these findings. Two respondents remarked: *"My manager is always praising me and giving me positive feedback, but if I don't feel that I have achieved anything, it has no impact;"* *"If I don't feel I did a good job, my manager's feedback doesn't matter."* Findings of this study therefore also suggest

that individuals actually perceive and shape their interpretations to feedback received from managers in accordance with the beliefs they already possess.

4.2.2 Affective States

Research results of the current study suggest that an individual's affective state or mood appears to influence the impact that persuasive feedback from managers has on task performance. Affective mood or state does however appear to have a far lesser influence than degree of appraisal disparity.

Responses from participants in this study reveal that an employee's mood state would influence the impact that a manager's feedback would have on levels of morale. Findings suggest that when the level of morale is generally low, positive feedback from managers on task performance and/or personal capabilities boosts general feelings of morale and energy levels. It is not clear from the findings in this study whether persuasive feedback in this context directly strengthens efficacy perceptions or merely improves motivational levels.

Previous research reveals that mood states can bias attention, affect how events are interpreted and can influence evaluative judgements through its perceived informative value (Bower, 1981, 1983; Eich, 1995; Isen, 1987; Schwartz & Clare, 1988, as cited in Bandura, 1997).

4.2.3 Structuring of Performance Feedback

The majority of the respondents in this study commented that for feedback to have any positive impact on the beliefs that employees form about their own capability it must be specific and detailed, supported by concrete examples. Employees who participated in the current study would like managers to include feedback from customers in their performance appraisals.

Bandura (1997) noted that the structuring or framing of performance feedback could either undermine a person's sense of self-efficacy or boost it. Evaluative feedback that highlights personal capabilities can positively affect the appraisals of personal efficacy, while performance feedback that focuses solely on effort produces a lower sense of self-

efficacy (Schunk, 1982, as cited in Bandura, 1997). Performance that is attributed solely to effort conveys the message that one's capabilities are limited and requires arduous work (Bandura, 1997). Indirect performance appraisals that are marked in ambiguous feedback also tend to lower recipients' judgements of their capability. According to Bandura (1997), managers should frame feedback as performance achievements, highlighting personal capabilities and refrain from framing feedback in terms of shortfalls from performance goals as this can diminish perceptions of personal efficacy because the deficiencies are highlighted (Bandura, 1997).

Employees in the current study also conveyed the feeling that negative feedback conveyed in the wrong way can evoke feelings of failure. Destructive feedback that criticises the performer rather than providing helpful guidelines on how to improve performance undermines self-efficacy beliefs, while constructive developmental feedback often bolsters a sense of personal efficacy (Baron, 1988, as cited in Bandura, 1997); Brief & Aldag, 2001). Jourden (1991, as cited in Bandura, 1997) corroborated these effects in a study in which people received feedback of organisational attainments either as percentage progress towards a desired standard or as a percentage shortfall. Feedback in terms of performance gains enhanced efficacy beliefs, and subsequent performance accomplishments, while feedback focusing on how far one still has to go, detracted from a sense of personal effort and accomplishment.

Previous research results do however indicate that existing self-efficacy perceptions mediate the impact of performance feedback. Individuals with high self-efficacy beliefs, who received repeated negative feedback on their performance exhibited decreased acceptance of the feedback, whereas those individuals with low levels of self-efficacy did not change in their acceptance of the feedback. (Nease et al, 1999) Negative feedback given to individuals with a lower sense of efficacy tends to lower efficacy beliefs further and negatively affect future performance accomplishments (Nease et al, 1999).

Of relevance to this study is Shea and Howells' (1999) findings regarding the interactive effects of two different leadership styles (charismatic and non-charismatic) and three types of task feedback (internal, external and no feedback). Charismatic leadership behaviours include articulating ideological goals, communicating high performance

expectations, expressing confidence in follower's capabilities, displaying a personal sense of self-confidence and acting as a role model for followers to emulate (House, 1977; House & Shamir, 1993, as cited in Shea & Howell, 1999).

Empirical evidence has provided substantial support for the proposition that charismatic leadership produces higher performance in individuals, business units and operations than non-charismatic leadership (Avolio, Waldman & Einstein, 1988; Barling et al, 1996. Bass & Yammarino, 1991; Hater & Bass, 1988; Howell & Avolio, 1993; Howell & Frost, 1989; Keller 1992; Lowe, Kroek & Sivasubramaniam, 1996, as cited in Shea & Howell, 1999). While conclusive empirical evidence is lacking, research findings suggest that charismatic leaders strengthens individuals self-efficacy beliefs by communicating high performance expectations and expressing confidence in followers abilities to contribute to the organisation's mission (Shamir et al, 1993, as cited in Shea & Howell, 1999).

Research conducted by Shea and Howell (1999) show that individuals exposed to a more charismatic leadership style performed equally well, regardless of task feedback conditions, while the performance quality of individuals exposed to non-charismatic leadership dropped substantially when no task feedback was provided. Shea and Howell (1999) posit that a possible explanation is that charismatic leaders inspire followers through emotional appeals to sustain task-related effort. By clarifying and communicating a broader purpose and ideological goals, charismatic leaders increase followers' perceptions of the meaning and importance of their task assignments thereby motivating them to perform.

