INDICATORS FOR SALES SUCCESS OF A PERSONAL FINANCIAL ADVISOR IN THE BANCASSURANCE ENVIRONMENT

by

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submitted in partial fulfilment of the requirements
for the degree of

MASTER'S IN COMMERCE

in the subject of

INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

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STATEMENT

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work, and that I have not previously – in its entirety or in part – submitted it at any university for any degree.

……. ……

Signature Date

ACKNOWLEDGEMENTS

I want to thank the following, who made this important milestone in my life possible:

- The Good Lord – Your-ever present and effervescent love sustained me.
- My dearest wife Anja, for her support, Maarten and Jemma for the sanity they bring.
- My parents who supported this endeavour into my second love and will live to see it through.
- Prof Pierre Joubert, my supervisor, for his personal interest, guidance, patience and his articulate understanding of the dynamics of the research process.
- Prof Hennie Kriek, for the professional rigor he installs in the conducting of validation studies, for the use of the instruments and for his support.
- Tina Joubert, for her support with the statistical analyses, for a project that seemed never ending.
- The organisation that continues to provide me with the opportunities to push the boundaries, for the access to data and resources to do this study.
- The Department of Industrial and Organisational Psychology at UNISA, for the Master's programme that I attended and the ensuing friendships I established.
- Darren Graham and Fiona Donald, who oversaw the internship programme.
- Prof Marie de Beer, as joint supervisor, and Prof Sanet Coetzee, for their help in enabling me to publish an article during my Honours year.
- Igno van Niekerk, Cheryl Puttick and Quinton Douman, for their new generation leadership.
- Christopher Luck, for his example on how to leverage from relationships into business.
- Johan Minnie, for his strategic vision many moons ago.
- Elsa Crous, for the meticulous editing of the document

ABSTRACT

This study investigated the relationships between personality, ability, biographical and sociographical factors on the one hand and criterion measures of job-relevant behaviour on the other. The aim of the study was to isolate success-predicting factors for a Personal Financial Advisor in a South African Bancassurance operation. The research was done by means of a criterion-related concurrent validation study. The sample consisted of 185 advisors with two years or longer sales tenure in the position. Predictor variables included measurement on a 20-dimension competency model, an ability assessment and 17 biographical and sociographical variables related to the position. Criterion variables included production figures and managerial ratings on advisor performance. Meaningful predictors for the success of financial advisors were found for personality, ability, biographical and sociographical variables, and the results confirmed the hypothesised competency model derived from a job analysis.

KEY TERMS

Ability, insurance, biographical factors, Bancassurance, competence, competency, concurrent validation, job analysis, personal financial advisor, personality factors, sociographical factors, sales, validity.

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Chapter 1: Scientific orientation to the research

1.1 INTRODUCTION

The background and relevance of the research is discussed in *Chapter 1* as well as the role of validity and utility in the recruitment and selection of Personal Financial Advisors[1] (PFA) amidst a global shortage of these skills. The chapter frames the context of the advisor in the Bancassurance distribution environment. It also builds a case for the theoretical scrutiny of factors that determine advisor success and crystallises the research problem and aims of the study.

From the perspective of the individual, sales success in the assurance[2] industry is determined by a multitude of factors inherent to, or acquired by an intermediary. This descriptive, explanatory and exploratory[3] study (Wright & Fowler, 1986) investigates the relationships between personality, ability, biographical and sociographical factors on the one hand (predictor variables) and criterion measures of job-relevant behaviour on the other, in order to isolate success-predicting factors for advisors in a South African Bancassurance[4] operation. This validity research is done by means of a *criterion-related*

[1] Both *advisor* and *adviser* are acceptable terms. In this study *advisor* is used. Other terms used are *planners, consultants* or *PFAs (personal financial advisors).*

[2].The traditional view is that *Assurance* refers to long-term insurance (life cover and disability cover) and *Insurance* to short-term insurance (i.e. car household cover). Non-indemnity insurance (also referred to as long-term insurance) is insurance where the amount which the Insured has the right to receive is not necessarily equivalent to the actual loss suffered. It provides insurance against a certain event, the timing of which is uncertain. Indemnity insurance (also referred to as short-term insurance) is insurance in terms of which the Insured will recover the amount of the *actual loss* that he has suffered. It provides insurance against an uncertain event, the timing of which is uncertain. The differentiation between non-indemnity and indemnity insurance is vital because even though an insurable interest is essential in indemnity and non-indemnity insurance, the date at which an insurable interest must be present, differs. In the case of indemnity (short-term) insurance, an insurable interest must exist at the time of the loss, if there is no insurable interest at that time, no loss is suffered. In the case of non-indemnity insurance (long term), an insurable interest need only exist when the insurance is taken out, that is at the time of concluding the contract of insurance. Despite the clear difference between these types of assurance the terms *Assurance* and *Insurance* are used interchangeably in the literature and in the industry. This study consistently uses Assurance to describe non-indemnity insurance.

[3] Framing the *descriptive question* is like taking a photograph — it provides a picture of the state of events (i.e. what is the competency profile of an advisor?). According to White and Fowler (1986) the researcher sets out to describe rather than explain psychological phenomena and a good description, is in most cases, a prerequisite for a viable explanation – as is done by explaining the hypothesised job profile of an advisor and the use of the descriptive *d*-statistic to do so. The *explanatory* strategy involves the adoption of certain data collection and data analysis techniques in order to explain a psychological phenomenon. It flows from a descriptive analysis and the observations made at this initial stage of the research. The *exploratory* strategy is a combination of both the descriptive and explanatory processes. It does not test precise predictions, but adopts a flexible approach which may involve both description and/or explanation. It provides tentative answers to research questions as well as indications for the direction of future research – as reflected by the choice and investigation of the sociographical and biographical variables in this research. It is often used when a relatively new field or area is investigated.

[4] *Bancassurance* can be described as a combination of banking and assurance business. A bank might sell both mortgages and the life assurance policies (mortgage insurance) that accompany them. Bancassurance is not a different form of assurance, but rather an alternative method of distributing assurance products otherwise done through a separate insurer. In essence, the banking sector has a large "friendly" customer base – this being the banks' existing clientele. Given an established relationship with a bank, there are hopefully loyal and satisfied customers who are more open to approaches from a trusted source that offers assurance products. Bancassurance distribution gears this relationship to unlock benefits to all parties through revised expense and commission structures. Within South Africa, the expanding lower- and middle-income

concurrent validation[5] *study.* Figure 1 illustrates the interplay between the three domains researched and their relationship to job performance. The three domains are depicted as concentric circles with job performance at the point of overlap. The figure provides a picture of the focus of the research pillars or domains investigated in this study in particular, it does, however, not imply that job performance is completely explained by these three domains – it only indicates the focus of this study.

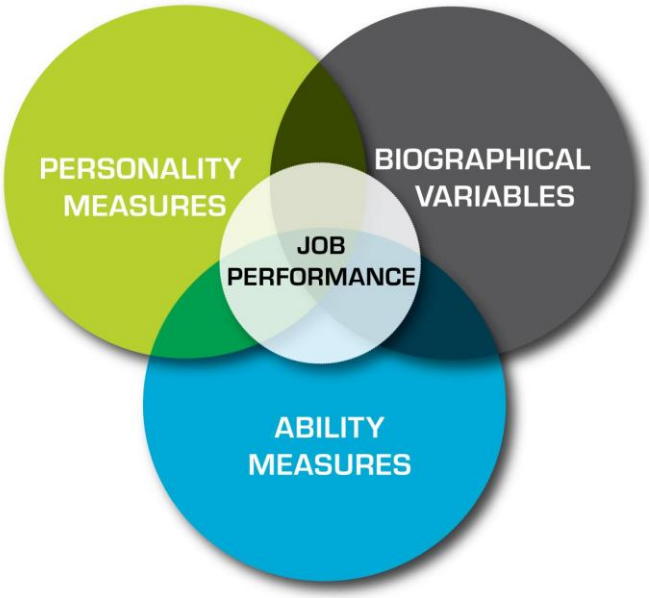


Figure 1. Criterion-related concurrent validation study

Validity measurement, which is core to this study, is defined by Messick as follows[6] (in Wainer & Braun, 1988, p. 33, author's emphasis):'Validity is an overall evaluative judgement, founded on empirical evidence and theoretical rationales, of the *adequacy* and *appropriateness* of *inferences* and *actions* based on test scores.' (p. 33). Schmidt and Hunter (1998) define validity as '… [T]he degree to which certain explanatory psychological concepts or constructs account for performance on a test'. By answering the predictive question, for example, researchers try to predict which employees will be productive and most successful. This information is then used to select applicants who will be better-performing employees. If this is how *validity* is defined, then what is meant by *validation* since the difference seems to be more than mere semantics? Cascio (1998) quotes the American Psychological Association (APA) Standards (1995) and defines validation as the investigative processes of gathering or

classes that now have access to banking facilities make Bancassurance an extremely viable alternative for assurance companies to make their products available to potential clients.

[5] The concept of validity and hence conducting validation studies as a scientific process in the mainstream of hypothesis testing, can be traced back to seminal articles by Cronbach and Meehl (1955) and Campbell and Fiske (1959) and the American Psychological Association (2001) that identified four categories or types of validation evidence: predictive, concurrent (subsequently named criterion validation), content and construct validity. Validity, however, is a unitary concept. Thus although evidence may be accumulated in many ways, validity always refers to the degree to which that evidence supports the inferences made from the scores. Inferences regarding the specific uses of a test are validated, not the test itself.

[6] Messick's; is probably the most quoted definition of validity in the unified perspective (Wainer & Braun, 1988; McPhail, 2007, SIOPSA, 2003).

evaluating data emphasising that the various methods of validation revolve around two issues: Firstly, *what* a test or other procedure measures and secondly, *how well* it measures. Validity is thus an evolving property while validation is a continuing process (Messick, 1995). This validation study then investigates the validity of three domains in predicting job performance, and does so by investigating the relationship between *competency* (based on a competency-based personality assessment; ability measurement; biographical and sociographical variables[7]) and *competencies* (as assessed through manager ratings of performance on various aspects of a competency model and objective production data) (Bartram, 2005).

In order to make inferences of the factors or behaviours that characterise a successful advisor; data were obtained from 185 advisors with a two year and longer tenure within the distribution network of a South African Bancassurance operation. It is foreseen that the research will answer the research question adequately and the anticipation is that it will assist in refining a competency matrix derived from a job analysis of the position[8]. All incumbents assessed are already practising as financial advisors and therefore restriction of range will appear within the sample and alternative statistical methods will be used to compare high-performing[9] advisors with low-performing advisors. It is, however, foreseen that the essential and important competencies – as derived from the competency matrix – will be confirmed, and that significant differences between high-performing advisors and low-performing advisors will emerge both on the competency matrix as well as on the ability and biographical/sociographical predictor variables.

1.2 PARADIGM PERSPECTIVE, THEORETICAL MODEL AND DESIGN

This study is directed by a research paradigm, design, and theoretical model of performance in the world of work, which informs the research methodology harnessed. Firstly, with regards to the research paradigm the three major paradigms prevalent in social science practice today are positivist, interpretive and constructionist, and they differ along the three dimensions of ontology, epistemology[10] and

[7] Biographical variables include age, gender, education level, ethnic origin, and home language. Sociographical data in this study are variables that are determined by the interplay with the position from an interpretive paradigm and include work experience, number of jobs and what kind of jobs held before becoming a financial advisor, size of family, fit within the family, marital status, how many assurance and investment contracts held before joining, property status when joining, size of assets held before joining, tenure, family work background, and number of appointments per day. The sociographical variables are discussed under predictor variables further on.

[8] A job analysis is the first and foremost building block in criterion development (Guion, 1961) and is the blueprint for achieving organisational performance through individuals. The objective of a job analysis is to define each job in terms of the activities and associated behaviours necessary to perform the job. Job analyses comprise two major elements: Job descriptions and job specifications. Job (or person) *specifications* indicate the personal characteristics necessary to do the work, while job *descriptions* specify the physical and environmental characteristics of the work to be done, and often includes lists of associated tasks that the job requires according to its criticality and time taken (Cascio, 1998).

[9] *High-performing* advisors are those in the top 25% of the sample (quartile 1), also described in the study as *top performing* advisors and conversely *low-performing* advisors those in the bottom 25% (quartile 4) of the sample, also described as *bottom performing* advisors..

[10] Epistemology, according to Moser (1995), is the study of knowledge and justification, specifically the study of (a) the defining features, (b) substantive conditions, and (c) limits of knowledge and justification.

methodology. Table 1 summarises these paradigms (Huysamen, 1997; Marais, 1991; Terre Blanche & Durrheim, 2002).

Table 1. ***Positivist, interpretive and constructionist paradigms in social research***[11]

Paradigm	Ontology	Epistemology	Research Methodology
Positivist	Stable external reality Law-like	Objective Detached observer	Experimental; Hypothesis testing Quantitative: Natural science method, hypothetico-deductive, particular, outcome-oriented, fixed categories, casual explanation, number crunchers
Interpretive	Internal reality of subjective experience	Emphatic Observer inter-subjectivity	Interactional; Interpretational Qualitative: Interpretive & constructionist anthropological, inductive inference, holistic emphasis, process-oriented, emergent categories, understanding, story-tellers
Constructionist	Socially constructed reality Discourse	Suspicious Political Observer constructing versions	Deconstruction Textual analysis Discourse analysis

1.2.1 Positivist and interpretive paradigms in the study

This study is directed by positivistic *and* interpretive paradigms. With regards to the positivistic nature of construct validity research Messick (1988) remarks that much of the early development of concepts of construct validity can be attributed to the positivist tradition. He traces the philosophical history of validity contrasting to the positivist obsession, with objective verifiability found in the logical positivism, and the falsification principles to the thoughts of Popper. Similarly, this study looks for confirmatory information regarding success predictors, as well as "falsification" or the discovery of disconfirmatory evidence.[12] The positivistic character of this study is further evident in the quantitative nature of the inquiry and the stable external reality (organisational recruitment practices) in which we look for a specific 'goodness of fit' between the type of person recruited and success predictors in the job (propensity for success). The nature and justification of the knowledge obtained in the research (epistemology) is objective and detached, since the knowledge base and justification is done through empirical data obtained through a variety of metrics. This positivistic stance is reflected in a methodology that is hypothesis driven.

[11] The APA (2001) suggests that the table number should appear in the first line, followed by the table heading in a second line. Due to the programming constraints of MS Word when generating the list of tables in the table of contents, table headings are however kept in a single line in this study.

[12] Hypothesis formulation usually forms the basis for this approach. According to Evans and Olson (2000) hypothesis testing begins by defining two alternative, mutually exclusive, propositions. The first is called the *null hypothesis*, denoted by H_0, which represents a theory or statement about the status quo that is accepted as correct. The second is called the *alternative hypothesis*, denoted by H_1, which must be true if we conclude that the null hypothesis is false. Hypothesis testing always assumes that H_0 is true, and sample evidence is obtained to determine whether H_1 is more likely to be true. Because the sample evidence can provide only a conclusion about H_1, we cannot statistically "prove" that H_0 is true; we can only fail to reject it. Thus, if we cannot reject the null hypothesis, we have shown only that there is insufficient evidence to conclude that it is not true. However, rejecting the null hypothesis does provide proof (in a statistical sense) that the null hypothesis is not true, and that the alternative hypothesis is therefore correct.

The researcher, however, has been practically and inter-subjectively involved with the population being studied for over seven years. The consequence of this existential engagement is that this study is then also approached from an *interpretive paradigm*. Testimony to this interpretive approach is in the level of access to data that would normally not be disclosed to external researchers, extensive experience in the distribution of assurance products through different distribution methods, day-to-day involvement in the wellbeing of advisors and an intuitive engagement with the subject matter. This interpretational interaction and qualitative engagement is further illustrated by the choice of specific biographical and sociographical variables.

The research paradigm harnessed in this validity study thus involves both positivistic and interpretive perspectives, both quantitative and qualitative methodologies. The interpretive *and* qualitative nature of validity studies seems to be confirmed when Angoff (1988, p. 26) postulates that 'construct validity is a process, not a procedure; and it requires many lines of evidence, not all of them quantitative'.

1.2.2 The relationship between theory and praxis

Denzin and Lincoln (1994, p. 584) further confirm that although qualitative research methods are diverse, all good quantitative research should include '[T]he commitment to study human experience from the ground up…'. The implication then is that if an interpretive paradigm is used it should also address the relationship between theory and praxis. The question then is how it could be operationalised in a research process. In this regard the hermeneutical circle of Holland and Henriot (1980)[13] illustrated in Figure 2, is a helpful tool.