While previous research findings show the differential impacts of various types of task feedback on performance, Shea & Howells (1999) results reflect no significant difference in performance quality due to internally or externally generated task feedback. Results of the current study show that as long as the content and timing of task feedback is constant, the actual source of the task feedback makes no significant difference to an individuals' subsequent performance.

The moderating effect of the timing of performance feedback also surfaced in the current study. Performance feedback from managers has more impact when it is immediate and

when employees are in a negative mood state. Research subjects indicated a strong desire to have more frequent performance appraisals / discussions with their managers.

4.2.4 Knowledge and Credibility of Verbal Persuaders

Findings in this study indicate that employees' perceptions of the knowledge and credibility of the person providing the performance feedback influences the impact that any verbal feedback has on personal beliefs of efficacy. Research subjects attach value to the feedback received from managers, who in their view, understand what the task actually involves, have years of experience in the fruit industry and are knowledgeable about the operational activities in the supply chain environment.

This finding is verified by previous research findings, which revealed that persuasory appraisals are influenced by who the persuaders are, their credibility and how knowledgeable they are about the nature of the task activities (Grundall & Foddy, 1981; Webster & Sobleszek, 1974; as cited in Bandura, 1997). Individuals are more inclined to trust evaluations of their capabilities by those people who are themselves skilled in the activities. The greater the perceived credibility and expertness of the persuaders, the more likely that persuasive feedback will lead to changes in judgements of personal efficacy (Bandura, 1997).

Bandura (1997) advocates that verbal persuaders must be knowledgeable about the realities the performer has to manage for the feedback to have a positive impact on the recipient. Bandura (1997) argues that even the judgements of otherwise credible persuaders may be discounted on the grounds that they do not fully understand the task demands.

Persuasory efficacy appraisals, involve more than fleeting pep talks, it involves providing specific feedback about personal capabilities in ways that cultivate efficacy beliefs (Bandura, 1997). For feedback to have powerful efficacy-promoting influences, verbal persuaders should in addition to providing feedback, structure activities for employees in ways that bring success and avoid placing them prematurely in situations where they are likely to experience repeated failure (Bandura, 1997).

The impact of persuasive feedback on efficacy beliefs is still far weaker than efficacy information derived from performance accomplishments (Bandura 1997; Brief & Aldag, 2001). Individuals are still more inclined to trust their own personal evaluations and efficacy judgements, as they believe they know themselves and their situations better than what others do (Bandura, 1997). Authentic evidence of what it takes to succeed is required to produce significant and enduring changes in self-efficacy beliefs (Bandura, 1997).

4.3 SOCIAL COMPARATIVE INFORMATION

The third and final core theme that emerged is labelled social comparison information. This theme refers to vicariously derived information that influences the formation or strengthening of efficacy beliefs.

Only three of the subjects in the current study reported comparing themselves with others in order to make judgements about their own capabilities. These subjects reported that observing others perform similar tasks successfully made them feel more confident about their own capabilities. These findings are confirmed by Bandura's (1997) proposition that seeing other people similar to oneself performing tasks successfully, raises efficacy beliefs in the observer and strengthens personal convictions about their own abilities to master comparable activities. Individuals persuade themselves that if others similar to them in their environment can master a task, they should also be able to achieve at least some minimal level of competency (Appelbaum, 1996; Bandura, 1997; Brief & Aldag, 2001).

Results of the current study show that in comparison to efficacy information derived from performance accomplishments and verbal persuaders, information derived through comparison with colleagues in the environment appeared to have a far lesser impact on the efficacy beliefs of employees. Previous research results indicate that efficacy appraisals are only partly influenced by vicarious experiences or social comparison with others (Bandura, 1997; Stajkovic & Luthans, 1998).

Six of the research subjects in the current study reported comparing themselves with others in order to learn or improve on their capabilities. These employees selected models in the work environment that possess competencies or attributes they aspire to. This finding is verified by previous research results which revealed that social models provide more than a social standard against which to appraise personal capabilities, they also transmit knowledge skills and coping strategies to observers (Bandura, 1997; Wood & Bandura, 1989). In this way social modelling also guides and motivates the development of skills and performance strategies. Social modelling facilitated the development of competencies needed for successful task performance, thereby setting in motion those processes that strengthen efficacy perceptions. Indirectly, comparison with others motivated by learning or development needs, enhances perceptions of self-efficacy.

Models in the environment model efficacy by word as well as by action (Bandura, 1997). Models who express confidence and determination in the face of difficulties can instil a sense of efficacy and perseverance in others (Zimmerman & Ringle, 1981, as cited in Bandura, 1997). Social Cognitive Theory provides a body of evidence about how people can turn to proficient models for knowledge, effective strategies, behavioural competencies and socio-cognitive skills (Bandura, 1986; Rosenthal & Zimmerman, 1978, as cited in Bandura, 1997). Specifically with more complex activities, verbalized thinking skills that guide actions are more informative than modelled actions.

Individuals will not however perform everything they learn and will be influenced by three major types of incentives: direct, vicarious and self produced (Bandura, 1997). People will be more likely to model observed behaviour if it results in valued outcomes than if it has unrewarded or punitive effects (Bandura, 1997).