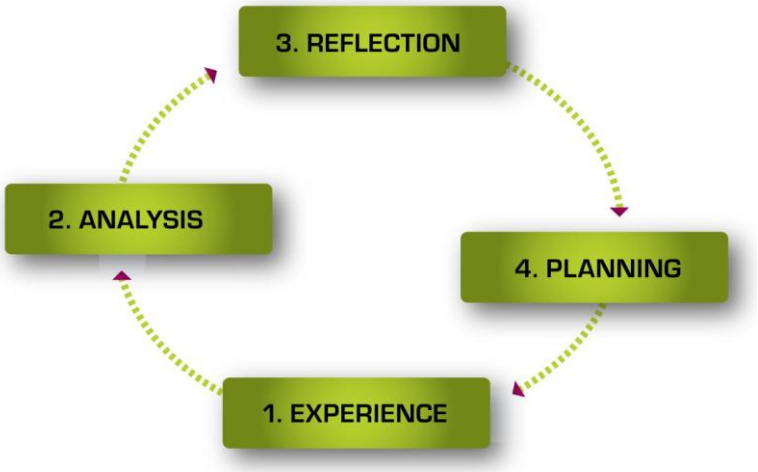


Figure 2. Hermeneutical circle of praxis applied to interpretive research

[13] Holland and Henriot's (1980) pastoral cycle, "hermeneutic circle" or the "circle of praxis" was developed early in this century, and later adjusted to a "See-Judge-Act" cycle. In the late 1950s, "Evaluate" and "Celebrate" were added (cf. Freire, 1970).

This cyclical method is frequently referred to as the "circle of praxis" because it emphasises the ongoing relationship between reflection and action. It is related to the method of interpretation that sees new questions continually being raised to challenge older theories by the force of new situations. The method looks at reality from an involved, historically committed stance, discerning the situation for action. It involves close relationships between the four elements[14]: 1) experience, 2) analysis, 3) reflection, and 4) planning. This method provides a framework to study experience with practical and theoretical integrity. When experience is cited as the primary source for an observation in this study, it is systematically subjected to this qualitative theoretical framework.

This *qualitative* research paradigm is further reflected in the choice of predictor data and measuring instruments, and in the position of the literature review in the study. Extensive qualitative experience in the development of seven distribution models over a period of six years provides the background for this research. In all these models, involving in excess of 2000 advisors in differently tied (linked) configurations, the OPQ32i and VC1.1 have been used. This experiential bias informs the place of the literature review, which is only discussed after a discussion of the measuring instruments. The study uses a hypothetical competency-based job profile of an advisor and attempts to not only isolate success predictors, but to do so in terms of a job profile. It uses the competency profile and the results of the study to pre-empt how a Person Job Match (PJM) report should look for an advisor who meets the requirements of the job. The PJM is electronically generated when using the OPQ32i from Saville and Holdsworth.

1.2.3 A theoretical model of performance in the workplace

The *theoretical model* of performance used in this research continues on the above paradigm and attempts to *connect theory and praxis* by combining the parsimony and structure of academic models with the usability and practicality of those developed in the field. In this regard Kurz and Bartram (2002) mention that despite a long history of research in behavioural sciences relating to performance at work, an overarching conceptual model is still lacking. Herriot and Anderson (1997) suggest that the traditional paradigm of personnel psychology needs to evolve to accommodate a number of developments in the international business environment and their effects on human resources management – that is to take cognisance of developments of work such as competency models emerging from the world.

[14] The first moment in the circle is *experience*. The lived experiences of the various role players are the experiences that constitute primary data. The abovementioned experiences must be understood in the richness of all their interrelationships. This is the task of *analysis*, the second moment in the circle. Analysis examines causes, probes consequences, delineates linkages, and identifies actors. It helps make sense of experiences by locating them in a bigger picture and drawing connections between them. The third moment in the circle of praxis is *reflection*, an effort to understand more broadly and deeply the analysed experience in the light of prevailing theory and practice. Since the purpose of the circle is action or implementation, the fourth critical moment in the circle is planning. In the light of experiences analysed and reflected upon, what response does the business case call for? How should the responses be designed to be most effective?

In response to this supposed gap between theory and praxis Kurz and Bartram (2002) suggest a unifying framework that integrates both academic theories and occupational assessment practices, and can be applied to competency-based human resource management. This competency framework relates competency to the requirements made on people for performance in the workplace on the one hand, and to the underlying psychological characteristics (competency potential) on the other. It sets out to identify, define and measure individual differences in terms of specific work-related constructs that are relevant to successful job performance. Over the past 25 years this approach has gained popularity, due – in part – to the comprehensibility of the concepts and the world-of-work language used. Kurz and Bartram (2002, p. 11) define competencies as 'sets of behaviours that are instrumental in the delivery of desired results or outcomes'.

However, confusion often prevails as to the difference between competency and competence. This distinction is particularly important since it lies at the heart of validity measurement. According to Kurz and Bartram (2002, p. 230) '… [A] competency is not the behaviour or performance in itself but the repertoire of capabilities, activities, processes and responses that enable a range of work demands to be met more effectively by some people than by others'. From a validity point of view, this study investigates the relationship between competency and competence. To clarify the concepts of competency and competence, Kurz and Bartram (id.) use the analogy of a musician's repertoire:

> A musician delivers a performance that cover a range of styles and content, which may be judged as more or less good by listeners. These performances fall within the musician's repertoire and are a consequence of his or her competency as a musician. The competency is not the same as the performances, but it is what enables the performances to occur. The behaviours that the musician has to be skilled and adept at are also not the same thing as the performance. The performance is the choreographed stream of behaviours that will be judged overall as either 'good' or 'bad', 'effective' or 'ineffective', 'successful' or 'unsuccessful' (p. 229).

Figure 3, adapted from Roe (2005) and Williams (2002), attempts to integrate both the notions of competency and competence in terms of validity research. According to this framework, competency could be regarded as focusing on the *input* side, whereas competence on the *output* side. Alternatively competency includes given dispositions, endowments or antecedents (i.e. personality and ability), whereas competences are learned by doing and are proximal antecedents (i.e. work behaviour or job performance). In this study c*ompetency* as a multidimensional domain is used as predictor or independent variable, and *competence* as criteria data or dependent variable.

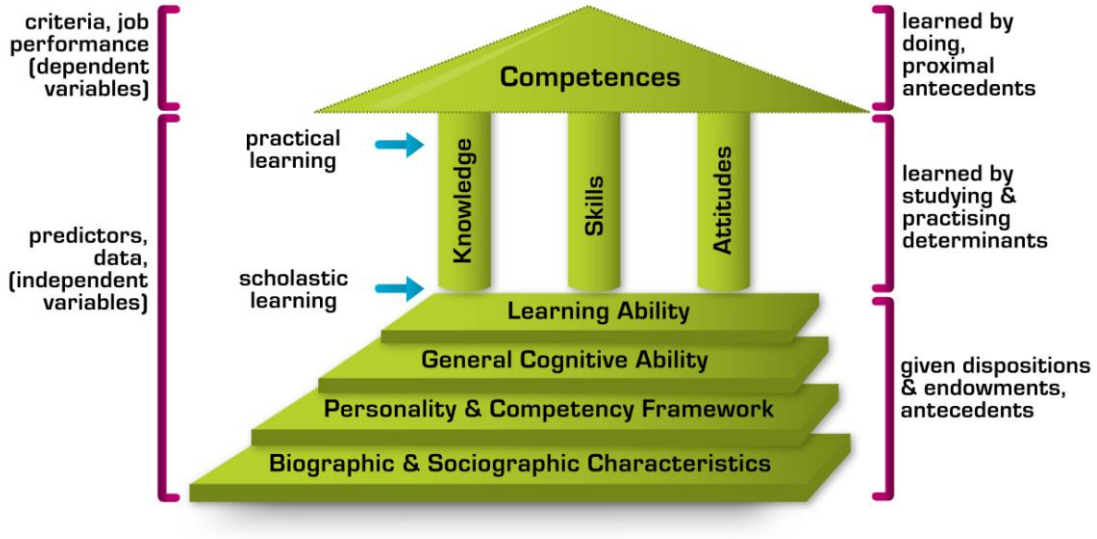


Figure 3. Competency, competence and validity

1.2.4 A holistic framework for psychological research

In order to operationalise the positivistic and interpretive paradigm position; the competency-based theoretical perspective of performance in the world of work, and the relationship between theory and praxis, the *research methodology* used in this study is informed by a holistic framework for psychological research. According to this framework (adopted from Joubert, 2006; Wright & Fowler, 1986) (illustrated in Figure 4) the theoretical and paradigmatic perspectives consistently permeate the research both conceptually and sequentially.

According to this multidimensional framework the conceptual drivers of the research process are the theoretical and paradigmatic perspectives, which in this study is a combination of the positivistic and interpretive stances. These perspectives then inform the triad of theory construction, research strategy and research format utilised. In this study performance in the world of work provides the context for a concurrent validity study. According to this framework this research *a priori* culminates in an 8-step investigative process, which could be summarised in three phases. The first phase involves the *research strategy* and includes the clarification of the theoretical model – it outlines the research problem and states the questions and hypotheses. The second phase involves the *research format* – it deals with the operationalisation of the study and includes data collection techniques, the research design and procedures and the data analysis. The final phase involves *theory construction* and closes the loop in retrospect by interpreting the results and evaluating the research process.

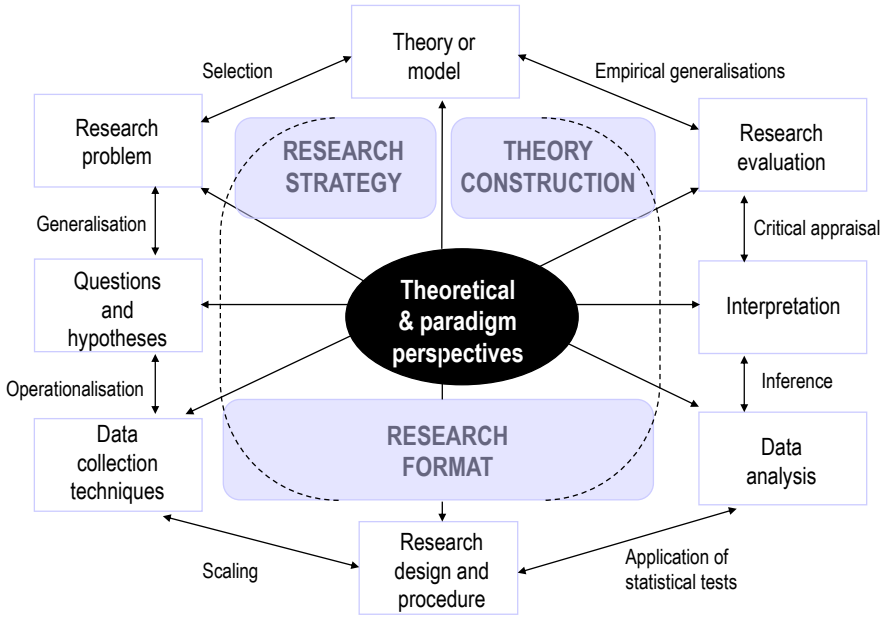


Figure 4. Holistic framework for psychological research: Overview

Once the theoretical and paradigmatic perspectives have been clarified the abovementioned phases can also be regarded as three lenses that focus the study. Firstly, the lens of *research strategy* informs the theory or model used (i.e., descriptive, explanatory or explorative), the formulation of the research problem, and the subsequent questions and hypotheses in an iterative manner that oscillates between the theoretical demands and practical feasibility. This descriptive, explanatory and exploratory study investigates the useful relationships between personality, ability, biographical and sociographical factors on the one hand (predictor variables) and criterion measures of job-relevant behaviour on the other, in order to isolate success-predicting factors for advisors. This is explained in Chapters 1 to 3.

The second lens is that of determining the *research format* or combination of research formats to be used. A research format, according to Wright and Fowler (1986) can be defined as a particular type of investigative approach and the authors mention two main formats which are characteristic of psychological research: the *experiment* and the *correlation study.* The chosen research format determines the *triad* of *data collection techniques,* the *research design and procedure*, and *the subsequent data analysis*. This study falls into the correlation category, which informs the data collection techniques and – in this study – involves the choice of criterion and predictor data. At the research design and procedure stage decisions are made about the research design, sampling procedure and sample size, and in this study the protocols for conducting validation studies are outlined. At this stage Wright and Fowler (1986) include the issues pertaining to measurement scales, choice of tests and significance testing. The data analysis involves the different analytical techniques used to analyse the data and

disseminate the results. In the research design and procedures phase this is juxtaposed between the data collection techniques and the data analysis – the research design and procedures continuously influence both, and the matter is addressed in Chapter 4

The third lens moves from interpretation back to theory, concludes the circle of praxis and contributes to *theory construction.* It involves the dissemination of the results in terms of conclusions and inferences made. It critically appraises the research in terms of both the research methodology and the contribution research results make to theory construction within the field of investigation. This is discussed in Chapter 5.

Four components thus constitute the scientific orientation of the study: Firstly, a positivistic and interpretive paradigmatic approach is followed. Secondly, the circle of praxis methodology addresses the relationship between *theory and praxis*. Thirdly, a theoretical model of performance provides the framework for connecting theory and praxis when conducting validity research. Finally, a holistic framework for psychological research directs the practical sequence and layout of the research. This enables the study to address both validity *and* utility in selection processes; the competency *and* competence of advisors; include predictor *and* criterion variables, and bridges the gap between theory *and* praxis in a balanced way and with scientific integrity.

1.3 BACKGROUND AND RELEVANCE OF THE STUDY

The background, relevance and research aim of this study is approached from a practical (utility)[15] and theoretical perspective (validity). From a practical perspective it deals with the added economic value of predictive validity in assessments. This is emphasised by the acknowledged global shortage of sales and financial expertise and the high costs involved in training these individuals to levels of competence. It is also evident from global trends (Pistell, 2004) that current recruitment practices seem inadequate to attract the appropriate skills in sufficient quantity and quality. This seems to be a function of the eclectic use of assessment methods and a lack of an overarching theoretical framework linking theory and praxis mentioned above, hence not fully extracting the value gained from validity research (Kurz & Bartram, 2002). The relevance of the study is firstly discussed in terms of the validity and utility of selection methods (in the contexts of the quality and the quantity of financial advisor selection). Secondly, the Bancassurance distribution model and the place of the financial advisor within this environment are discussed. This scenario then informs a research aim that firstly attempts to clarify the multidimensional profile of a successful financial advisor and secondly aims to add practical utility to the organisation's future selection processes.

[15] The practical value of selection methods is also known as its utility (Schmidt & Hunter, 1998). Utility gives an estimate of the monetary and/or value gain associated with the use of a specific assessment device (Boudreau, 1991; Boudreau, Sturman & Judge, 1994).

1.3.1 The validity and utility of selection methods

With regards to the intricate relationship between validity and utility in selection, Schmidt and Hunter (1998) make three key observations in their landmark study spanning 85 years of research findings. Firstly, that the economic value gains (utility) from improved hiring methods are typically very large; secondly, that these gains are proportional to the size of the increase in validity when moving from the old to the new selection methods; and thirdly, that no other characteristic of a personnel measure is as important as predictive validity. With regard to the role of validity in determining the utility of assessments, Schmidt and Hunter (id.) postulate the following:

> The most important property of a personnel assessment method is predictive validity, which is the ability to predict future performance, job-related learning and other criteria. This predictive validity coefficient is directly proportional to the practical economic value (utility) of the assessment method. Use of hiring methods with increased predictive validity leads to substantial increases in employee performance as measured in percentage increases in output, increased monetary value of output, and increased learning of job-related skills. (p. 26)

Murphy and Bartram (2002) mention that modern utility assessments typically involve three general steps. Firstly, to predict the outcomes of a decision or policy; secondly, to attach value to those outcomes; and thirdly, to compare predicted changes in value with the costs involved in implementing the decision. The concept of *utility analysis* refers to the application of analytic methods to forecast and evaluate the effects of an intervention, test, training programme, etc. Utility measurements currently in use are derivatives of the dichotomous criteria models first developed by Taylor and Russel (1939). These models indicate whether or not employees will be "successful", and thus measure the increase in percentage successful in a selected group. Secondly, the models by Brogden (1946) and Cronbach and Gleser (1965), are used to forecast continuous criteria such as future performance levels, hence the increase in monetary payoff of a selected group. Thirdly, the models by Naylor and Shine (1965) are used to determine the increase in the mean criterion score of the selected group (Cascio, 1980 & 1998). All three models assume a validity coefficient based on present employees (concurrent validity).

Besides the untapped utility potential of validated assessment processes it is also evident that current recruitment methods seem inadequate to attract the appropriate skills in sufficient quality and quantity, and that traditional methods of recruiting and training talent in the US assurance industry are no longer sufficient (Pistell, 2004). With regard to the *quality* of advisors Pszeniczny (2004) states three reasons why the assurance industry is prey to a decreasing long-term trend in the number of advisors: People are recruited into the business without having a realistic understanding of assurance as a career. Secondly, company and advisor selection standards are often too low – which could involve validity issues in assessment practices, and thirdly, new advisors often receive too little training, supervision, and marketing support. Pszeniczny (id.) further suggests four key elements that should be incorporated into recruitment practises: Involve virtually the entire agency in the recruiting effort; tap a wide variety of

sources to identify potential recruits; establish – and stick with – a rigorous selection process; and really deliver on training support. Pszeniczny (id.) confirms that an extensive testing program for screening suitable candidates is paramount to advisor retention, as are full-time coaches for new recruits. It is estimated to take up to three years and a $100 000 investment to develop a successful advisor. In the organisation in question, the combined direct and indirect costs exceeded R250 000 per advisor over an 18-month period. It is therefore of strategic importance that organisations optimise their recruitment and selection processes, specifically for advisors.

With regards to the number of advisors it is predicted that a shortage will have developed by 2005, and by 2020 the shortage will have increased to 14 million employees (assurance-related business accounts for 2 per cent of the US GDP). Pistell (2004) further indicates that the demand for employees in the financial services in the US will grow by more than 10 per cent between 2000 and 2010. To meet this need, insurers will have to move beyond recruiting from rival organisations toward structured internal development of new talent, in order to stay competitive. In South Africa the assurance industry is a major player in the economy. The local long-term assurance industry in South Africa, proportional to the rest of the market, is significant. The top three insurers rank amongst the high 25 companies measured in terms of cash flow. Their combined annual cash flow exceeds R22 604 million (2004) – which is only outclassed by the mining houses Anglo American and BHP Billiton. It means that on any given weekday almost R87 million jointly runs into the coffers of these three assurors (*Finance Week*, March 2003, High 200 rankings). The shortage of assurance salespeople in South Africa has been endemic for many years and the average age of advisors is also creeping up. This research attempts to contribute to a more efficient and comprehensive recruitment and selection approach. Therefore a validity study of psychometric assessments and other biographical and sociographical variables used in advisor selection should provide utility benefits to the organisation.

1.3.2 First-party[16] advisors in the Bancassurance industry

Distribution channels are integral to getting product offerings to potential customers, and a variety of distribution methods exist in the assurance industry to distribute these products. These salespeople (advisors) are differentiated according to their level of "tiedness" to a specific company and their proximity to the client. This differentiation is a function of the respective business models that harnessed by the product suppliers, and boils down to one issue: Who funds the infrastructure for this salesperson to

[16] Advisors are frequently categorised in terms of their proximity to the client. *First party* in this case means that this advisor sells directly to the client on behalf of the product supplier, who is either an assurance company or a bank, selling assurance products – hence Bancassurance. *Third-party* marketers (i.e. broker advisors) market a company's product(s) to a tied advisor or independent intermediary (broker) who then sells it to the client. The proximity of the advisor to the client has implications for the personality or competency profiles of the advisor, hence the difference between the profiles of *first-party* advisors and *third-party* marketers. The underlying thesis of this study is that there could even be differences between first-party advisors from an assurance company and advisors in a Bancassurance operation.

conduct his or her business? Tied salespeople primarily offer one company's products (but not exclusively) and are provided with the infrastructure to do so by the sponsoring company, whereas independent brokers or "untied" intermediaries offer the products of a variety of companies and are responsible for their own business infrastructure.

1.3.3 Changes in the South African regulatory environment

In the past, products offered by assurance companies were the main differentiators between companies. In the current environment, however, product differentiation is no longer the only key driver for profitability. This has led to a renewed focus on innovative customer-centric (and tied) distribution methods. The recent regulation of the assurance industry in South Africa, and thrust toward compliance and commission regulation have also exerted external pressures toward professionalising the industry. These innovative methods include the leveraging of multiple databases and multiple contact point with clients, of which the Bancassurance model is a good example. The Bancassurance model, of which there are currently but a few success stories in South Africa, combines those financial products traditionally offered by banks with the products offered by assurance companies. These products are distributed through a tied sales force that operates from the bank's premises. The Bancassurance model shares the advantage of an independent broker (intermediary) distribution model in that the products of multiple assurance companies can be marketed to clients. It has a further advantage in that the Bancassurance financial advisor has a captive client base in the retail bank's database. Essentially, it is a first-party selling strategy – as with tied agents – but with some characteristics of a generic independent brokerage. This hybrid (between first- and third-party selling dynamics) is reflected in the type of sociographical and biographical variables subjected to scrutiny in this study.

1.4 RESEARCH QUESTION AND AIMS

No study has been done utilising the OPQ32i in recruiting first-party selling advisors specifically in the South African Bancassurance environment, nor has any study included the biographical and sociographical predictor variables incorporated in this study.

The research question hence comprises the following elements:

- What is the *competency profile* of a successful financial advisor in the Bancassurance environment?
- What is the *ability profile* of a successful financial advisor in the Bancassurance environment?
- What is the *biographical and sociographical profile* of a successful financial advisor in the Bancassurance environment?

Following on the above-mentioned problem statement, the aim of the study is consequently to do a criterion-related, concurrent validity study in order to determine the competency, ability, biographical and

sociographical profile of successful first-party advisors in the Bancassurance environment. In practice this aim may result in the meeting of three objectives:

- To contribute an authentic body of knowledge in this regard, since from the literature review it is clear that South African research into the assurance industry – and specifically on the combined validity of instruments and biographical variables – is scarce;
- To report on the competency and ability profiles of successful advisors in more depth than is generally reported in the consulted literature;
- To report on possible biographical and sociographical variables that significantly and practically predict job performance.

As mentioned above the research attempts to contribute to a more efficient and comprehensive approach to the recruitment and selection of intermediaries. The validity study of psychometric assessments and other biographical and sociographical variables used in advisor selection should therefore provide utility benefits and theoretical depth to the organisation's selection processes. The practical significance the research has for the organisation, could include:

- Better utility in the use of measurement devices in the recruitment and selection processes;
- Enhanced retention figures – realistic job preview according to a validated model;
- An accelerated production curve – quicker to produce due to the goodness-of-fit with the job;
- Validated instrument use in the selection process, which is the scientific translation of the assessment requirements mentioned in the Employment Equity Act of South Africa (SA Department of Labour, 2007).

1.5 RESEARCH CHAPTER LAYOUT

Chapters 1 to 3 deal with the *research strategy* – the first phase in terms of the holistic research approach (Wright & Fowler, 1986). In *Chapter 1* the scientific orientation to the study is introduced. It starts with the background and relevance of the study. It discusses the role of validity and utility in recruitment and selection of advisors amidst a global shortage of these skills. It frames the context of the Personal Financial Advisor in the Bancassurance distribution environment and builds a case for the theoretical scrutiny of factors that determine advisor success, before crystallising the research problem and aims of the study.

In *Chapter 2* the research methodology and processes for conducting the criterion-related validity study are outlined. In *Chapter 3* the research problem is explored in terms of the existing body of knowledge. The literature review is done through three lenses: Firstly, it investigates the issue of validity, validation studies and the use of validated devices in the recruitment process as, applied to the career of an advisor in the Bancassurance environment. Secondly, it discusses *trends* in the use of assessments in advisor

recruitment as well as the profile of successful advisors. It explores the competency-based theoretical model of job performance and investigates the role of personality, ability, biographical and sociographical factors in the make-up of a successful advisor. The chapter concludes with a discussion on the competencies of the current model under investigation.

Chapter 4 deals with the *research format* and *operationalisation* of the second phase in terms of the holistic research approach (Wright & Fowler, 1986). The data obtained in the study is scrutinised and disseminated according to the analytical procedures harnessed.

Chapter 5 deals with the *theory construction* – the third phase in terms of the holistic research approach (Wright & Fowler, 1986). The results are discussed in the context of the study's aims, summative results are provided, and the shortcomings of the study are summarised. This culminates in a conclusion that provides pointers for future investigation and theory construction. To facilitate future research in this specific research area, and to stimulate scrutiny with regards to data collection procedures, two appendices are attached. These include the script and protocol used in the collection of the data, and the criterion questionnaire managers completed on each of the advisors.

Chapter 2: Research methodology

Up to this point the theoretical context and the research aims of the study have been crystallised. Chapter 2 proceeds to operationalise the research, and outlines the research methodology and processes used when conducting criterion-related validity research. Firstly it discusses the nature of the sample in terms of the sociographical and biographical variables investigated. Secondly it focuses on the predictor and criterion variables and thirdly the instruments utilised. The chapter concludes with a section on validation study procedures and how they were actualised in the research.

2.1 PARTICIPANTS

The participants consisted of a sample of 185 (N)[17] individuals taken from a total possible population of 695 advisors in the Bancassurance distribution channel of probably the most successful Bancassurance model currently in use in South Africa. The sample was chosen on a judgemental base – on the researcher's judgement – of what constitutes a representative sample. The sample consisted of members with two years (or longer) service as advisors in this environment. The criteria for choosing this sample are related to the time it takes advisors to be reasonably successful and the high attrition rates in sales environments.

Firstly, according to LIMRA[18] (2000), it takes approximately 60 weeks for an advisor to be able to sell without supervision. Figure 5 (Dickie & Trailer, 2005, p5)[19] illustrates an international benchmark for overall sales trends. It is clear from the pie chart that compared to general sales environments the time needed to reach selling proficiency is much longer in the assurance environment.

[17] According to the APA (2001) a capital letter (N) should be used to indicate the size of a total sample, and a lowercase (n) the number of subjects within a limited section of the sample. For the purposes of this study the total sample is 185, and is denoted by a capital letter (N). Subsets that are compared with each other by means of Chi squares and t-tests are denoted by a lowercase (n).

[18] LIMRA (Life Insurance Market Research Association) is an international membership-driven assurance research house which is often quoted as the benchmark in assurance best practice. LIMRA helps its members solve marketing problems through cooperative research and research-based products. Members include nearly 850 assurance and financial services companies in more than 60 countries. For the purpose of this study LIMRA is regarded as the international research benchmark focusing on assurance matters.

[19] The South African and African assurance industries are relative small compared to international standards, and in many international studies, Africa is grouped with other developing regions. South Africa itself also lacks benchmarked and annual studies as regards its own sales operations. This provides a continuous challenge as to what we compare ourselves with and what would be regarded as a data benchmark for financial services. With regards to general sales trends (that include the services sector), the annual survey of Dickie and Trailer (2005) will be deemed as a representative benchmark for this study. The 2005 Dickie and Trailer sales survey coincides with the time frame of the study (2005) and is intended to have worldwide participant representation (America – 52.3%; Pacific Rim – 13.6%, Europe – 18.8%, Rest of the World – 15.3%); includes the multiple industries of the respective economies (Services – 41.6%, Manufacturing – 32.7%, Other – 25.7%). The 2005 study surveyed 1040 companies with varying size sales forces (20-250+) on more than 100 sales metrics.

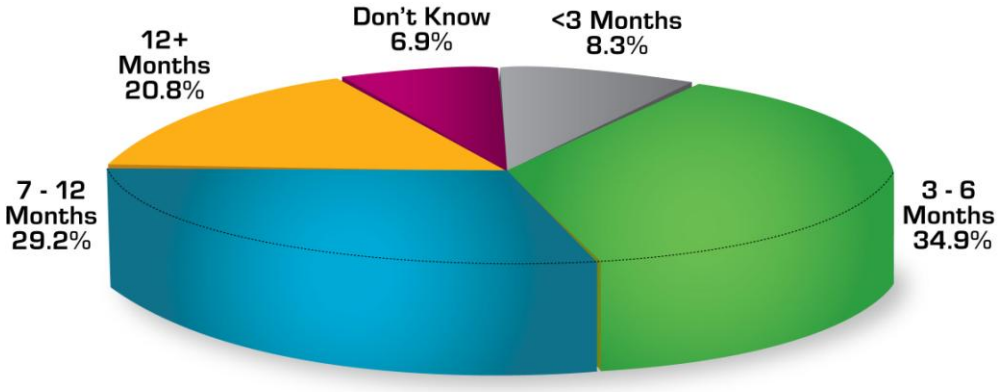


Figure 5. International survey: Overall time to full sales productivity

The second criterion for the selected sample is that attrition rates in the assurance sales environment only *begin* to stabilise after year one and finally stabilise after approximately two years – from as high as 40 – 50 % in the first year to approximately 26% after year two. The international average for salesperson attrition (combined voluntary and involuntary) in 2005 was 48.7% (Dickie & Trailer, 2005). Given these attrition rates and performance hurdles, the saturation level of the above sample (N = 185) is almost 90%.[20] Controlling for the two factors of attrition and the time it takes to become successful, improves the quality of the sample. It is foreseen that the results will provide high levels of generalisation into predicting the sales success of advisors in the assurance industry.

The following biographical categorical variables were included: Age, sex, education level, ethnic origin, and home language. Sociographical variables included, were the following: Customer segment at inception of career and mobility within the segments after career inception, position in family,[21] marital status, job-related experience, take up of assurance before inception of career, and property and asset status at inception (see Table 2). Table 3 summarises participants' characteristics as reflected in this study. Table 4 presents the descriptive statistics for the continuous categorical variables of age, work experience, and number of appointments per day.

[20] If these international benchmarks are applied, and given the fact that the total population consists of 695, of which approximately 417 (60%) advisors have a tenure of two years or longer and a general attrition rate (average attrition over all years of experience) of 50%, a possible 208 advisors could meet the sample requirements.

[21] In Afrikaans a distinction is made between "gesin" and "familie". In this study we refer to the former when referring to "family" – it describes the "nuclear family" (mother, father, and children), and not "family" (as in English) that could include uncles, aunts etc. In reporting on the size of the family the advisor grew up in, this was emphasised to avoid confusion.

Table 2. ***Sociographical variables included in this validation study***

In what *market segment* do you currently operate? A – Lower Affinity B – Upper Affinity C – SME D – Priority E – Elite	**Have you changed market segment since joining the COMPANY?** A – Yes, going up in the segments B – Yes, going down in the segments C – No change since joining	**In the family you grew up, how many children were you, including yourself?** A – 1 child B – 2 children C – 3 children D – 4 children E – 5 children F – 6 or more	**Where did you fit into this family?** A – Only Child B – Oldest C – Youngest D – Middle child of 3 or 5 children family E – Second Oldest in family of 4 or 5 children F – Second youngest in family of 4 or 5 children G – Other	**What was your *property status* when you joined COMPANY?** A – Had a bond when joining B – Bond was 50% less than the value of the property C – Did not have a bond when joining	**What was your *marital status* when you joined the COMPANY?** A – Married WITH dependents B – Married but with NO dependents C – Single/ Divorced/ Widowed/ Separated but WITH dependents D – Single/ Divorced/ Widowed/ Separated but with NO dependents
What type of experience did you have before joining the COMPANY? A – Banking B – Assurance (non-sales) C – Agent or Advisor D – Broker Advisors E – Independent Broker F – Teaching G – Own Business H – Other	**How many jobs did you have before joining the COMPANY?** A – 1 B – 2 C – 3 D – 4 E – 5 F – 6 and more	**How many active life/investment contracts did you have when joining the COMPANY?** A – 1 B – 2 C – 3 D – 4 E – 5 F – 6 and more	**Did you have any relatives in the Assurance Industry when you joined the COMPANY?** A – Yes B – No	**What did your father or mother mainly do for a living (career)? Report only on one of the two** A – Government B – Own Business C – Teacher D – Professional E – Trade F – Financial Services G – Other	**What was your Net Asset value (NA) when you joined the COMPANY?** A – NA was worth 6 times monthly income B – NA was worth 5 times monthly income C – NA worth 4 times monthly income D – NA worth LESS than 4 times monthly income

Table 3. ***Frequency distribution of biographical and sociographical variables (N = 185)***

Item	Category	Frequency	Percentage
Gender	Male	158	85.4
	Female	27	14.6
Marital status when joined	Married + dependents	99	53.5
	Single/divorced with dependents	27	14.6
	Married no dependents	26	14.0
	Single/divorced no dependents	32	17.3
	Missing value	1	1.6
Language	English	101	54.6
	Afrikaans	72	38.9
	Northern Sotho	7	3.8
	Tsonga	1	0.5
	Tswana	7	2.16
Qualifications	Grade 10 or below	5	2.7
	Grade 12	74	40.0
	Post-Matric certificate	25	13.5
	Degree	51	27.6
	Postgraduate	30	16.2
Ethnicity	African	45	24.3
	Coloured	5	2.7
	Indian	20	10.8
	White	115	62.2
Fit in family – when growing up	Middle	19	10.3
	Oldest	72	38.9
	Other	16	8.7
	Youngest	40	21.6
	Second oldest (4/5)	18	9.7
	Second youngest (4/5)	13	7.0
	Only child	7	3.8
Parents' occupation	Government	32	17.3
	Other	63	34.0
	Own business	23	12.4
	Professional	17	9.2
	Trade	15	8.1
	Teacher	15	8.1
	Financial services	19	10.3
	Missing value	1	0.5
Relatives in assurance when joining	No	135	73.0
	Yes	50	27.0
No children in family (incl.) – when growing up	One – Only child	10	5.4
	Two children	33	17.8
	Three children	45	24.3
	Four children	39	21.1
	Five children	21	11.4
	Six or more children	37	20.0
Number of jobs held before joining	One or first job	36	19.5
	Two jobs	47	25.4
	Three jobs	47	25.4
	Four jobs	20	10.8
	Five jobs	17	9.2
	Six jobs	17	9.2
	Missing value	1	0.5
Property status when joining	Did not have a bond	88	47.6
	Owed 50% or less on bond	29	63.2
	Yes, did have a bond	65	98.4
Net assets when joining	More than 6 times net assets	92	49.7
	More than 4 times net assets	23	12.4
	More than 5 times net assets	17	9.2
	Less than 4 times net assets	53	28.7

Type of job held just before joining	Broker advisor	20	10.8
	Banking	36	19.5
	Teaching	18	9.7
	Independent broker	17	9.2
	Assurance (non-sales)	47	25.4
	Agent or advisor	47	25.4
	Own business	0	0
	Other	0	0
Market segment worked when joined	Lower affinity segment	42	22.7
	Upper affinity segment	90	48.7
	SME segment	33	17.8
	Priority segment	15	8.1
	Elite segment	5	2.7
Mobility within segments since joining	In same segment	143	77.3
	Moved down in segments	6	3.2
	Moved up in segments	35	18.9
	Missing value	1	0.5
Number of contracts held when joining	One contract	60	32.4
	Two contracts	29	15.7
	Three contracts	28	15.1
	Four contracts	24	13.0
	Five contracts	14	7.6
	Six or more contracts	28	15.1
	Missing value	2	1.08

Table 4. ***Descriptive statistics: Age, work experience and number of appointments***

	Valid N	Mean	Min	Max	SD
Age	178	39.81	23	69	9.57
Work experience	178	14.90	0	53	9.76
Number of face-to-face appointments/day	185	5.02	1	55	5.69

2.2 Predictor and criterion variables

The predictor or independent[22] variables investigated are the 32 factors of the Occupational Personality Questionnaire (OPQ 32i), and as it is translated into the Universal Competency Framework of 20 competencies and the VC1.1 critical reasoning assessment. Two sets of criteria data are used as dependent variables. The first set is advisor production figures[23] which span one calendar year of

[22] The Statistica electronic manual succinctly addresses the frequently reported confusion between dependent and independent variables among students and other alike. “Independent variables are those that are manipulated (i.e. different personality profiles of applicants), whereas dependent variables are only measured or registered” (i.e. production figures in this study). This distinction appears terminologically confusing to many because, as some students say, "all variables depend on something." However, once you get used to this distinction, it becomes indispensable. The terms *dependent* and *independent* variable apply mostly to experimental research where some variables are manipulated, and in this sense they are "independent" from the initial reaction patterns, features, intentions, etc. of the subjects. Some other variables are expected to be "dependent" on the manipulation or experimental conditions. That is to say, they depend on "what the subject will do" in response. Somewhat contrary to the nature of this distinction, these terms are also used in studies where we do not literally manipulate independent variables, but only assign subjects to "experimental groups" based on some pre-existing properties of the subjects – as is done in this study.