Verbal modelling of cognitive skills enhances beliefs of personal efficacy and promotes cognitive skill development (Schunk, 1981; Schunk & Gunn, 1985; Schunk & Henson, 1985, as cited in Bandura, 1997).

Two factors mediated the influence of efficacy information derived through comparison with others, namely *working experience* (4.3.1) and *personal standards* (4.3.2.)

4.3.1 Working Experience

The finding in this research is that an individual's years of working experience influences their susceptibility to vicariously derived information.

Six of the respondents reported comparing themselves with others in the work environment when they first started off in their careers, but now that they have gained relevant working experience, successful task experiences are used to inform efficacy judgements.

This finding is verified by previous research results (Bandura, 1997), which revealed that individuals who lacked direct knowledge of their own capabilities tend to rely more heavily on vicarious experiences (Takata & Takata, 1976, as cited in Bandura, 1997).

Bandura (1997) does however argue that although working experience does affect the influence of vicariously derived information, this does not mean that a great deal of prior experience necessarily nullifies the potential influence of social modelling. Mixed experiences of performance success and failure can instil self-doubts and modelling that conveys effective coping strategies can boost perceptions of self-efficacy (Bandura, 1997).

Bandura (1997) advocates that even those individuals who have very strong efficacy beliefs will revise their efficacy beliefs if models convey even better ways of doing things. Bandura's (1997) proposition clarifies the research finding of the present study, which revealed that some subjects used social comparative information to boost their confidence to use other alternative strategies to achieve performance results.

Vicarious experiences can also enhance the impact of direct task experiences, in particular modelling influences that convince people of their own efficacy weaken the impact of direct failure experiences and motivate individuals' to sustain effort in the face of repeated failure (Browne & Inouye, 1978; Weinberg et al, 1979, as cited in Bandura, 1997).

4.3.2 Personal Standards of Performance

Research subjects, who reported not using social comparisons to form beliefs about their abilities, appear to have clear and specific performance standards that they use to make judgements about their performance and their capabilities. These individuals compare their performance results with their personal "yardstick" or standards of success. Actual performance outcomes that come close to targeted performance outcomes positively influences efficacy beliefs.

Previous research findings suggest that self-modelling may produce a general increase in self-efficacy (Bandura, 1997). Creer and Miklich (1970, as cited in Bandura, 1997) found that observing oneself perform successfully improves targeted performance, thereby facilitating efficacy enhancing processes. It is not clear however whether the observation referred to in this context refers to indirect observation (for example videotaped performances) or real-time observation during the performance of task activities.

The current research findings could be explained by Ruble and Frey (1991, as cited in Bandura, 1997) who provides evidence that social comparison information may vary during different phases of skill and knowledge acquisition. Self-comparison is prominent when skills are being developed, whereas when skills are formed, people tend to turn to social standards to appraise and validate their capabilities.

The research results of the current study indicate that efficacy information derived through social comparison with others is not prominent. Successful performance experiences and persuasive feedback from managers has a greater influence on self-efficacy beliefs than social comparative information. Brief and Aldag (2001) found that self-efficacy beliefs induced by vicarious experiences are weaker than those derived from performance accomplishments as vicarious sources of information are seen as less dependable than one's own performance experiences.

4.4 SUMMARY

This chapter offers an integrated discussion and interpretation of the results of the study within the framework of previous research and grounded theory.

Three core themes have been identified, namely performance experiences, persuasive feedback, and social comparative information. All of these themes relate to the primary information sources Bandura (1997) identified from which people derive efficacy information.

In the first theme, performance experiences, efficacy beliefs are strengthened through direct task experiences. A number of personal and situational factors mediate the impact of successful task experiences on efficacy beliefs. These factors include conceptions of ability, performance goals, availability of task information, task complexity or diversity and style of leadership. Findings are verified by previous research results (Bandura, 1997; Cervone, 2000; Stajkovic & Luthans, 1998).

The second theme, persuasive feedback, dealt with verbal feedback from managers. Feedback on task performance or individual capabilities, strengthens efficacy perceptions, however to a lesser extent than efficacy information derived from performance accomplishments. The congruence between an individual's own beliefs about their capabilities and the feedback received, mediated the impact on self-efficacy beliefs. The knowledge and credibility of the verbal persuaders is a key factor influencing an individuals' acceptance of the feedback. The way in which performance feedback is structured and the timing of the feedback, also affected the impact on the formation of self-efficacy beliefs. These findings are verified by a number of researchers, including Appelbaum (1996), Brief & Aldag (2001), and Wood and Bandura, (2001).

The third core theme discussed in this chapter refers to the impact of information derived through comparison with colleagues in the work environment. Few subjects reported comparing themselves with others in order to make judgements about personal capabilities. Comparisons with others were to a large extent, motivated by learning needs. Years of working experience appeared to be the primary factor influencing an individual's susceptibility to vicariously derived efficacy information. This finding is verified by Bandura's (1997) research.

In summary the results of the current study support Bandura's (1997) proposition that efficacy information is derived primarily through performance accomplishments. The impact of verbal feedback from managers on efficacy judgements depends largely on the strength of existing efficacy beliefs.