[23] Production figures in this environment are calculated according to the amount of “commission written”. The type of product as well as the size of the premium or investment determines the amount of commission that is involved with a specific transaction.

advisors with two years or more experience in the job. Other observable competence measures include activity (i.e. number of appointments per day) and quality metrics (i.e. size of premiums). These metrics underpin production data and are regarded as international benchmarks driving sales success (CLC, 2004a; Honan, 2005), and are usually used as performance and activity *management tools* by the organisation – hence mainly excluded from this study. However, the activity metric, *number of appointments conducted per day* is included in this study and is a generally accepted behavioural heuristic that predicts the success of advisors.

The second criterion set comprises objective performance ratings by each advisor's manager related to the respective advisors' observable behaviour. The quality of these ratings from supervisors should be consistent, reasonably free from criteria contamination and the process of data collection should take cognisance of judgemental biases in rating.[24] These criteria measures also had to meet certain standards because 'the adequacy and appropriateness of criteria set the limits for the quality of judgments. (Muchinsky, Kriek & Schreuder, 2002). According to Cascio (1998) any predictor measure will be no better than the criterion used to establish its validity. The conceptual and actual or operationalised criteria should have as big overlap as possible and criteria should further be reliable and relevant. In designing the criterion questionnaire for this concurrent validation study cognizance was taken of these factors. In the case of this study the competences (observable behavioural samples) on which managers rated advisors, are the same as those in the competency model used for recruitment.

Guion (1961) outlined criterion development for the purpose of predicting job success, in a five-step process. These requirements were adhered to in developing the initial recruiting model (through a rigorous job analysis process) and the related competency framework delineated from the OPQ32i formed the foundation of the criterion questionnaire. The five-step process is as follows:

1. Job analysis and/or analysis of organisational needs;
2. Development of measures of actual behaviour relative to expected behaviour as identified in the job analysis. These measures should supplement objective measurements of organizational outcome such as turnover, absenteeism, production and so on;
3. Identification of criterion dimensions underlying such measures by factor analysis, cluster analysis, or pattern analysis;
4. Development of reliable criterion measures, each with high construct validity, of the elements identified
5. Determination of the predictive validity of the independent variables for each of the criterion measures respectively.

[24] Cascio (1998) mentions the following judgmental biases that raters need to be aware of when rating: Leniency and severity, central tendency, and halo effects. In this study managers were trained prior to rating anyone. The administration protocol is attached as Appendix B.

Other factors that were taken into account in developing the criterion measurements are the issues of criterion contamination and deficiency. According to Muchinsky et al. (2002) and Anastasi and Urbina (1997) criterion contamination is that part of the actual criteria that is unrelated to the conceptual criteria – the "contaminated" part. It is the extent to which the actual criteria measure something other than the conceptual criteria. Criterion contamination consists of two parts: Firstly, bias is the extent to which the criteria systematically or consistently measure something other than the conceptual criteria, and secondly error, which is the extent to which the actual criteria are not related to anything at all. Criterion deficiency is the degree to which the actual criteria fail to overlap the conceptual criteria – that is, how deficient the actual criteria are in representing the conceptual ones. There is always some degree of deficiency, but it should be reduced through careful selection of the actual criteria. "Both contamination and deficiency are undesirable in the actual criterion, and together they distort the conceptual criterion…because certain factors are included that do not belong in the conceptual criterion. Criterion deficiency distorts the actual criterion because certain important dimensions of the conceptual criterion are not included in the actual criterion." (Muchinsky et al., 2002).

To the best of our knowledge the two sets of criteria data (objective production data and managerial ratings according to a competency model) utilised in this project are not contaminated or deficient (according to the above standards) and were developed in conjunction with the supplier of the OPQ32i. Every attempt was made to meet the requirements of scientific scrutiny, as prescribed by the Society of Industrial and Organisational Psychologists in South Africa (SIOPSA, 1998, p16):

1. Criteria should relate to the purposes of the decision procedure investigated: The criteria are relevant, free from contamination, and reliable. The purpose is clearly stated, acceptable in the social and legal context in which the organisation functions and, appropriate to the organisation's needs and purposes;
2. All criteria should represent important work behaviours or work outputs: As argued above the production data, activity measures and criterion questionnaire meet these requirements;
3. The possibility of bias in the criteria should be considered: This is explained in a one-to-one situation to the manager. It is explicitly mentioned to the manager that this data will not be used for performance management purposes, thus preventing possible positive bias;
4. Several criteria are not combined to obtain a single variate; all criterion variables have equal weightings. If combined variates are combined, a rationale is given to support the rules of combination;
5. It is desirable that criterion measures should be highly reliable.

The 20 competencies listed in Table 5, on which managers rated advisors, are the same competencies that advisors report on when completing the OPQ32i. These same competencies are built into the competency model (see discussion below on instruments used).

Table 5. ***Criterion data questionnaire and rating scale***

Rating scale		Description
1	Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.
2	Below average performance	The employee's performance of the activity is below standard, must still improve, and does not always meet expectations.
3	Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations
4	Above average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.
5	Outstanding performance	The employee's performance of the activity is excellent, superior, and remarkable.

Rating	Competency	Definition
	Deciding and Initiating Action	• Making effective decisions even under difficult circumstances; taking responsibility and showing initiative.
	Leading and Supervising	• Providing others with clear direction; establishing standards of behaviour for others; motivating and empowering individuals.
	Working with People	• Demonstrating interest in others; working effectively in teams; building team spirit; showing care and consideration for individuals.
	Adhering to Principles and Values	• Upholding ethics and values; acting with integrity; promoting equal opportunities.
	Relating and Networking	• Establishing effective relationships with customers and staff; networking effectively within and outside the organisation; relating well to individuals at all levels.
	Persuading and Influencing	• Making a strong impression on others; gaining agreement and commitment through persuasion; negotiating and managing conflict.
	Presenting and Communicating Information	• Speaking clearly and fluently; expressing opinions and arguments clearly and convincingly; making presentations with confidence.
	Writing and Reporting	• Writing clearly and succinctly in an interesting and convincing manner; structuring information in a logical manner to facilitate the understanding of the intended audience.
	Applying Expertise and Technology	• Applying specialist technical expertise; developing job knowledge and expertise; sharing knowledge with others.
	Analysing	• Analysing data of a verbal and numerical nature and other sources of information; breaking information down into components; probing for further information; generating workable solutions to problems.
	Learning and Researching	• Learning new tasks quickly; remembering information; gathering data for effective decision-making.
	Creating and Innovating	• Producing new ideas and insights; creating innovative products and solutions; seeking opportunities for organisational change and improvement.
	Formulating Strategies and Concepts	• Working strategically to attain organisational goals; developing strategies and taking account of a wide range of issues that impact the organisation.
	Planning and Organising	• Setting clear objectives; planning activities well in advance; managing time effectively.
	Delivering Results and Meeting Customer Expectations	• Focusing on customer needs and satisfaction; setting high standards for quality and quantity; consistently achieving set goals.
	Following Instructions and Procedures	• Following instructions and procedures; adhering to schedules; demonstrating commitment to the organisation.
	Adapting and Responding to Change	• Adapting to changing circumstances; embracing change; being open to new ideas; dealing effectively with ambiguity.
	Coping with Pressures and Setbacks	• Working productively in a stressful environment; controlling emotions in difficult situations; handling criticism effectively.
	Achieving Personal Work Goals and Objectives	• Accepting and tackling demanding goals; Working longer hours when necessary; Identifying opportunities for progressing to more challenging roles.
	[Displaying][25] Entrepreneurial and Commercial Thinking	• Keeping up to date with competitor information and market trends; identifying business opportunities; demonstrating financial awareness.

2.3 MEASURING INSTRUMENTS – OPQ32i AND VC1.1

Two instruments were used in the study of which the Occupational Personality Questionnaire (OPQ32i) measured personality and the Verbal Critical Reasoning questionnaire (VC1.1) measured critical

[25] This competency seems to lack a *verb* compared to the other competencies. The assumption is that *thinking* functions as a verb, but to clarify the competency it could be read as *displaying* entrepreneurial and commercial thinking.

reasoning ability. The Occupational Personality Questionnaire (OPQ32) model (Saville & Holdsworth, 1999) is an occupational model of personality, which describes 32 dimensions or scales of people's preferred or typical style of behaviour at work (13 items per scale) and has a large normative database. The development of the OPQ 32 model is guided by six principles (SHL, 2008):

- **Designed specifically for the world of work**

Many personality questionnaires were developed from a theoretical perspective influenced by clinical psychology and trialled solely on student groups. The OPQ development research was designed to ensure – from the start – that the scales would be relevant and acceptable for use in the workplace. The use of item content which is not related to the world of work is avoided.

- **Avoids clinical or obscure psychological constructs**

Whilst not underestimating the complexities of personality, OPQ development programmes are concerned with the direct assessment of what people typically do and avoid more obscure psychological traits that have very little direct relationship with the world of work.

- **Comprehensive in terms of personality scales measured**

Rather than address a relatively small number of scales, the OPQ is designed to be comprehensive in terms of personality variables covered, even at the risk of some slight redundancy of measurement occurring. For those who prefer parsimony to detail, shorter versions of the OPQ have been developed to provide a summary of an individual's personality based on factor analytical principles.

- **For use by human resource professionals and psychologists**

The OPQ questionnaires are designed for use by appropriately trained human resource practitioners, as well as industrial and organisational psychologists. Training requirements in each country conform to International Test Commission guidelines and standards set by local professional psychological associations.

- **Based on sound psychometric principles**

To ensure that all OPQ questionnaires provide sound information and meet expected professional standards, a thorough technical development programme was followed. The international nature of the research effort allows the questionnaires to be adapted for use in many languages and countries.

Particular emphasis has been given to ensuring that the content of the questionnaires is appropriate for use with people from different ethnic and gender groups, as well as those who are differently abled. The structure of the OPQ32i (Ipsative version) includes three broad domains: *Relationships with People*,

Thinking Style, and *Feelings and Emotions*. These domains can be subdivided into 32 dimensions, as summarised in Appendix C (Saville & Holdsworth, 1999). These 32 factors measured in the OPQ32i map to a competency model with 20 competency dimensions as summarised in Table 6. When comparing the contents of Table 5 (the criterion questionnaire) with Table 6 (the OPQ31i competency model) the overlay between the the model investigated and the criterion questions are clear.

Table 6. ***The Universal Competency Framework as derived from the OPQ32i***

Competency	Definition
Deciding and Initiating Action	• Making effective decisions even under difficult circumstances; taking responsibility and showing initiative.
Leading and Supervising	• Providing others with clear direction; establishing standards of behaviour for others; motivating and empowering individuals.
Working with People	• Demonstrating interest in others; Working effectively in teams; building team spirit; showing care and consideration for individuals.
Adhering to Principles and Values	• Upholding ethics and values; Acting with integrity; promoting equal opportunities.
Relating and Networking	• Establishing effective relationships with customers and staff; networking effectively within and outside the organisation; relating well to individuals at all levels.
Persuading and Influencing	• Making a strong impression on others; gaining agreement and commitment through persuasion; negotiating and managing conflict.
Presenting and Communicating Information	• Speaking clearly and fluently; expressing opinions and arguments clearly and convincingly; making presentations with confidence.
Writing and Reporting	• Writing clearly and succinctly in an interesting and convincing manner; structuring information in a logical manner to facilitate the understanding of the intended audience.
Applying Expertise and Technology	• Applying specialist technical expertise; developing job knowledge and expertise; sharing knowledge with others.
Analysing	• Analysing data of a verbal and numerical nature and other sources of information; breaking information down into components; probing for further information; generating workable solutions to problems.
Learning and Researching	• Learning new tasks quickly; remembering information; gathering data for effective decision-making.
Creating and Innovating	• Producing new ideas and insights; creating innovative products and solutions; seeking opportunities for organisational change and improvement.
Formulating Strategies and Concepts	• Working strategically to attain organisational goals; developing strategies and taking account of a wide range of issues that impact the organisation.
Planning and Organising	• Setting clear objectives; planning activities well in advance; managing time effectively.
Delivering Results and Meeting Customer Expectations	• Focusing on customer needs and satisfaction; setting high standards for quality and quantity; consistently achieving set goals.
Following Instructions and Procedures	• Following instructions and procedures; adhering to schedules; demonstrating commitment to the organisation.
Adapting and Responding to Change	• Adapting to changing circumstances; embracing change; being open to new ideas; dealing effectively with ambiguity.
Coping with Pressures and Setbacks	• Working productively in a stressful environment; controlling emotions in difficult situations; handling criticism effectively.
Achieving Personal Work Goals and Objectives	• Accepting and tackling demanding goals; working longer hours when necessary; identifying opportunities for progressing to more challenging roles.
Entrepreneurial and Commercial Thinking	• Keeping up to date with competitor information and market trends; identifying business opportunities; demonstrating financial awareness.

A typical job analysis would reveal which of these competencies are essential for meeting the requirements of the job; which are important; which desirable, and so forth. This weighted and job-specific competency configuration constitutes the model for the specific job. Candidates are then assessed in terms of the degree of fit with the model and this informs the selection decision. In this study such a model is hypothesised, which takes cognizance of the requirements of the job of a financial advisor.

The OPQ32i consists of 416 items, and is self-reporting on an ipsative basis where a forced choice is requested between most and least true in 104 quads of 4 statements each (Saville & Holdsworth, id.). It has evolved over a twenty-year period since the commercialisation of the first OPQ Concept Model in 1981 and culminated in the launch of the OPQ32 model in 1999. Two types of reliability studies were carried out on the OPQ32i, including internal consistency and retest reliability (Saville & Holdsworth, ibid.). Five types of validity studies were conducted on the OPQ32i instrument, namely content validity, face validity, criterion validity, and construct validity (concurrent and predictive). Saville and Holdsworth, (id.) concluded that the OPQ32i is valid and capable of achieving the objectives for which it was designed.

The question as to the validity of the use of ipsative versus normative data is of particular importance in this context. Baron (1996) indicated that making similar interpretations of ipsative results to those of normative may not be inappropriate with larger number of scales – as is the case with the OPQ32 model. In this regard Cronbach (quoted in Saville & Wilson, 1991) indicates that ipsative scales can be used for comparing individuals scale by scale – as is done in this research.

- **To understand the logic of work related arguments**

The second instrument used is the VC 1.1 Verbal Critical reasoning evaluation (VC1.1) also from SHL (SHL, 2004). The VC1.1 measures the ability to understand and evaluate the logic of various kinds of arguments, and includes a variety of topics relevant to supervisory and junior management grades. This test consists of a series of passages, each of which is followed by several statements. The task is to evaluate each statement in the light of the passage, and to indicate whether it is 'true' or 'false' or 'cannot say given the information given in the passage'. The test consists of 60 questions and the applicant has 30 minutes in which to complete them. The value of this assessment has been established in previous validation studies in the organisation and is widely used in other work settings. The critical reasoning scores load on the OPQ32i competencies of planning and organising, as well as the analytical-related competencies, and is integrated into the final job match report. The integration of the critical reasoning ability into a competency framework addresses the supposed dilemma reported in the literature (CLC, 2004b), namely that measuring the analytical ability of advisors is difficult.