The following chapter offers recommendations to the organisation, namely line managers, human resource practitioners and employees themselves, on strategies to facilitate the enhancement of self-efficacy beliefs.

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CHAPTER FIVE – APPLICATION, RECOMMENDATIONS AND CONCLUSION

Previous research has yielded strong empirical evidence on the relationship between work performance and self-efficacy (Bandura, 1997; Brief & Aldag, 2001; Cervone, 2000; Gist, 1987; Wood & Bandura, 1989). Perceptions of efficacy influence the goals people set for themselves, the commitment they have to meeting various challenges, how much effort they will expend on tasks, how long they will persevere and how resilient they will be when faced with adverse situations, failures or setbacks (Bandura, 1988; 1997; 1999). Specifically self-efficacy has been found to significantly predict future performance (Bandura, 1997) and to be a better predictor of future performance than past behaviour (Gist, 1987).

Human resource management practices have reflected the application of goal setting theory and rewards in order to enhance motivation and performance. In the author's own organisational context (in which the research took place) the strong emphasis on performance management systems and incentivised remuneration and reward schemes mirrors this trend. Despite the impressive empirical evidence supporting the self-efficacy and work performance relationship, the organisational application of self-efficacy has been neglected.

The current research focuses on the formation of self-efficacy beliefs within an organisational context. Specifically the information sources that are relevant to the forming of individual efficacy perceptions of those employees occupying skilled, professional roles in the supply chain division of an international fruit exporter. The author believes that understanding the formation of self-efficacy beliefs can provide insight into the organisational factors that may encourage or inhibit the formation of efficacy beliefs. This understanding can be used to inform human resource management practices that will develop and strengthen self-efficacy beliefs, which in turn can lead to improved employee performance and ultimately improved organisational performance.

The results of this study are offered in the form of a thematic analysis based on the responses obtained from a sample of subjects during in-depth qualitative interviews.

Research findings reveal that employee's self-efficacy beliefs are enhanced in three ways: (a) performance accomplishments (successfully achieving performance/task outcomes), (b) persuasive feedback (encouragement, positive performance feedback, and reassurance) and (c) social comparative information (observing others perform tasks).

Performance accomplishments emerged as the most influential source of efficacy information, followed by persuasive feedback and lastly social comparative information. Bandura (1997) verifies this finding and advocates that enactive mastery experiences (performance accomplishments) are the most influential source because they provide the most authentic evidence of what it takes to succeed. Enactive mastery or performance accomplishments produce stronger and more generalised efficacy beliefs than any other source of efficacy information (Bandura, 1997).

The research findings of the present study reveal distinct areas where actions could be taken to facilitate the strengthening of efficacy beliefs within an organisational context. This chapter offers recommendations with respect to possible actions that could be taken by organisational managers, human resource practitioners and individual employees (5.1).

Furthermore this chapter records limitations of the present study (5.2), suggestions are offered for future research in this field (5.3) and a conclusion of this chapter is also provided (5.4)

5.1 RECOMMENDATIONS

Based on the results obtained in the current study, this section offers recommendations to line managers, human resource practitioners and individual employees.

5.1.1 Performance Goals

Research findings reveal that goals are highly effective motivators and efficacy builders. For goals to have both a motivational and cognitive benefit, they should be definite, specific and sufficiently challenging.

Performance goals should clearly define the outcome that should be achieved. Goals should be linked to relevant and specific targets, so that there are clear guides for performance and for evaluating how one is doing.

The level at which goals are set also affect employees' motivation and the formation of efficacy beliefs. Success at accomplishing tasks that are sufficiently challenging raises employee's beliefs that they have what it takes to succeed. Managers should however ensure that goals are not set too high, as failure can reduce the motivation to continue. Goals should be sufficiently challenging, yet attainable. More complex goals could be broken down into a series of sub-goals, as the successful accomplishment of each sub-goal will motivate employees to move on to the next.

The motivational effect of goals is reduced if employees are not personally committed to achieving them. Employees should play an active role in setting goals and determining performance targets. If it is an organisational requirement that goals are documented and captured in a performance contract, managers must refrain from drawing up the document on the employee's behalf. Ideally the employee should have a goal setting discussion with his/her direct manager, the outcome of which should be agreed performance goals and targets. The employee should be left with the responsibility of drawing up the performance contract and handing the document back to the manager for review and sign-off.

Succeeding at new or diverse tasks and performance goals provides strong efficacy information. A stretch goal could be included in an employee's performance contract. This stretch goal should be viewed as a learning goal. By setting a learning goal, the message is communicated that the requisite skills and knowledge still need to be learned and as such it will focus the individual's attention on strategy development (Winters & Latham, 1996).

Setting a learning goal is an effective technique for increasing the cognitive capabilities of an individual who has not yet learned how to perform a task. This is especially recommended in the case of new employees joining a division or organisation. During the new employees induction period, which usually lasts three-to-six months, depending

on the complexity of the job, managers/employers should put a learning contract in place rather than a performance contract.

Employees should take personal ownership and responsibility for managing their own performance. They should ensure that their performance goals are challenging and that their performance contract includes at least one learning or stretch goal. Achieving challenging goals that employees themselves have set, provides strong efficacy information.

5.1.2 Performance Appraisals

Performance appraisals are typically part of the formal performance management process in organisations. The desired outcome of this discussion is performance improvement, yet many employees do not attach value to the feedback they receive during the performance appraisal.

Performance feedback, specifically feedback that focuses on personal capabilities that affect performance outcomes is particularly valuable in strengthening beliefs. For performance feedback to have efficacy value it must be specific, supported by concrete examples and positively worded. Managers must ensure that they are well prepared for performance appraisal discussions. An effort should also be made to include specific customer feedback. Feedback on task performance should focus on what has been achieved and progress that has been made, as opposed to what has not been achieved or the shortfall from performance goals. Ideas should be solicited from the employee on how to improve performance or close any performance gap.

In order to facilitate efficacy-enhancing feedback, managers should supplement outcome measures with process measures and behavioural measurements. By focusing only on outcome measures (such as quantity, quality, time and costs) a manager may fail to take into account and/or comment on behaviours that affected performance outcomes.

A multi-method approach to performance evaluation is advised. Consideration should be given to including customer feedback (internal and external customers) and peer

feedback where appropriate. Performance evaluations that rely solely on the managers subjective evaluation may lack credibility and will therefore not have the desired impact on motivation and/or performance.

In addition to conveying positive performance appraisals, managers should structure performance activities for employees in ways that will facilitate successful experiences and avoid assigning tasks where they are likely to experience repeated failure (Bandura, 1997). To do this effectively they must know the strengths and weaknesses of each employee and tailor tasks that will enable the employee to apply his/her strengths and develop potential capabilities.

5.1.3 Selection and Assessment

Researches results indicate that efficacy information derived from sources in the organisation strengthen efficacy beliefs or lower perceptions of self-efficacy further.

Respondents, who conveyed strong beliefs in their capabilities to achieve performance results, attribute the source of their efficacy beliefs primarily to childhood experiences and their years of working experience. Employees either enter the organisation with strong efficacy beliefs stemming from childhood experiences or build efficacy beliefs through repeated successful task experiences. Changing employees' efficacy beliefs from negative to more positive ones is not a process that happens overnight, repeated successful performance accomplishments are needed.

The assessment of self-efficacy should be included as a component of the selection process in order to identify those individuals with high or moderate levels of self-efficacy, who are most likely to be high performers in the future. The availability of psychological and other assessment tools makes this a feasible and viable option to explore. Interviewers or assessors should be equipped with the knowledge of characteristics defining highly efficacious individuals. These characteristics could be assessed via a structured interview, questions, psychological assessments and other assessment tools.

Individuals within the organisation should take full advantage of any development assessments that are offered by the human resources department. These assessments

can be used to identify current perceptions of their own efficacy and beliefs that may be negatively impacting their performance and progression. Following this up with a personal development and growth plan is advised in order to take positive action on any potential development areas.

5.1.4 Skills Training and Development

Guided mastery modelling techniques should be applied to skills training and development practices (Appelbaum, 1996): individuals learn best when they fully observe models demonstrate key elements of the skills required to succeed at particular tasks, secondly when they perform the skill with the support of the trainer or coach, and thirdly when they practice applying the skill in the actual work setting with support and guidance until mastery is achieved.

A few respondents reported using social comparative information to learn new skills or task strategies. In particular managers could transfer cognitive skills to employees by verbalising their thought processes as they model actions. Verbalising thinking skills for the tasks that are more complex are generally more informative than the modelled actions themselves (Bandura, 1997).

All skills training programmes, whether it is performance management, relationship building or customer service should assume a super-ordinate goal of enhancing self-efficacy beliefs. This can be achieved with the use of guided mastery modelling.

Development programmes such as career management or personal development planning should also aim to facilitate the development of self-efficacy beliefs. Exercises should be structured into these programmes that will enable employees to identify personal beliefs that may be limiting their career progress or development. Employees should also be taught how to replace negative beliefs with more positive enabling beliefs through a process of affirmations and positive self-talk.

Personal development plans should emphasize on-job training and development opportunities. Development methodologies should not be limited to training courses, workshops and/or formal studies, as these will not necessarily enhance efficacy beliefs.

Organisations are also advised to include training and development programmes that equip employees with self-motivational and self-management capabilities; capabilities that will enable employees to set goals in the right way, respond to pressure or failure in the right way and identify and change limiting personal beliefs.

Employees are strongly encouraged to enrol in training and development programmes that will equip them with the skills that are necessary to the attainment of high self-efficacy beliefs. Before drawing up career and personal development plans, employees should, with the assistance of a career counsellor, identify those beliefs that may inhibit them from setting certain goals and ultimately limit their career progression. These beliefs should be identified, and employees should equip themselves with personal empowerment strategies that will enable them to replace these beliefs with more positive affirming beliefs.

5.1.5 Task Information

Information relevant to delegated tasks should be strategically and appropriately communicated. Managers should firstly communicate specific performance expectations and express confidence in the employee's capabilities to achieve the required performance results (this positive appraisal must be supported by relevant and concrete examples).