2.4 VALIDATION STUDY PROCEDURES

The OPQ 32i is used in the company's recruitment processes, personal development, and 360-degree performance evaluation – this was not yet the case at the time of this study. Each individual completed the OPQ32i, the VC 1.1, as well as a sociographical and biographical questionnaire. The population is dispersed over the whole of South Africa and is attached to all branches of a retail bank, reporting per

region to respective sales managers. The assessments were conducted on branch meeting days or during other dedicated meetings by trained administrators. The collection of personality, ability, biographic, sociographical data and manager ratings was a function of logistics. This took place concurrently over an eight-month period. Annual production data (taken at year end) were extracted from the company database on a separate occasion. A standardised testing and administration protocol was followed and is (see Appendix A.) SIOPSA (1998) suggests that procedural considerations be taken into account before the collection and analysis of data take place. These considerations and how they were taken into account in the study are illustrated in Table 7.

Table 7. ***Procedural considerations for data collection in validation studies***

Requirement	Actions taken
Validation research should ordinarily be directed at entry jobs, immediate promotions or jobs likely to be attained	In this research, the job being recruited for and the one validated are the same.
The test user may consider alternate criterion-related research methods that offer a sound rationale	A choice was made to gather production data as well as manager ratings and to work towards a composite criterion measure, if possible.
Procedures for test administration and scoring in validation research should be carefully set forth and be consistent with the standardisation plan for operational use	The testing and administration protocol was standardised and consistently applied by trained test administrators (Appendix A).
There should at least be presumptive evidence for the validity of a predictor prior to its operational use	The OPQ32i and its job match technology have well-established validity. They are in multiple work contexts and industries and are regarded as relevant instruments for predicting for performance.
Predictor data and criterion data should be independent of each other	Predictor data were collected from the individuals themselves; production data were extracted later from the organisation's production database. The managerial ratings were collected at the same time as incumbents were completing their assessments. This was, however, done in a different room and after rater training had been given to the managers and without them being aware of the advisors' predictor results. It was also explained to them that the data were used for research purposes, not for performance management purposes, and that performance ratings would not be discussed with the respective advisors.

It is also clear from the literature that the unified framework on validity measurement is well established (Anastasi & Urbina, 1997; Cascio, 1998; Muchinsky et al., 2002). It distinguishes between three lines of validity evidence: Firstly, content-related validity is concerned with whether or not a measurement procedure contains a fair sample of the universe of situations it is supposed to represent. Secondly, construct-related validity measurement is a theoretical and empirical task that determines the extent to which a measure of a construct is empirically related to other measures with which it is theoretically associated – seeking relationships between different theoretically associated constructs, not between two different measures of the same construct – which is criterion-related validity, the focus of this study.

Thirdly, criterion-related validity measures the relationship between predictor performance and criterion performance, differentiated on a time continuum (concurrent and predictive validation). Figure 6 summarises this theoretical framework for validity studies and how the abovementioned validity measures relate to recruitment and selection processes. It highlights the focus of this study – the linkage between predictors and criteria.

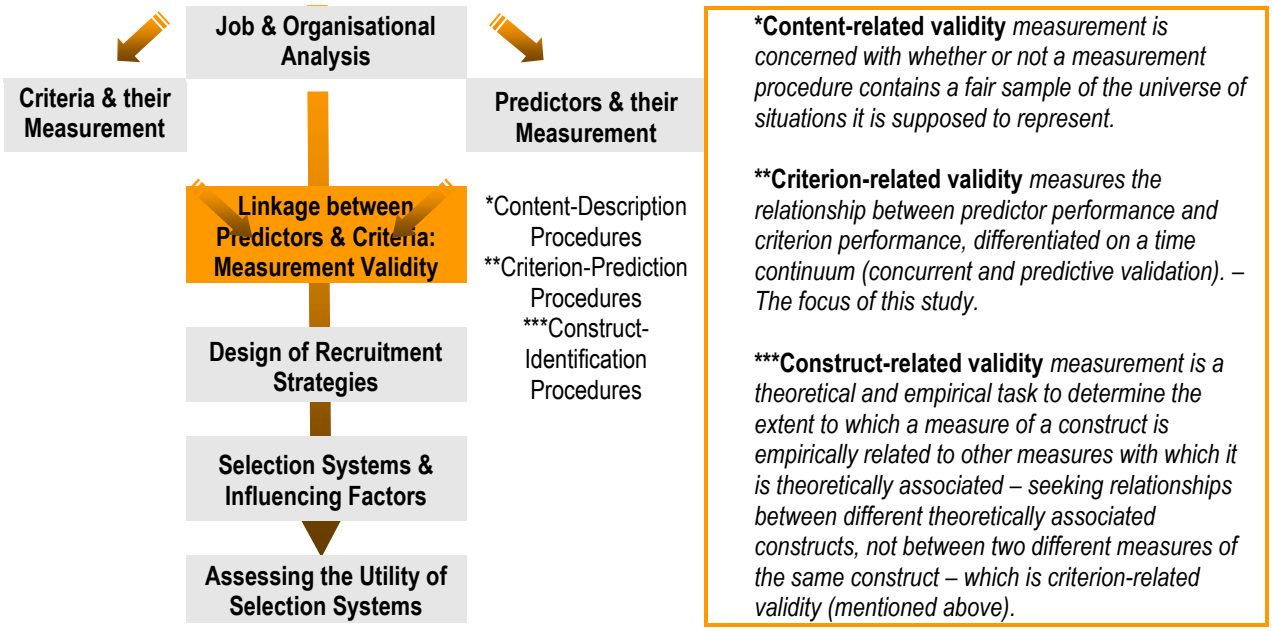


Figure 6. The place of a validation study in the selection process

The requirements for criterion development have been discussed above. The question is how these requirements feed forward when conducting validation studies. According to Cascio (1998) and SIOPSA (1998) four theoretical factors determine the feasibility and credibility of criterion-related validation studies Table 8 summarises these requirements and indicates how the criteria were adhered to in this study, in order to meet requirements for feasibility and credibility of criterion-related validation studies.

Table 8. *Feasibility and credibility for criterion-related validation studies*

Criteria	Current Study
The job is reasonably stable and not in a period of rapid evolution. This will ensure that similar conditions exist when results are made operational	The job is stable and current legislative compliance pressures are confirmed in the job analysis – seemingly higher ability needs and analytical competence than previously required.
It must be able to develop relevant, reliable and uncontaminated unbiased criteria measures	Production figures and activity measures are clearly relevant to the job. The behavioural anchors provided by sales managers on their advisors, measure the same behaviours revealed in the job analysis. The testing protocol and administration of the questionnaires were done one-to-one, accompanied by rater-training that minimises bias (central tendency, halo leniency, and severity).

A criterion-related validation should be based on a sample that is reasonably representative of the populations of people or jobs to which the results are to be generalised	The study included the cluster of advisors with a tenure exceeding two years. As indicated, the competency predictors could be generalised to other first-party distribution forces and biographical predictors to a company-specific environment, and will constitute competitive knowledge.
A criterion-related study should have adequate statistical power. That is the ability to detect probable relations between predictor and criteria data	The relevant tables (Cohen, 1988) were used to only utilise the relationships with the highest statistical power and special caution was taken to prevent Type I and 2 errors. High and bottom performers were divided into quartiles and compared using Chi-squares (χ^2) statistics and *t*-tests.

In choosing the right test for selection purposes, LIMRA (2000) suggests a checklist that could inform validation studies. This checklist is which is summarised in Table 9, was adapted to include biographical and sociographical variables as indicated in this study's parameters. This checklist was used to focus the study both from a theoretical and an organisational utility perspective.

Table 9. ***Choosing and validating assessment instruments for selecting advisors***

Questions	This study
1. What do you want the test to do? To predict the fit with job requirements	Describe Explain ⇨ Predict
2. What does this test purport to do? To provide a job-related competency framework and the candidate's match with those competencies. To determine the most optimum job match	Describe Explain ⇨ Predict
RESEARCH CONSIDERATIONS	
3. Is the test grounded in research?	⇨ Yes No Don't know
4. What type of validation strategy is/was used?	⇨ Concurrent Construct Criterion
5. Does the test make predictions about future performance? Only the candidate's fit to job requirements. Job requirements are clarified in terms of essential, important, desirable competencies. Need to determine if these competencies in fact do predict success	⇨ Yes No Don't know
6. Is the test valid for your wants/needs?	⇨ Yes No
7. Is the test reliable?	⇨ Yes No
8. Was/Is the research sample representative of the group? Yes, total population	⇨ Yes No
9. How large is/was the research sample?	185
10. Is the study reliable to generalise sufficiently?	⇨ Yes No
11. What type of reliability (consistency of responses) is/was offered?	⇨ Test-retest ⇨ Internal Consistency
12. Does the test publisher do ongoing validity research?	⇨ Yes No Don't know
LEGAL & EE CONSIDERATIONS	
13. Will the test withstand a court challenge? The test will, but does it make business sense and will the recruiting variables (sociographical and biographical) withstand South African scrutiny?	Yes No ⇨ Don't know
14. Does the test discriminate on non-relevant job factors? The test does not, but does the study reveal certain other vital biographics (i.e. experience, background, financial status etc.)?	⇨ Age, gender etc. No Don't know
15. Does the test supplier provide legal support? Pertaining to the test but not for the selection process.	⇨ Yes No Don't know
ECONOMIC CONSIDERATIONS	
16. Does the test provide a return on investment? Not in isolation, but in conjunction with other process measures (screening, initial interview, structured selection interview).	⇨ Yes No Don't know

17. Do the recruitment variables (screening, biographics) provide a return on investment?	Yes No ⇨ To be confirmed
PRACTICAL CONSIDERATIONS	
18. Will the test be accepted by test administrators? Psychometrist not needed to administer the instrument, in line with business requirement for decentralised administration.	⇨ Yes No Don't know
19. Is it easy to administer and score? Yes, computer based, with centralised scoring and interpretation.	⇨ Yes No Don't know
21. Will the test be accepted by test takers?	⇨ Yes No Don't know
22. Are the results easy to interpret? Yes, person job match report.	⇨ Yes No Don't know
23. Does the test publisher provide materials support? Yes, at a cost.	⇨ Yes No Don't know
24. Does the test publisher provide decentralised service?	⇨ Yes No Don't know
25. Does the test fit into the company's selection process?	⇨ Yes No Don't know
26. How would the test compare to other selection tests?	⇨ Better than Same Worse than
27. Will the test publisher help to monitor the test results to assess validity within your organisation? This study is testimony to that.	⇨ Yes No Don't know

2.5 STATISTICAL PROCEDURES

A validity study by definition involves the issues of *statistical significance* and the *power of the test statistics* which in turn is a function of sample size and its representation of the larger population. Since this study harnesses both the positivistic and interpretive paradigms it is worthwhile to clarify the position taken in this study with regard to these two issues.

According to Evans and Olson (2000; p. 112) hypothesis testing involves five steps that direct the analytical process:

1. Formulating the hypothesis to test;
2. Selecting a *level of significance*, which defines the risk of incorrectly concluding that the assumed hypothesis is correct;
3. Determining the decision rule on which to base a conclusion;
4. Collecting data and calculating a test statistic and;
5. Applying the decision rule to the test statistic and drawing a conclusion.

Hypothesis testing underpins the study's aims although it is not formulated in hypothesis terminology. For example, the first study aim addresses the question as to what the competency profile of a successful financial advisor in the Bancassurance environment is. A 20-dimension competency model, derived from a job analysis, informs the respective null and alternative hypotheses set for each competency. For example, does the competency of *Planning and Organising* predict sales performance? If the study fails to reject the null hypothesis according to the test statistics then it is true that the competency of *Planning and Organising* in fact does predict sales performance. Alternatively, if according to the competency model it is hypothesised that, for example, *Writing and Reporting* is of low importance to the job – it is low predictor for job performance – and the test statistics confirm this, then the null hypothesis is actually false and the hypothesis test correctly reaches this conclusion. True to the descriptive nature of the study the research aims are stated in *descriptive terms*, for example: What is the ability profile of a successful financial advisor in the Bancassurance environment? However, underpinning this question is the testing of a null hypothesis that addresses the quality of the relationship between ability and performance.

If then, hypothesis testing underpins the research questions it follows that a *level of significance* should be selected to mitigate the risk of incorrectly concluding that the assumed hypotheses are correct. According to Evans and Olson (2000), hypothesis testing can result in four outcomes which involve the *significance levels* of the test result:

1. The null hypothesis is actually true, and the test correctly fails to reject it;
2. The null hypothesis is actually false, and the hypothesis test correctly reaches this conclusion;
3. The null hypothesis is actually true, but the hypothesis test incorrectly rejects it (called Type I error);
4. The null hypothesis is actually false, but the hypothesis fails to reject it (called Type II error).

The probability of making a Type I error is generally denoted by α and is called (indicates) the *level of significance* of the test. According to Evans and Olson (2000)

> This probability [of making a Type I error] is essentially the risk that you can afford to take in making the incorrect conclusion that the alternative hypothesis is true when in fact the null hypothesis is true. The confidence coefficient is 1-α, which is the probability of correctly failing to reject the null hypothesis. For a confidence coefficient of 0.95, we mean that at least 95 out of 100 samples support the null hypothesis rather than the alternative hypothesis. Commonly used levels for α, are 0.10, 0.05, and 0.01, resulting in confidence levels of 0.90, 0.95, and 0.99, respectively. (p. 113).

In this study the respective confidence hurdles are stated throughout. The choice of significance level hurdles – that are deviating from the .05 convention when interpreting biographical variables – is a function of the interpretive nature of the study and the wider context of distribution channel dynamics.

According to Evans and Olson (id.) the probability of a Type II error is denoted by β and

> [T]he value 1-β is called the power of the test, and represents the probability of correctly rejecting the null hypothesis when it is indeed false, and must be kept correspondingly high. Ideally, the power should be at least 0.80 to detect a reasonable departure from the null hypothesis. Generally as α decreases β increases, and the decision maker must consider the trade-offs of these risks. In most situations it is not always possible to access the entire population of interest, either for logistical reasons or that it is too expensive. As a result important decisions about a statistical population are made on the basis of a relatively small amount of sample data.

Typically then, a quantity is computed called a *statistic* in order to estimate some characteristic of a population called a *parameter* (Statistica electronic manual). If the power of the test is deemed too small, it can be increased by taking larger samples. With larger samples the decision maker is able to detect small differences between the sample statistics and the population parameters with greater accuracy. In this study the saturation level of the sample in terms of the larger population is assessed and its resemblance of normality investigated. Effect sizes are reported consistently, and the d-statistics are also reported when comparing groups.

Table 10 (Evans & Olson, 2000) summarises the error types in hypothesis testing discussed above.

Table 10. ***Error types in hypothesis testing***

	Test rejects H_0	**Test fails to reject H_0**
Alternative hypothesis is true	Correct	Type II error
Null hypothesis is true	Type I error	Correct

When concluding the study, this matrix is applied to *decision theory* in order to make suggestions for recruitment practices.

In disseminating the results, the relevant hurdles suggested by the American Psychological Association (APA) were used[26]. Results are reported in descriptive terms (distributions, central tendency, and dispersion)[27]. Statistical analysis was done with the help of Statistica software. Descriptive statistics and the analysis of the structure of the data were used as departure point, which in turn informed subsequent analyses. Where applicable, the statistical concepts and their workings are consistently described. This is in line with the utility purpose of the study and the hermeneutical research approach that integrates theory *and* praxis. The results of the study serve as a theoretical discourse *and* are consumed by commercial entities that want to optimise their distribution efforts. Since the latter are not always technically inclined in terms of statistical procedures, clarifications are provided to facilitate understanding.

Internal consistencies of instruments are reported. In this regard Cronbach alpha coefficients were calculated for the OPQ32i scales, VC 1.1 critical reasoning questionnaire and the Universal Competency Framework competency dimensions to asses the reliability of results. Correlations are reported in tables with the relevant hurdles – significance[28], and effect sizes (Cohen, 1988 & 1992; Henson & Smith, 2000). Pearson[29] product moment correlations were used to investigate the relationships between production data on the one hand and personality factors and ability scores on the other – of the whole sample. Correlations involving the whole sample (N=185) revealed some predictors associated with performance.

[26] According to the APA (quoted in Wilkinson & APA TFSI, 1999) statistical methods should guide and discipline our thinking but not determine it. To further this aim it suggests the following when reporting on analysis: To report and interpret effect sizes where relevant, to index statistically and non-statistically significant results to sample size, to provide evidence of replicability (power analysis), and to say "statistically significant", not just "significant" – the latter could be interpreted as "important" (cf. Henson & Smith, 2000; Kirk, 2001).