Secondly, managers should communicate the strategic importance of the task, how the task impacts other performance outcomes and/or the overall success of the division or organisation. If employees understand the value of their contribution within the broader organisational context they will be more motivated to achieve the required performance results and will thereby set in motion the efficacy enhancing process.

In particular emphasis should be placed on communicating strategic information, the business reason motivating the need to perform certain tasks; and the cause and effect relationship between activities in the supply chain.

Managers should communicate information regarding specific task attributes, complexity, task environment and the way in which these factors can be controlled (Appelbaum, 1996). If managers are not providing sufficient task information, employees should ask. Equipping themselves with assertiveness skills and learning empowerment strategies will make this task easier for employees.

5.2 LIMITATIONS OF THE STUDY

This research has a number of limitations, which need to be recognised when consideration is given to the results obtained. These limitations pertain to the methodology of the study, the nature of the sample and the transferability of the results to other organisations.

5.2.1 Methodology

A primary limitation of the study is the fact that the data was collected at one point in time. The interviews took place over a period of one month and the implications of this is that research respondents would only offer a snapshot view of their work life. Self-efficacy is a dynamic construct, which changes over time as individuals are exposed to new information and experiences (Gist & Mitchell, 1992, as cited in Ballantine & Nunns, 1998). The dynamic nature of the construct indicates the need for a longitudinal study to explore causal relationships and give a clear understanding of the dynamic processes involved in the formation of efficacy beliefs.

This research explored the sources of information that influence the formation of efficacy beliefs. It must however be noted that it is the cognitive appraisal and integration of the information derived from these sources that ultimately determines self-efficacy (Bandura, 1982). The nature of the present study precludes the assessment of the cognitive appraisal of diverse efficacy information and as such can only provide insight on those sources of information that strengthen feelings of competency.

5.2.2 Sample

The sample employed in this study consisted of 15 individuals occupying skilled, professional roles within the Supply Chain division of an international fruit exporter.

Although specific invitations were extended to the employees in the sample, participation was voluntary. Two employees did not respond to the initial invitation, neither to the electronically mailed second invitation. The voluntary nature of the participation suggests that the sample may have yielded biased responses.

5.2.3 Transferability

All the employees in the sample were drawn from one division, within one organisation. Self-efficacy beliefs are sensitive to context, and it is likely that self-perceptions of competence take on different meanings and are weighed differently at different times in an individual's life (Wigfield & Karpathian, 1991, as cited in Pajares, 2000).

The contextual nature of self-efficacy is therefore an important consideration in the transferability of results to other organisations.

Despite this limitation, the results of this study confirm Bandura's (1997) postulation that efficacy information is derived from performance accomplishments (enactive mastery experiences), persuasive feedback (verbal persuasion) and social comparative information (vicarious experiences). The results may therefore be of value to other organisations.

5.2.4 Interview Bias

The interviewer, a permanent employee of the organisation from which the sample was drawn, is well known to the respondents. The interviewer occupies a management position in the Human Resources Department and is responsible for all training and development initiatives in the organisation. The interviewer's role could have influenced the way in which research subjects responded to the interview questions.

5.2.5 Language

The interview questions were posed in English and not necessarily the home language of the research respondents, thus increasing the chance of subjects misunderstanding the questions.

Two subjects responded to the questions in their home language, Afrikaans, thus similarly the interviewer may have misinterpreted the responses.

Questions were however not translated since this might have led to distorted meaning in translation (Bluen, 1986, as cited in Ballantine & Nunns, 1998).

5.3 FURTHER RESEARCH

The formation of self-efficacy beliefs is a dynamic process in which individuals weigh, integrate and evaluate information regarding their own capabilities (Bandura, 1997). The cognitive processing of efficacy information involves two functions: (a) the first involves the types of information that people attend to, which the present study explored; (b) the second relates to the combination rules or heuristics that people use to weigh and integrate efficacy information from different sources.

Further research is needed to identify the specific cognitive factors involved in the formation of efficacy perceptions. Specifically researchers also need to examine how information from the different sources are integrated in the formation of efficiency perceptions.

Most of the self-efficacy research, including the present study, has relied on self-reported accounts rather than investigator – observed accounts. Future research should assess the sources of efficacy information through direct observation rather than rely on self-reports.

Many researchers still lean towards quantitative investigations; quantifiable efforts should be complemented by qualitative studies aimed at exploring how efficacy beliefs are developed. This will yield more rich, descriptive insights into the development of self-efficacy beliefs.

5.4 CONCLUSION

The understanding of the self-efficacy construct and its application in organisational psychology is relevant for the management of human behaviour in organisations, given the context within which organisations operate and the resultant demands that are being placed on employees. South African organisations in particular are faced with increased demands to perform more efficiently and effectively, now that it has become part of the global market place.

Typical organisational responses to global challenges have included downsizing, business process reengineering, total quality management and more extensive use of information technology; largely overlooked are tactics that will enable organisations to utilise employees to their full capacity and upgrade the role that employees can play in meeting competitive demands (Stadjkovic & Luthans, 1998). The need for employees to take on new and unfamiliar roles and tasks is an initial implication of all such organisational change (Appelbaum, 1996) and these changes require employees who have strong perceptions of their own efficacy and who are capable of dealing with adverse situations in the accomplishment of performance goals.