[27] The APA (2001) suggests the use of a zero before the decimal point when numbers are less than 1 (0,23 cm, 0,48 m), not to use a zero before a decimal fraction when the number cannot be greater than1 (correlations, proportions, and levels of statistical significance) and that it is better to round to two decimal places in the reporting data

[28] The Statistica electronic manual describes the term 'statistical significance"' (p-level) as follows. "The statistical significance of a result is an estimated measure of the degree to which it is 'true' (in the sense of 'representative of the population'). More technically, the value of the p-level (the term first used by Brownlee, 1960) represents a decreasing index of the reliability of a result. The higher the p-level, the less we can believe that the observed relation between variables in the sample is a reliable indicator of the relation between the respective variables in the population. Specifically, the p-level represents the probability of error that is involved in accepting our observed result as valid, that is, as 'representative of the population'. For example, a p-level of .05 (i.e.1/20) indicates that there is a 5% probability that the relation between the variables found in our sample is a "fluke'. In other words, assuming that in the population there was no relation between those variables whatsoever, and we were repeating experiments like ours one after another, we could expect that approximately in every 20 replications of the experiment there would be one in which the relation between the variables in question would be equal or stronger than in ours. In many areas of research, the p-level of .05 is customarily treated as a 'border-line acceptable' error level.

[29] The most widely-used type of correlation coefficient is the Pearson r (Pearson, 1896), also called linear or product-moment correlation (the term 'correlation' was first used by Galton in 1888). The Statistica electronic manual further describes the Pearson correlation using non-technical language, as follows: "One can say that the correlation coefficient determines the extent to which values of two variables are 'proportional' to each other. The value of the correlation (i.e. correlation coefficient) does not depend on the specific measurement units used; for example, the correlation between height and weight will be identical regardless of whether inches and pounds, or centimeters and kilograms are used as measurement units. Proportional means linearly related; that is, the correlation is high if it can be approximated by a straight line (sloped upwards or downwards). This line is called the regression line or least squares line, because it is determined such that the sum of the squared distances of all the data points from the line is the lowest possible. Pearson correlation assumes that the two variables are measured on at least interval scales."

These correlations directionally confirmed the hypothesised competency model of an advisor – competencies relevant to job performance revealed positive correlations and those less relevant to job performance revealed negative correlations; and *ability* revealed a correlation with success. It prompted further investigation in order to determine the differences between high-performing advisors (successful) and low-performing advisors (less successful).

By examining the *descriptive d-statistics* (Becker, 1999) of the judgemental sample, that consisted of the high and bottom quartiles (n = 90), it became evident that nonparametric procedures could also be useful – differences between high performers and low performers were clearer in the d-statistics. Reporting on the semblance of normality of the sample and the criterion data (production and appointments per day, per consultant) informed the use of nonparametric statistics. The distribution of the production and appointment data of the sample resembled what could be expected from the population of the whole distribution channel, and significant *production* and *appointment* differences between high-performing and low-performing advisors were discovered – also resembling what one would expect of a distribution population in the assurance environment. Further investigation was thus done by dividing the sample between high and low performers and conducting t-tests. Firstly the top two quartiles (50%) and the bottom two quartiles (50%) were compared, and secondly the top quartile (high 25%) and the bottom quartile (bottom 25%). The results were reported.

According to Becker (id.) in social science combined sample sizes of 40 or more would be considered "moderately large" when conducting t-tests. The size of this study's quartiled subsets was 90, when the top 25% (Q4) of advisors and bottom 25% (Q1) of advisors were subjected to t-tests. The split half t-tests (top 50% and bottom 50%) included the whole sample (N = 183). Becker (1999) provides a decision tree and assumptions to determine the use of nonparametric statistical procedures as is summarised in Table 11. This exposition was used to direct the analysis.

Table 11. ***Nonparametric statistical procedures and assumptions***

Score Dependency	Scale of Measurement	Score Distribution	Measure
Independent Scores	Interval or Ratio	Symmetric Homogeneous	t-test
		Symmetric Nonhomogeneous	Welch's **t** -test
		Skewed in Different Directions	Mann-Whitney U (Wilcoxon Rank Sum Test)
	Ordinal	(not an issue)	
Related Scores	Interval or Ratio	Symmetric Difference Scores	Paired Samples **t** -test
		Nonsymmetric Difference Scores	Wilcoxon Test for Paired Data
	Ordinal	(not an issue)	

Assumptions	(a) Kurtosis is not viewed as being a major threat to the t-test. If the two populations are symmetric, and if the variances are equal, then the t-test may be used. (b) If the two populations are symmetric, and the variances are not equal, then use Welch's t-test. (c) Skewness is not a problem if the skewness is in the same direction. If the variances are equal then use a t-test. (d) If skewness is in the same direction and the variances are unequal, then if the sample sizes are equal, use Welch's t-test. (e) In most instances in social science combined sample sizes of 40 or more would be considered "moderately large'

The results from the t-tests revealed statistically significant differences between high and low performers and confirmed the hypothesised competency model. In comparing the results obtained from correlations, t-tests and d-statistics provided a balanced view on the integrity and *practical significance* of the discovered indicators for success. This informed the subsequent *qualitative* comparison with the hypothesised competency model. This comparison confirmed the initial Pearson correlations but revealed more detail pertaining to the effect that ability has on the ultimate Person Job Match report (PJM). This procedure revealed more statistically significant personality dimensions. The comparison methodology between the top and bottom groups in terms of the biographical and sociographical variables was applied consistently by conducting t-tests on continuous variables and Chi-squares (χ^2) for categorical variables (Howell, 1999) and are reported on in terms of confidence and significance levels.[30] Statistically significant relationships were found between biographical and sociographical variables, and advisor success.

2.6 CHAPTER SUMMARY

In terms of the holistic framework for psychological research illustrated in Figure 6, the *Introduction* stated the *Theoretical and Paradigm perspective* that permeates the whole study. *Chapter 1* clarified the research problem and how it is generalised into the research of advisors in the Bancassurance environment. In *Chapter 2* the research process was operationalised. The participants and measuring instruments were discussed in terms of criterion and predictor variables. It also dealt with the data collection techniques and procedures for conducting validation studies in the assurance industry.

[30] According to the APA (2001) when referring to inferential statistics in the text, the following should be reported: The symbol, the degrees of freedom, the value of the statistic and the level of significance. The arithmetic mean, the standard deviation and/or any other descriptive statistics, which are necessary in to explain the results, should also be stated.

Chapter 3: Constructs in selecting Bancassurance advisors

As indicated, this study finds itself juxtaposed between the theory and praxis of recruitment and selection in the assurance industry. The aim is to provide translated theory that could inform sound practices within the industry, in order to increase the quality and quantity (number) of recruits. *Chapter 3* firstly interrogates current literature and practice, and secondly assesses future trends in the use of validated measurements in advisor selection. It focuses on the contribution that the three domains (personality, ability, biographical and sociographical variables) make to job success. The chapter culminates in a discussion of the competency and competence profile of a successful advisor, as derived from the job analysis process. From a practical point of view the current recruitment and selection practices and trends are scrutinised. Information was gleaned from industry related research houses and the author's personal experience. This parsimonious approach meets both the theoretical and practical demands of the study. It also gives an indication of the level of forward and backward integration currently occurring in the field of applying psychological science to the recruitment and selection of advisors in the assurance industry.

3.1 VALIDATED MEASUREMENTS IN ADVISOR RECRUITMENT

Recruitment and selection are quite lengthy processes that involve multiple steps or hurdles, and on a macro level encompass the organisation's whole culture and value proposition. (Murphy & Bartram, 2002). Selection and assessment are further integral to the whole employee human resource development cycle. Although inferences about the links between better personnel selection and organisational productivity can be drawn from an integrated approach (Hunter & Hunter, 1984), this study occupies itself with the validity of selection and assessment *per se* and not with the effectiveness of the overall recruitment and selection process or with the interplay with organisational effectiveness; for example the succession and development aspects of the human resource life cycle were excluded.

3.1.1 Strategic approach to competency assessment

Tovey (1994) suggests that the only route to take – if real business value is to be gained – is through a strategic approach to competency assessment. An outline of the approach is given in Figure 8, which illustrates how the output can form the basis of an organisation's human resource development strategy. With this approach the competency vernacular is applied throughout the whole organisation as a summative value proposition. The strategic position of the organisation is translated into a core set of competencies that drives the whole business enterprise. For example, if the organisation's strategic intent is to foster and expand its nimbleness and competitiveness (rather than just protecting market share) it may adopt *Entrepreneurial and Commercial Thinking* as a core competency. This strategically focused

competency approach then permeates all other recruitment processes. It provides the background music to all job analysis processes for the different positions in the organisation.

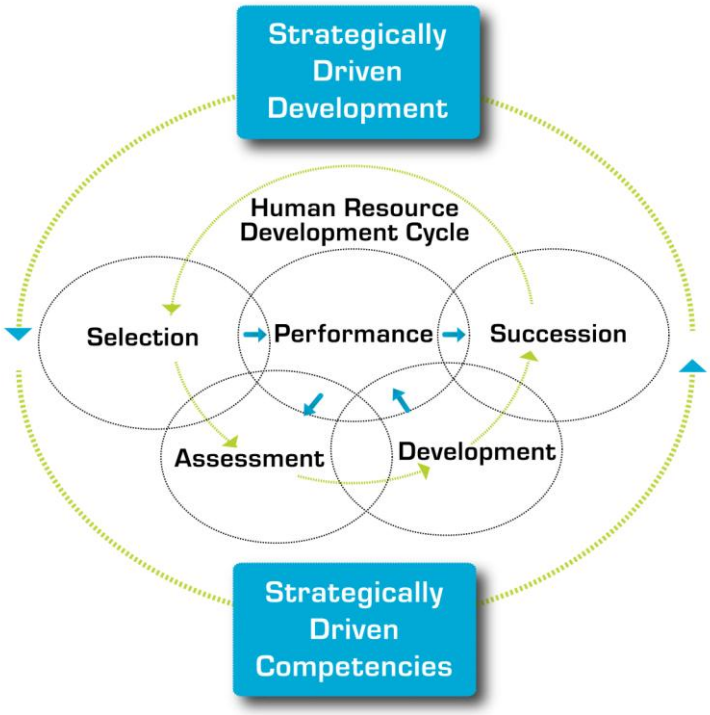


Figure 7 Strategic approach to competency assessment

3.1.2 Meta-analytic validity generalisation

This criterion-related concurrent validation research essentially involves three domains or umbrella variables and their relation to predicting performance in the workplace. All three domains have been extensively researched in a variety of contexts and organisational settings, and meta-analytic studies covering the subjects abound. Schmidt and Hunter (1977) provided seminal direction in terms of validity generalisation and since then, through meta-analysis and validity generalisation models, it has become possible to draw conclusions from examining the cumulative literature. These conclusions provide basic departure points for future enquiry and hence also for this particular study. The contribution of this study would be to reveal its own story from within and outside the collage of existing evidence.

Schmidt and Hunter (1998) conclude that broad consensus has been reached in two areas. Firstly, cognitive ability appears to be a relevant predictor of job performance across virtually every job studied.[31] Secondly, there are broad personality traits that show generalisable validity across a wide range of jobs. Schmidt and Hunter (1998), in meta-analyses on validation studies conducted since 1978, published the

[31] See Hunter and Hunter, 1984; Nathan and Alexander, 1988; McHenry, Hough, Toquam, Hanson & Ashworth, 1990; Ree & Earles,1994; Schmidt, Hunter & Outerbridge, 1986; Barrick & Mount, 1991 for cornerstone research in this regard.

research findings for the prediction of job performance according to the contribution made by various assessment methods or techniques. These measures and their respective predictive validities are summarised in Table 12.

Table 12. ***Estimated mean predictive validities of personnel measures***

Personnel measures	Validity (r)	Multiple R
Cognitive tests	.51	
Work sample tests	.54	.63
Integrity tests	.41	.65
Conscientiousness measures	.31	.60
Structured employment interviews	.51	.63
Unstructured employment interviews	.38	.55
Job knowledge tests	.48	.58
Job tryout procedure	.44	.58
Peer ratings	.49	.58
Reference checks	.26	.57
Job experience (years)	.18	.54
Biographical data measures	.35	.52
Assessment centers	.37	.53
Years of education	.10	.52
Interests	.10	.52

Murphy and Bartram (2002) conclude that it is now widely accepted that:

> 1. Professionally developed ability tests, structured interviews, work samples, assessment centres, and other structured assessment techniques are likely to provide valid predictions of future performance across a wide range of jobs and settings;
> 2. The level of validity for a particular test can vary as a function of characteristics of the job (i.e. complexity) or the organisations, but validities are often quite consistent across settings;
> 3. It is possible to identify abilities and broad dimensions of personality that are related to performance in virtually all jobs.

This study operationalises these findings in its research method. It is, however, also clear that throughout the history of personnel selection research, substantial attention has been given to validity research on various *selection techniques* (Hunter & Hunter, 1984; Reilly & Chao, 1984). In recent years though, research and theory development in the prediction of job performance has moved from a focus on the *validity of methods* and techniques, to a focus on the *underlying constructs* – as is done in this research. It is also clear from the literature that standardised measures of ability, skills, and personality are extensively used in personnel assessment, and have been the focus of a substantial body of research (Murphy & Davidshofer, 1998). This research thus benefits, on the input side, from summative generalisation validity research; while on the output side it attempts to contribute to this body of knowledge from both a theoretical and a practical point of view.

3.2 TRENDS IN THE USE OF ASSESSMENTS FOR ADVISOR SELECTION

A 2002 survey by *Development Dimensions International* of 573 organisations revealed future trends in recruiting and selecting individuals, with specific reference to the use of selection instruments and the money organisations are prepared to invest in the process (Bernthal, 2002; CLC, 2003). These trends reveal that organisations plan to increase their spending budgets for automated recruiting and selection methods. With regards to the use of validated psychometric measurements in recruitment and selection, there seems to be a trend toward knowledge tests, performance work sample tests, and ability and motivational fit inventories. These trends are summarised in Table 13.

Table 13. ***Future trends in recruitment and selection***

Most organisations plan to increase the money spent on both recruiting and selecting candidates	On average, 33 % of organisations' HR budget is allocated specifically to recruitment and 18 % is allocated specifically to selection. Over the next two years, when adjusting for normal increases due to cost inflation, 31 % of organisations plan to increase spending for recruitment and 22 % for selection.
Organisations will make greater use of testing methods for selection	Over the next three years, surveyed companies will increase their use of the following selection testing methods: ▪ Knowledge tests – 22 % ▪ Performance/work sample tests – 17 % ▪ Ability tests – 14 % ▪ Motivational fit inventories – 13 %
Organisations are likely to change their approach to recruitment. Selection practices are not likely to change	Organisations perceive their approach to recruitment to be only moderately effective. That said, about 39 % of sampled organisations plan to significantly change their current approach to recruitment while only 26 % plan to change their selection methods.
Organisations will make greater use of behaviour-based interviewing	Nearly 40 % of organisations plan to use behaviour-based interviews more frequently in the future.
Technology will play a greater role in resumé screening and interview selection methods	By 2005, 28 % more organisations will use computerised resumé screening. In addition, 12 % of surveyed companies will make greater use of computer-assisted interviewing

3.3 THE ADVISOR'S COMPETENCY AND COMPETENCE PROFILE

It is accepted that companies should develop a detailed and accurate job profile that identifies the skills and requirements of the posted position. Consistent and specific job descriptions standardise the recruiting process, leveraging greater efficiency in sourcing the best candidates, in turn, allowing companies to hire the most qualified individuals. Once companies define the strict requirements that qualify candidates for financial advisor positions, they must also identify the softer skills and related competencies necessary to succeed at their company. Research suggests that advisor competencies include a strong focus on the ability to build client relationships and, companies aim to hire individuals with a strong set of customer service skills and also seek candidates with specific competencies.

The Corporate Leadership Council (CLC, 2004c) reports the following as important soft skills and competencies for a financial advisor:

- Motivation and "can do" ability
- Relationship building and teamwork
- Presentation style that is resourceful, innovative, flexible, and adaptable
- Culture and fit within the company and within the specific position (strategic and broad application)
- Internal drive
- Relational ability
- Potential for upward mobility, seek to hire high-potential candidates focusing on their position in the next 3 – 5 years
- Demonstrated history of success
- Highly motivated
- Resident of their current community (as an active member) for the past 2 – 3 years to validate an open market from which the advisor will draw clients
- Strong decision-making and problem-solving ability
- Effective verbal and written communication
- Knowledge of financial markets and instruments
- Customer service and presentation skills
- Sales experience skills.

From this list it is clear that the current approach is very much still a smorgasbord of personality, ability, sociographics, biographics, knowledge and skills. It is much more focused on the validity of the selection process *per se* than on the predictive validity of the instruments used. The consulted research is not clear on how the validity of these processes are measured and what the predictive value of the respective process components are. To complicate the matter even further, Pirnie (2000) differentiates between candidates with and candidates without industry experience. This important differentiator is relevant to this study, since it has a financial impact on the training and development of advisors. The validity of this experience discriminator is closely related to the organisation's strategic decision on training and development. The company in question is renowned for its competitiveness in training and developing new advisors. This is, however, detrimental to its attrition rates since other companies that decide to recruit trained advisors, target this company's advisors.