Previous research provides strong support for a significant relationship between self-efficacy and employee performance (Bandura, 1997). The results of the current study reveal that information sources within the organisational environment influence the formation of efficacy beliefs. Specifically successful tasks experiences or performance accomplishments, persuasive feedback from employees' managers and social comparative information derived from colleagues, have a significant influence on the strengthening of efficacy perceptions.

Research findings of the current study also reveal that organisational factors influence the development of efficacy judgements. These factors include goal setting practices, availability of task information, task complexity and diversity, style of leadership, the structuring of performance feedback and the perceived knowledge and credibility of verbal persuaders.

This chapter offers recommendations to organisations, specifically line managers and human resource practitioners, on proactive strategies to facilitate the development or strengthening of efficacy beliefs. It is proposed that both line managers and human resources practitioners accept joint responsibility for implementing practical actions that will lead to the enhancement of efficacy judgements.

Beliefs that both individuals and groups of people hold about their capabilities powerfully influence the way they behave and the performance results they will achieve (Bandura, 1997). An increased focus on the enhancement of employees' self-efficacy beliefs will result in the investment in human resource management practices that will bring about improved employee performance, and ultimately improved organisational performance.

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REQUEST FOR PERMISSION TO CONDUCT THE STUDY

Dear Dr Dawie

Some Background:

I am currently registered for the Masters Degree in Organisational Psychology at the University of Cape Town. I have completed two years of coursework and have commenced work on my dissertation, entitled: "An Exploratory Study of the Information Referents Used By Employees in the Formation of Self-Efficacy Beliefs". Self-Efficacy is a psychological construct defined by Albert Bandura (a guru in cognitive psychology; Professor at Stanford University) as "the belief in one's capabilities to organise and execute courses of action required to produce given attainments". (The Investment in Excellence Course is based on the self-efficacy construct and was designed with Bandura's input)

A vast body of research has demonstrated that the beliefs that people hold about their capabilities powerfully influences the way they behave and the performance results they will achieve. Self-efficacy is a key differentiator between high performers and low/average performers. According to Bandura, self-efficacy beliefs are derived from four principle sources of information: enactive mastery experiences [performance accomplishments], vicarious experiences [comparisons of own behaviour to modelled behaviour of significant others]; verbal persuasion [feedback from significant others] and affective states [emotional state/levels].

I want to gain further insight into the information sources that are used in forming self-efficacy beliefs, specifically in an organisational context [previous research in this context lacking]. In doing so I specifically want to establish the impact of the performance appraisal, ad hoc line management performance feedback; role modelling, peer feedback and experiences in training/development activities. I am also hoping to gain insight into those organisational factors that may encourage or inhibit the formation of self-efficacy beliefs.

My Request

I would like to conduct my research within the Supply Chain Department. I am doing a qualitative study and would need to interview between 15 and 20 employees. The interview would last approximately one hour and would be conducted at a time suitable to the interviewee [either during lunch time or after work hours]. If I am granted permission to do the research, I will contact selected employees directly to gain their consent & proceed with the interview. Results will be fed back to the SCM management team and interviewees.

The benefit for Supply Chain is that the insight gained through the research could be used to inform the SCM management practices that will develop & strengthen self-efficacy beliefs, which in turn can lead to the improved performance of employees.

PLEASE LET ME KNOW IF YOU NEED ADDITIONAL INFORMATION.

Regards
Wendy Anyster

INTERVIEW SCHEDULE

- 1] General introductory questions:
 - What is the most rewarding/fulfilling aspect of your current job?
 - What is the least enjoyable/most frustrating aspect of your work right now?
 - What do you see as your key strengths?
 - What do you think are your weaknesses/development areas?
- 2] How do you feel about your performance right now?
- 3] Describe a situation that you experienced in the past, which had a positive impact on your performance
- 4] In what way do you think/feel that beliefs that you have about yourself impacts your ability to perform?
- 6] Describe one/two situations that you experienced which strengthened your beliefs about your own capabilities to achieve your goals?
- 7] How do you go about making judgements about your own capabilities?
 - a] What factors do you consider?
 - b] What "yardstick" do you use
 - c] What process do you follow?
- 8] Do you have a performance contract in place?
 - a] what purpose does the performance contract serve for you personally?
 - b] what value do you get from having a performance contract in place?
- 9] Have you had a performance appraisal/review discussion with your manager?
 - a] what value do you get from the performance discussion?
 - b] what impact, if any, does the discussion have on your performance?
- 10] Describe the organisational culture and climate in your division. How do you feel about it?
- 11] What in the work environment has an impact on the beliefs that you form about yourself/your capabilities?
 - a] - Positive?
 - b] Negative?
- 12] How would you describe the management/leadership style in the department?
- 13] What impact does your manager have on your performance?