When recruiting advisors from within the industry (experienced), less importance was placed on the three factors *educational training, employment stability,* and *age*. Conversely, when recruiting inexperienced advisors, the *level of sales commissions* and *industry/professional qualification* were viewed as more important. General agreement exists on these generic skills and competencies, but studies do not reveal the intricate details of these competencies – nor do they use a competency framework, as is done in this

study. Table 14 compares these two experience configurations in terms of the ranking (in terms of the perceived importance) of personal attributes required in the respective scenarios.

Table 14. ***Ranking of skills and personal attributes of financial advisors***

Recruits with industry experience	Recruits without industry experience
1. Positive attitude	1. Positive attitude
2. Personal characteristics	2. Personal characteristics
3. Dedication/commitment	3. Dedication/commitment
4. Competency	4. (5) Prior sales experience
5. Prior sales experience	5. Competency
6. Level of sales commission	6. (10) Educational background
7. Driver's licence	7. (9) Employment stability
8. Industry qualification	8. (7) Driver's licence
9. Employment stability	9. (11) Age
10. Education/background	10. (8) Professional qualification
11. Age	11. (6) Level of sales commission

The findings of Pirnie (2000), indicated in Table 15, furthermore illustrate that there may be confusion between activities and competencies on the one hand, and skills and abilities which are mechanistically grouped together on the other. It is thus important to unpack these different categories from the theoretical framework of personality, ability, biographics and sociographics, and to determine their relationship to job success

Table 15. ***Anticipated skills and activities of successful financial advisors***

Activities	Skills and abilities
1. Prospecting	1. Goal oriented
2. Fact finding (needs analysis)	2. Communication skills
3. Selling and closing	3. Perseverance
4. Administrating	4. Interpersonal skills
5. Planning and goal setting	5. Ethical personal attitude
6. Personal and business development	6. Independence and self reliance
	7. Understand and apply procedures
	8. Ability to control situation
	9. Time management

3.4 THREE DOMAINS IN THE MAKE-UP OF A SUCCESSFUL ADVISOR

According to White (2003) the traits of an ideal advisor fall into several broad categories. These categories (summarised in Table 16) include personality traits, demographics, motivational and interpersonal traits, and product belief. The list of traits mentioned as possible success drivers – and its configuration – confirms the smorgasbord approach that currently exists, and highlights the need to clearly unpack the different domains in terms of personality (competency), ability, and demographics (bio- and sociographics). The success of an advisor recruitment program is a function of how integrated these three domains are utilised in the selection process.

Table 16. ***The current smorgasbord of traits of successful advisors***

• Personality traits
  ➢ Ethical/honest/moral
  ➢ Coachable
  ➢ Competency (competent)
  ➢ Aggressive/assertive
  ➢ Ambitious
  ➢ Energetic/sense of urgency
  ➢ Intelligent
  ➢ Enthusiastic
  ➢ Responsible
  ➢ Driven
  ➢ Strives for excellence
• Demographics
  ➢ History of success
  ➢ Natural market (s)
	• Demographics (cont.)
	  ➢ Motivational
	  ➢ Financial stability/resources
	• Motivational
	  ➢ Self-motivated
	  ➢ Desire and motivated to be successful
	  ➢ Desire for money
	  ➢ Hard worker
	  ➢ Desire to be paid according to worth
	• Interpersonal traits
	  ➢ Meets people easily
	  ➢ Articulate/communicative
	  ➢ Persuasive
	• Product belief
	  ➢ Believes in life assurance

3.4.1 Personality and advisor success

The competency model, applied to the world of work of the advisor raises, the question as to what its relationship is with the psychological constructs of personality. A competency, according to Kurz and Bartram (2002),

> …is a 'construct that represents a constellation of the characteristics of the person that result in effective performance in his or her job. The various uni-dimensional psychological characteristics that underpin competencies can be considered as components of these constellations. The main factor that distinguishes a competency from other weighted composites of psychological constructs is the fact that a competency is defined in relation to its significance for performance at work, rather than its content in purely psychological terms. It differs from constructs such as abilities or personality traits, which are uni-dimensional and defined as characteristics of the person, that "exist" and can be measured in isolation from a work context" (p. 229).

Despite the considerable confusion and disagreement about what competencies are and how they should be measured, Shippman (et al., 2000) note that there is evidence of increasing rigour in applying the competency approach. Testimony to this confusion are the abovementioned eclectic attempts at defining the profile of an advisor, found in the literature. Currently multiple generic personality models exist for the recruitment of financial advisors. These instruments include (besides the OPQ32i used in this study), LIMRA's CP+, Dave Barnett's Sales Map Test, Thomas International's DISC analysis, Saville Consulting's WAVE assessment, the Hogan assessment battery, the Kolbe Index and other instruments applied to sales positions, like the 16PF. These instruments (some of which are online) measure sales aptitude and quotient, and give candidates a score on a continuum, which is considered a reasonably accurate predictor of performance. There is also an emerging body of knowledge that indicates that Emotional Intelligence (EQ) could also be a good predictor of sales success (Van der Merwe, Coetzee & de Beer, 2005).

3.4.2 Cognitive ability and advisor success

Schmidt and Hunter (1998), after reviewing 85 years of research on the validity and utility of selection methods, and concluded that cognitive ability tests, work samples, measures of conscientiousness and integrity, structured interviews, job knowledge tests, biographical data measures and assessment centres all consistently showed validity as predictors of job performance. This was confirmed by Murphy and Bartram (2002) in a comprehensive that study showed that (1) professionally developed ability tests, structured interviews, work samples, assessment centres and other structured assessment techniques are likely to provide valid predictions of future performance across a wide range of jobs and settings; (2) the level of validity for a particular test can vary as a function of the job (i.e. complexity), but validities are often reasonably consistent across settings; and (3) it is possible to identify abilities and broad dimensions of personality that are related to performance in virtually all jobs.

3.4.3 Biographical and sociographical variables and advisor success

Pszeniczny (2004) confirmed that an extensive testing program to screen suitable candidates is paramount to advisor retention, as are full time coaches for new recruits. Pszeniczny found that most successful advisors are between 35 and 45 years of age at entry. Despite this biographical predictor it seems that most validation studies only scrutinise *the psychometric inferences of instruments* utilised in the recruitment and selection processes, and *biographical variables* are not subjected to scrutiny as possible predictors of success. These factors (i.e. age) are utilised in a business-specific manner and as a pre-screening method. A possible reason for this exclusion is that it is country and industry specific – licensing financial advisors is only now becoming a legislative requirement in South Africa, compared to other countries. It is also a function of the organisation's focus in its new talent acquisition – is the organisation looking for experienced advisors, or is it prepared to train advisors from scratch? It seems that these background variables are a function of availability as well as organisational demands.

The contention of this study is that the validation of biographical and sociographical variables can substantially increase the competitive position of the company. This study included some of these variables (summarised in Table 2) firstly to expand on the knowledge base pertaining to the relationship between biographical variables and performance; and secondly because it is a requirement of business to translate the biographical *manspec* decision into profitability. Thirdly, given South African Employment Equity legislation it is important to validate these biographical requirements as being integral to the requirements of the job, otherwise it could be regarded as unfair discrimination. But more important is the fact that assurance companies in general are struggling to access the new, upcoming black middle class as a growing consumer base. It is therefore paramount that recruitment models should constantly be validated to acknowledge these changing demands in the distribution of assurance products.

Corresponding South African figures are difficult to obtain, but the similarities with the American Hispanic market is evident with regards to the major growth potential in traditional minority markets. According to Moya (2004):

> At 40 million the number of Hispanics in the US is bigger than the entire population of Canada. Hispanics accounted for more than 50% of the entire nation's growth during the last 3 years. By 2015 one in 6 Americans will be of Hispanic descent. Second the need is there. Hispanics have strong family and spiritual values. Thirdly, the disposable income exists. While Hispanics lag behind non-Hispanics in household income, they are increasing their earning power at a faster rate (6.1%) than non-Hispanics (2.7%) since 1998. Hispanic buying power was $582 billion in 2003 and it is estimated that this will increase to $975 billion by 2007. The myth that Hispanics are poor and uneducated is exactly that – a myth.

It is generally accepted that the use of selection instruments and other biographical specifics in the recruitment of advisors is part of the recruitment and selection process. Retaining these individuals post-appointment, though, can be jeopardised by the lack of other retention-driving factors. LIMRA (1997) mentions 18 factors (indicated in Table 17) that increase producer retention rates. It is evident that validated selection tools are not only integral to the selection process, but also to the retention strategy and human resource development strategy at large.

Table 17. ***Process and measurement factors that increase retention rates***

Recruiting:
Factor 1 – Create a clear picture of the producer you seek
Factor 2 – Rely primarily on personal recruiting resources
Factor 3 – Use a wide variety of recruiting resources
Factor 4 – Keep a steady candidate flow
Selecting:
Factor 5 – Use a standard selection process
Factor 6 – Use validated selection tools
Factor 7 – Use many selection steps
Factor 8 – Present the career realistically
Factor 9 – Base selection on facts, ethics, and culture fit
Factor 10 – Have at least 12 recruits per opening
Factor 11 – Screen for past success and natural markets
Factor 12 – Require a market opinion survey as part of pre-contract activity
Managing:
Factor 13 – Set high expectations
Factor 14 – Focus through delegation
Factor 15 – Build your bench strength
Training:
Factor 16 – Encourage mentoring
Factor 17 – Provide a strong training program
Factor 18 – Foster self-development

3.5 THE VALIDATED COMPETENCY-BASED MODEL

This validation study occupies itself with the first two steps of the abovementioned process (recruiting and selecting), but intends to not only validate the instruments or selection tools used (Factor 6 above), but also to clarify the biographical make-up of the possible future producer (Factor 1 above). A basic assumption for a recruiting model (Factor 1 above) and a criterion-related validity study is a sound

analysis of the position in question (Cascio, 1998; SIOPSA, 1998). The operationalisation of job analysis can be traced back to McCormick (1959) who first coined the term *job component validity.* This term was used to describe an inference of test validity given the empirical relationships between test constructs and job analytic data, based on the *gravitational hypothesis.* The Position Analysis Questionnaire (PAQ) and the Occupational Information Network (O*NET) are examples of job analysis technologies. Currently, a multitude of job analysis instruments exist and predictions are linked to commercially available tests.

In this study, a job analysis was done using the *Work Profiling System* (Saville & Holdsworth, 2001) in order to crystallise predictors in terms of the competency-based framework and the Person Job Match report. This methodology is essentially a competency profiling system which complements other forms of job analysis (Shippman et al., 2000). According to Kurz and Bartram (2002) it differs from job analysis in that the focus of the former is on the desirable and essential behaviours required to perform a job, while the latter competency profiling method provides a person specification, and the job analysis provides a job description. The main advantage of the competency modelling approach seems to be its success in building models for organisation-wide integrated human resource management.

With regards to the job analysis process in the recruitment of advisors, most models deal with how to get the right prospects by following a process, of which a thorough job analysis is the universal departure point, and a psychometric assessment is one part of the process. The Corporate Leadership Council (CLC, 2004b) suggests standardised processes that include the following steps:

1. Create an accurate job profile;
2. Develop a sourcing strategy;
3. Screen the applicant pool;
4. Conduct interviews and assessments;
5. Negotiate and extend an offer.

This process is in line with the theoretical demands for conducting validation studies (SIOPSA, 1998). This research project does not intend to report on the various processes or steps harnessed in the recruiting process, it is assumed that these (or some processes) are in place and that the psychometric instrument forms part of the process (and as such contributes to the overall predictability of the whole recruitment process). This study focuses on the specific requirements of the job as determined by a job analysis, and how the psychometric instruments (in this case the OPQ32i and VC1.1 assessments) and biographical components predict success in the job. According to Fisher, Schoenfeldt and Shaw (1999), the basic job analysis process consists of ten steps, which can be grouped into the four major phases shown in the Table 18 (McCormick, 1983; Anastasi & Urbina, 1997).

Table 18. ***Job analysis theoretical framework used for building the current model***

PHASE 1	PHASE 2	PHASE 3	PHASE 4
Determine the scope of the project	*Methods of job analysis*	*Data collection and analysis*	*Assessing job analysis methods*
▪ Decide on the purposes of project ▪ Decide which jobs to include	▪ Decide which types of data are needed ▪ Identify sources of job data ▪ Select specific procedures (techniques) of job analysis	▪ Collect job data ▪ Analyse data (validity issues) ▪ Report results to the organisation (criteria issues) ▪ Recheck job analysis data	▪ Evaluate results against criteria of benefits, costs and legality (prediction models)

The job analysis mentioned above finds itself at phase 3 – *Data collection and analysis*. The assumption would be that after following the prudent job analysis process, the competency framework should be an accurate portrayal of the competencies needed to fulfil the requirements of the advisor position. The question, however, is to what extent the candidates who meet the requirements of the job and are recruited, go on to be successful as advisors. This study thus moves beyond the job analysis *per se* to phase 4 (see Table 19) to access the *predictive validity* of this job analysis and to add other biographical variables.

The competency profile that emerged from the job analysis is a direct function of the OPQ32i and the 32 dimensions it measures. It disperses the 20 competencies according to the varying criticality levels of each competency in fulfilling the requirements of the job, as illustrated in Table 19. Criticality is a function of how important a particular activity is to meeting the requirements of the job and the amount of time spent doing the activity. The applicant's score on the various factors of the OPQ32i are then translated into the competency language; the respective importance levels according to the job analysis model are applied and interpreted in terms of the Universal Competency Framework job profile.

Table 19. ***Competency framework for an advisor derived from a job analysis***

1. Leading and Deciding					
Importance Level		Baseline	Moderate	High	Extreme
1.1	Deciding and Initiating Action				
1.2	Leading and Supervising				
2. Supporting and Co-operating					
Importance Level		Baseline	Moderate	High	Extreme
2.1	Working with People				
2.2	Adhering to Principles and Values				
3. Interacting and Presenting					
Importance Level		Baseline	Moderate	High	Extreme
3.1	Relating and Networking				
3.2	Persuading and Influencing				
3.3	Presenting and Communicating Information				
4. Analysing and Interpreting					
Importance Level		Baseline	Moderate	High	Extreme
4.1	Writing and Reporting				
4.2	Applying Expertise and Technology				
4.3	Analysing				
5. Creating and Conceptualising					
Importance Level		Baseline	Moderate	High	Extreme
5.1	Learning and Researching				
5.2	Creating and Innovating				
5.3	Formulating Strategies and Concepts				
6. Organising and Executing					
Importance Level		Baseline	Moderate	High	Extreme
6.1	Planning and Organising				
6.2	Delivering Results and Meeting Customer Expectations				
6.3	Following Instructions and Procedures				
7. Adapting and Coping					
Importance Level		Baseline	Moderate	High	Extreme
7.1	Adapting and Responding to Change				
7.2	Coping with Pressures and Setbacks				
8. Enterprising and Performing					
Importance Level		Baseline	Moderate	High	Extreme
8.1	Achieving Personal Work Goals and Objectives				
8.2	Entrepreneurial and Commercial Thinking				

3.6 CHAPTER SUMMARY

In terms of the holistic framework for psychological research as highlighted in Figure 9, *Chapter 3* clarified the research questions and validity study techniques in terms of the three domains under investigation (personality, ability, and biographical and sociographical variables). This was done firstly to establish current theory and practice as it relates to the research problem. Secondly, it was done to ensure that data collection techniques adhere to the prescribed protocols for concurrent validity studies *vis-à-vis* the research design. Thirdly, it ensured that the hypothesised competency framework is clarified before commencing with statistical procedures.

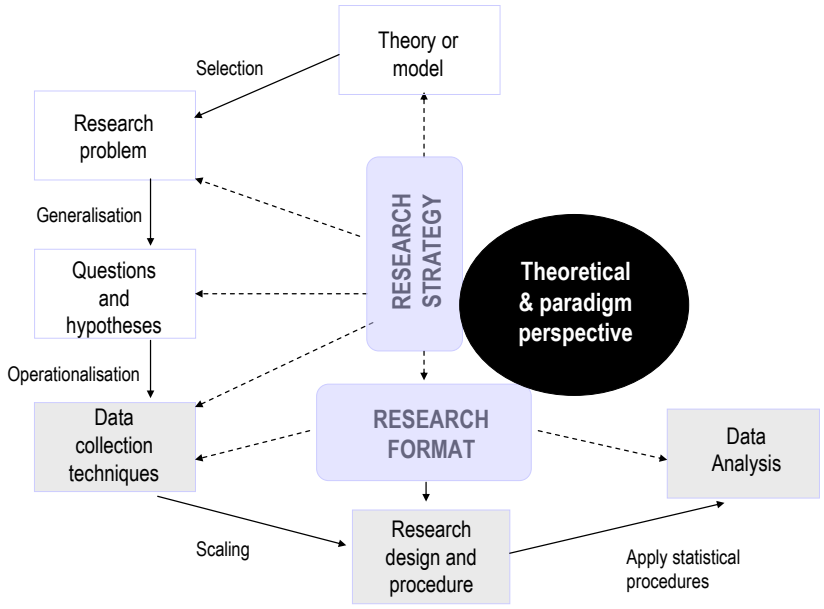


Figure 8. Holistic framework for psychological research: Research format issues

The three domains were scrutinised against current theory and practice. Firstly, the scrutiny interrogated current literature and practice in terms of the predictors used in selecting financial advisors, and the validated instruments used in this process. Secondly, it assessed future trends in the use of validated measurements in advisor selection. It also focused on the contribution that the three domains (personality, ability, and biographical and sociographical variables) make to job success. The chapter culminated in a discussion of the competency profile of a successful financial advisor, as derived from the job analysis process.