- 14] How does your manager influence the beliefs that you form about yourself/ your own capabilities?
- 15] Do you receive feedback on your performance?
- a] From whom; How often?
 - b] How do you feel when you receive positive feedback?
 - c] How do you feel or react when you receive “negative” feedback
 - d] Describe the impact that feedback from others has on the beliefs that you form about your own capabilities
- 16] All of us experience times/occasions when we’ve doubted our own abilities. Describe an occasion when you’ve gone through a time like this.
- a] How did you react?
 - b] What is the conversation that you have with yourself when you experience a setback?
 - b] What do you do?
- 17] Do you find that you compare yourself with others in the work environment?
- a] Who...?
 - b] Why...?
 - c] How...?
- 18] In what way does comparison with others impact the beliefs that you have about your own capabilities?
- 19] When you would like to feel more confident about your own abilities, what do you do?
- 20] Explore feelings about the interview/discussion

OVERVIEW OF THE SUPPLY CHAIN DIVISION

Following is a brief overview of the division, from which the research sample was drawn. The purpose of this division is outlined, an employee profile is sketched and the key people management and development initiatives currently being implemented are be outlined.

The core purpose of the Supply Chain division is to improve returns to the company's suppliers by optimising the planning and execution of logistical and other value added processes. The broad service delivery of the Supply Chain division covers the movement of product delivered to inland ports by the supplier to the final destination as identified by the external customer. The service can be broken down into five key components:

- Development of a logistical strategy that balances risk, capacity constraints and product requirements;
- Determining the best combination of supply chain activities in order to maximise the value add of the logistical process;
- Planning, monitoring and controlling the execution of product flow through the supply chain;
- Contracting and performance management of service providers along the supply chain [including transport, depots, ports, shipping];
- Inventory control and recovery of shrinkage;
- Maintaining time and temperature protocols in the value chain.

The division employs approximately sixty [60] employees in a number of semi-skilled, and skilled professional positions. These include vessel planners, vessel schedulers, administrative controllers, transport schedulers, cost chain controllers, documentation controllers, logistics information co-ordinators, capacity planners and protocol monitors. The semi- skilled positions, which are in the minority, require individuals to apply basic operational skills to a range of familiar problems. These individuals perform tasks under general supervision and quality control. Typical tasks are routine, requiring automatic

decision-making in the execution of activities-individuals make a choice from a range of routine responses, using limited judgement. The majority of the positions are categorised as skilled professional, and require a range of well-developed skills and relevant theoretical knowledge to a range of familiar and unfamiliar contexts. Tasks require the application of a number of procedures requiring choice and interpretation. Individuals occupying these positions perform activities under minimal supervision with some responsibility for the outputs of others.

The Supply Chain Division, as it currently stands, was formed in 2000, following the integration of all departments involved in logistics, distribution, cost-chain management, inventory and information management relating to the movement of fruit through the supply chain. The formation of this division took place in the context of a company wide restructuring from a functionally driven organisation, to a more process driven, product-focussed structure. The change in organisational structure was a response to a change in organisational strategy and as such was accompanied by significant changes to operational processes, business systems, performance requirements and job responsibilities. Employees were therefore directly affected by these changes in terms of their roles, responsibilities and competency requirements. The Supply Chain division thus underwent a complete organisational transformation. The changes to strategy, structure, processes, and systems required changes to organisational culture, and as culture can only be changed through the behaviour of people, the demands on employees have been, and still are enormous.

It is within the fore-mentioned context that a number of people management and development activities have been implemented. The supply chain division is intent on establishing a strong customer service culture and all people management and development activities are geared at bringing about the necessary culture change. Emphasis has been placed on the implementation of a customer driven performance management system that is linked to an incentivised reward system. A key objective of the performance management system is to translate the strategic goals into measurable operational/performance goals and targets at all levels in the organisation namely; company level, divisional level, departmental or team level, and individual employee level.

The performance management system has three (3) components: the performance contract, performance review/appraisal and personal development plan. A “performance agreement” meeting is held between an individual employee and his/her direct manager to discuss and agree upon specific individual performance goals, measures and targets for the coming year. These are recorded in the employee’s performance contract. Progress in achieving performance goals and targets is reviewed mid-year during an interim performance review and the performance contract is revised to incorporate changes to performance goals and targets. A final performance appraisal is conducted at the end of the annual performance cycle and is intended to appraise the employee’s performance, identify improvement areas and plan future goals. This is a joint interactive session where the employee as well as his/her direct manager must give input. The overall performance rating assigned in the final performance appraisal is used to determine performance related annual salary increases and bonuses.

The human resources department is accountable for ensuring the successful implementation of the performance management system and spend time on capacity building interventions to equip both line managers and employees to manage the process and use the tools effectively. Performance management audits are also conducted in order to evaluate the application of the system and the quality of the performance management process. The organisation believes that people will be motivated to perform if they are involved in setting their own performance, if they can see how their individual performance goals are linked to broader, company strategic objectives, and if their remuneration and other monetary rewards are directly linked to the achievement of specific performance results.

Emphasis has also been placed on implementing training and development activities that will equip employees to deliver the necessary performance results. Training workshops or courses are provided internally to staff and are linked to various strategic, operational and/or performance requirements [strategic requirements refer to those competencies that will enable the achievement of the company purpose, vision and strategic objectives; operational requirements refer to those competencies that are needed to perform specific job tasks and activities linked to operational business

processes; and performance requirements refer to those competencies that are important to the delivery of individual performance goals and targets]. Organisational time and money is invested in operational skills training, behavioural training and other career development activities in the belief that it will raise employees' productivity and performance levels.

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