Chapter 4 focuses on the quantitative analysis of the data in terms of personality, ability, and biographical and sociographical predictors, and makes inferences from this analysis in terms of job success.

Chapter 4: Data analysis and discussion

This penultimate chapter reports on the quantitative analysis. Firstly, it reports on the reliability of the predictor variables – the OPQ32i and the VC 1.1 questionnaires. Secondly, it reports on the criterion measures – the production data and their semblance of normality, managerial rating on advisors, and the activity measure (number of appointments per day made by advisors). This is then followed by reporting on the three sections of the research question: Firstly, which competencies (personality) are predictors of success (as derived from correlations and by comparing high- and low-performing advisors) and how do the results qualitatively emulate the competency model (as presented in the job analysis)? Secondly, it reports on the relationship between ability scores and success, and the effect when ability *and* personality are combined in the Person Job Match report. Thirdly, biographical and sociographical predictors of success are reported. This is again done by contrasting high- and low-performing advisors.

4.1 RELIABILITY OF PREDICTOR VARIABLES – THE OPQ32i AND VC1.1

Two instruments were utilised as *predictor variables* – the OPQ32i for personality and the VC 1.1 as a measure of ability. The Cronbach alpha[32] coefficient (a) is used to access the internal consistency or the temporal stability of these measuring instruments. Table 20 tabulates the alpha coefficient on the VC 1.1 critical reasoning assessment, and indicates a high level of internal consistency of .89 above the .70 guideline given by Nunnally and Bernstein (1994).

Table 20. ***VC1.1 critical reasoning: Cronbach alpha coefficient (N = 185)***

Ability	Mean	SD	Skewness[33]	Kurtosis[34]	Alpha (a)
VC1.1	36.96	9.88	-0.36	-0.46	0.89

[32] The Statistica electronic manual describes the workings and purpose of the Cronbach Alpha as follows: "If there are several subjects who respond to our items, then we can compute the variance for each item, and the variance for the sum scale. The variance of the sum scale will be smaller than the sum of item variances if the items measure the same variability between subjects, that is, if they measure some true score. Technically, the variance of the sum of two items is equal to the sum of the two variances minus (two times) the covariance, that is, the amount of true score variance common to the two items. We can estimate the proportion of true score variance that is captured by the items by comparing the sum of item variances with the variance of the sum scale. Specifically, we can compute: $a = (k/(k-1)) * [1- S(s^2_i)/s^2_{sum}]$. This is the formula for the most common index of reliability, namely Cronbach's coefficient Alpha (a). In this formula, s^2_i' denotes the variances for the k individual items; s^2_{sum} denotes the variance for the sum of all items. If there is no true score but only error in the items (which is esoteric and unique, and, therefore, uncorrelated across subjects), then the variance of the sum will be the same as the sum of variances of the individual items. Therefore, coefficient Alpha will be equal to zero. If all items are perfectly reliable and measure the same thing (true score), then coefficient Alpha is equal to 1."

[33] The Statistica electronic manual describes *skewness* (the term first used by Pearson, 1905) as a measure of the deviation of the distribution from symmetry. If the skewness is clearly different from 0, then that distribution is asymmetrical, while normal distributions are perfectly symmetrical. Skewness = $n*M_3 /[(n-1)*(n-2)*s^3]$ where M_3 is equal to: $S(x_i-Mean_x)^3$; s^3 is the standard deviation (sigma) raised to the third power; and n is the valid number of cases.

[34] The Statistica electronic manual describes *kurtosis* (the term first used by Pearson, 1905) as a measure of the 'peakedness' of a distribution. "If the kurtosis is clearly different than 0, then the distribution is either flatter or more peaked than normal; the kurtosis of the normal distribution is 0. Kurtosis is computed as: Kurtosis = $[n*(n+1)*M_4 - 3*M_2*M_2*(n-1)] / [(n-1)*(n-2)*(n-3)*s^4]$ where: M_j is equal to: $S(x_i-Mean_x)^j$; n is the valid number of cases; s^4 is the standard deviation (sigma) raised to the fourth power."

The descriptive statistics and alpha coefficients of the OPQ 32i factors are given in Table 21, and illustrate that the majority of the factors demonstrated alpha coefficients above .60. Clark and Watson (1995) regard alpha coefficients above .60 as acceptable when dealing with personality constructs. The only exception was the factor *Evaluative* (.52).

Table 21. *OPQ32i scales: Cronbach alpha coefficients (N = 185)*

Factors		Mean	SD	Skewness	Kurtosis	Alpha
RP1	Persuasive	17.48	3.64	-0.22	-0.28	0.66
RP2	Controlling	12.23	5.26	0.11	-0.54	0.83
RP3	Outspoken	13.22	4.88	0.07	-0.41	0.76
RP4	Independent minded	14.35	3.81	0.28	0.08	0.62
RP5	Outgoing	12.22	4.87	0.26	-0.52	0.78
RP6	Affiliative	13.95	5.06	0.14	-0.75	0.84
RP7	Socially confident	13.43	4.50	-0.16	-0.37	0.78
RP8	Modest	13.57	4.75	-0.01	-0.34	0.80
RP9	Democratic	12.60	3.85	-0.18	-0.58	0.63
RP10	Caring	15.36	4.24	-0.18	-0.42	0.74
TS1	Data rational	12.14	5.02	0.23	-0.22	0.83
TS2	Evaluative	12.63	3.20	0.30	0.60	0.52
TS3	Behavioural	12.75	4.39	0.17	-0.45	0.74
TS4	Conventional	12.23	3.77	-0.01	-0.26	0.66
TS5	Conceptual	11.14	4.45	0.29	-0.31	0.74
TS6	Innovative	12.18	4.88	0.11	-0.16	0.83
TS7	Variety seeking	13.25	3.90	0.21	-0.40	0.63
TS8	Adaptable	13.38	5.06	-0.10	-0.50	0.81
TS9	Forward thinking	13.32	4.47	0.02	-0.51	0.76
TS10	Detail conscious	11.61	4.64	-0.01	-0.87	0.74
TS11	Conscientious	13.70	4.09	0.01	-0.29	0.76
TS12	Rule following	11.86	4.95	0.14	-0.71	0.84
FE1	Relaxed	10.82	4.53	0.03	-0.77	0.76
FE2	Worrying	9.02	4.66	0.39	-0.29	0.81
FE3	Tough minded	11.79	4.06	0.32	-0.30	0.68
FE4	Optimistic	16.59	4.07	-0.45	0.04	0.74
FE5	Trusting	9.83	4.80	0.41	-0.29	0.84
FE6	Emotionally controlled	12.35	4.72	0.41	-0.38	0.78
FE7	Vigorous	13.10	4.07	-0.09	0.22	0.72
FE8	Competitive	15.16	5.61	-0.29	-0.61	0.83
FE9	Achieving	15.76	4.08	-0.07	-0.71	0.69
FE10	Decisive	12.99	5.10	0.28	-0.37	0.81

As mentioned before, the OPQ32i data is converted to 20 competency dimensions, as presented in the OPQ32i Universal Competency Framework (UCF). This is used as the job analysis framework and also in the Person Job Match technology used in selection processes. The quality of the conversion between the OPQ32i and the UCF is important for the quality of the study, since it uses the competency framework as predictor variable when investigating the personality of a successful advisor. The internal consistencies of

the 20 UCF dimensions ranged between .73 and .85, with the majority of dimensions above .80. These consistencies are indicated in Table 22.

Table 22. ***Universal Competency Framework: Cronbach alpha (N = 183)***

Competency	Mean	Min	Max	SD	Alpha
1.1 Deciding and Initiating Action	5.49	1.53	0.10	-0.59	0.82
1.2 Leading and Supervising	5.45	1.44	-0.19	-0.21	0.78
2.1 Working with People	5.34	1.86	0.04	-0.58	0.85
2.2 Adhering to Principles and Values	5.09	1.86	0.13	-0.48	0.82
3.1 Relating and Networking	6.38	1.64	-0.19	-0.09	0.78
3.2 Persuading and Influencing	6.65	1.61	-0.13	-0.35	0.81
3.3 Presenting and Communicating Information	5.90	1.63	-0.25	-0.01	0.81
4.1 Writing and Reporting	4.86	1.66	0.26	0.05	0.75
4.2 Applying Expertise and Technology	4.66	1.76	0.51	0.27	0.81
4.3 Analysing	4.55	1.86	0.40	0.05	0.81
5.1 Learning and Researching	4.43	1.76	0.51	0.29	0.79
5.2 Creating and Innovating	5.10	1.66	0.22	-0.10	0.82
5.3 Formulating Strategies and Concepts	4.83	1.74	-0.15	-0.37	0.78
6.1 Planning and Organising	4.20	1.77	0.14	-0.55	0.81
6.2 Delivering Results and Meeting Customer Expectations	3.93	1.66	0.36	-0.22	0.83
6.3 Following Instructions and Procedures	4.23	1.84	0.34	-0.47	0.83
7.1 Adapting and Responding to Change	5.87	1.53	0.14	-0.44	0.73
7.2 Coping with Pressures and Setbacks	6.12	2.00	-0.08	-0.21	0.81
8.1 Achieving Personal Work Goals and Objectives	4.93	2.07	0.12	-0.63	0.81
8.2 Entrepreneurial and Commercial Thinking	5.63	1.69	-0.03	-0.69	0.84

4.2 RELIABILITY OF CRITERION VARIABLES

The study used two sets of *criteria data* and one self reporting activity measure. The first criterion set was *production data*. The second criterion set consisted of *managerial ratings* on advisor performance according to the 20 competencies in the job analysis competency framework. The third criterion was an activity measure: *How many appointments conducted per day per advisor?* This measure gives a good indication of the most basic and core behavioural (competence) measure of ultimate success – are the advisors seeing enough clients per day to feed the sales pipeline.

4.2.1 Production data and the semblance of normality and reality

Production data per advisor are calculated as the total amount of first year commission that the advisor receives. The percentage commission that an intermediary receives per case written is regulated, and provides a fairly stable criterion of sales performance. As mentioned above, when discussing the sample selection the study looked at advisors with two years' and longer tenure. One calendar year's production was taken as the reference point. This provides a much smoother dispersion of results per advisor by reflecting the seasonal spikes, and of good and bad months alike. Table 23 summarises the production

data of the sample. The mean income per annum was approximately R261 254, with a standard deviation of approximately R199 434.

Table 23. ***Descriptive statistics: Production (N = 183)***

	Mean	Median	Min	Max	SD
Production (Rand)	522507.72	412344.49	30462.97	3197179.23	398868.28
Income split (Rand)	261253.86	206,172.25	15,231.49	1,598,589.62	199,434.14

The amount of commission earnings of a consultant is determined by the "split" with the bank. In this case the split is 50%, which in terms of the above indicates that the *mean* income (R206 172.25) of the sample is just over the minimum sustainable production requirement for an advisor in this operation (R200 000 per annum). The *median* income is just over R206 000 per annum, which indicates that almost half the sample (49.73%) are not earning sustainable incomes according to the business requirements. This partly explains the high attrition levels generally occurring in the industry. The international average for salesperson attrition (combined voluntary and involuntary) in 2005 was 48.7% (Dickie & Trailer, 2005). It thus seems that the sample – with regards to income dispersion – approximates what one would expect from a distribution channel.

Table 24 illustrates the percentage of the total commission income the various groups of advisors contribute. The high performers (quartiles 3&4) account for 76% of total business, and the bottom performers (Q1&Q2) for the remaining 24%. The top quartile advisors account for 50% of the total business and have a mean income of R513 459 per annum, compared to the bottom quartile's annual income of R85 478.00. The sample does not emulate a 80/20 Pareto[35] principle; which – if applied here – would imply that 20% of the advisors would contribute 80% of the production. The ratio is 50/75, that is the high 50% contributes 75% of the business.

Table 24. ***Percentage of total commission income per advisor groups***

% of Advisors (n=183)	Mean income per quartiles	% of total business (2005)
High 50% (Q3&Q4)		75.65%
Bottom 50% (Q1&Q2)		24.35%
High 25% (Q4)	R513 459.00	49.93%
Bottom 25% (Q1)	R85 478.00	
Q2	R170 342.00	
Q3	R270 254.00	
High 10%		27.50%
High 20%		43.49%
High 30%		55.88%
High 40%		66.95%

[35] According to Evans and Olson (2000) the *Pareto Distribution* describes phenomena in which a small proportion of items accounts for a large proportion of some characteristic. For example, a small number of cities constitute a large proportion of the population. Other examples include the size of companies, personal incomes, and stock price fluctuations.

4.2.2 Number of appointments per consultant per day

The third criterion measurement *number of appointments per day* was supplied by advisors themselves as part of the biographical questionnaire. The question could be asked why one should regard it as a reliable measure as well, and to what extent it approximates the total population (N=695). The number of appointments that advisors conduct per day is regarded as the ultimate heuristic for success in a sales environment. It is the cumulative observable statistic that indicates (besides behavioural predispositions to the job), also the execution of these characteristics, that ultimately results in the number of sales made. *Five appointments per day* is the generally accepted minimum benchmark for advisors, and these face-to -face appointments occur at various points in the sales cycle.

According to Dickie and Trailer (2005) these calls are at the different stages of the sales pipeline. It could be *contact calls* with clients of which approximately 50% agree to an initial meeting. It could be *initial meetings*, of which another approximately 50% agree to a presentation. It could be meetings involving the making of a *presentation*, of which approximately 30% will ultimately buy. Lastly, it could be meetings involving a *formal proposal,* of which approximately 50% will buy. Dickie and Trailer (2005) confirm that the majority of companies indicate that it takes between 3 and 5 calls to conclude a sale, and that the combined strike rate for presentations and proposals is between 3 and 5 – for every ten people who receive a presentation or formal proposal, between 3 and 5 will buy. It is clear that success in the sales environment is a numbers game managing a constant pipeline of new prospects coming into the funnel, and reducing those numbers as the sales process progresses, until the final sale. The number of appointments per day is thus a critical indicator of activity and ultimately of sales success. These appointments account for between 30 and 50% of advisors' available time; the remainder of available time is spent on other supporting functions, as is illustrated in Figure 10.

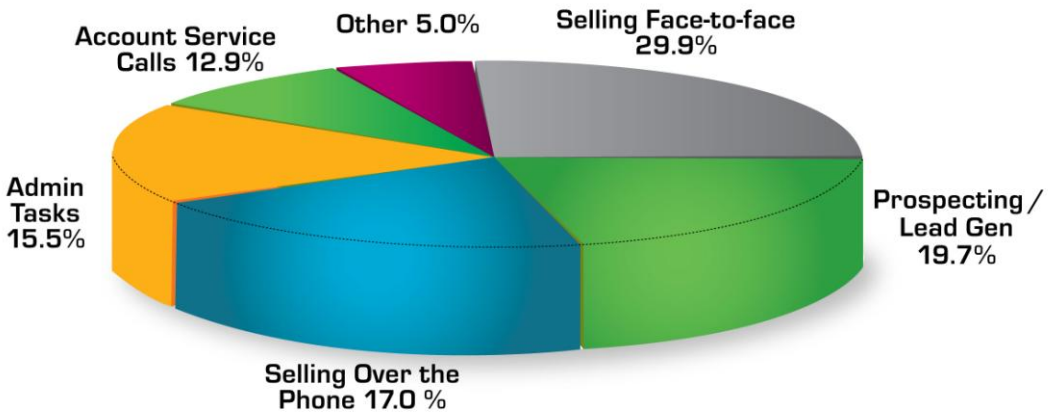


Figure 9. International survey: Sales representative time allocation

Table 25 indicates that the mean for the sample is 5.02 appointments per day, with the median at 4 appointments per day. Although the dispersion is positively skewed, the mean number of appointments done per day is the minimum of what one would expect from a Bancassurance distribution channel that intends to be sustainable.

Table 25. ***Number of appointments per day, per advisor (N = 183)***

	Mean	Median	Min	Max	SD
No of appointments per day	5.02	4.00	1	55	5.69

The difference between high-performing advisors and low-performing advisors on this metric is statistically significant at the 91% level of significance (p = .09; t = -1.73). The average daily appointment rate and the standard deviation for *high-performing advisors* (mean = 7.29; SD = 10.57) is markedly higher than those of *low-performing advisors* (mean = 4.44; SD = 3.08). The difference between high- and low-performing advisors is exceeds two appointments per day. Per work week, high-performing advisors thus see ten people more than low-performing advisors. This could amount to as many as 3 to 5 more sales being concluded per week by high-performing advisors. A critical predictor of success should thus be the ability of the advisor to sustain these activity levels. The histogram (Figure 11) of the number of appointments per day indicates a slightly positive skewedness. The magnitude of this activity difference is evident in the disparity between the percentage of total business (76%) that high-performing advisors account for, and the 24% accounted for by low-performing advisors.

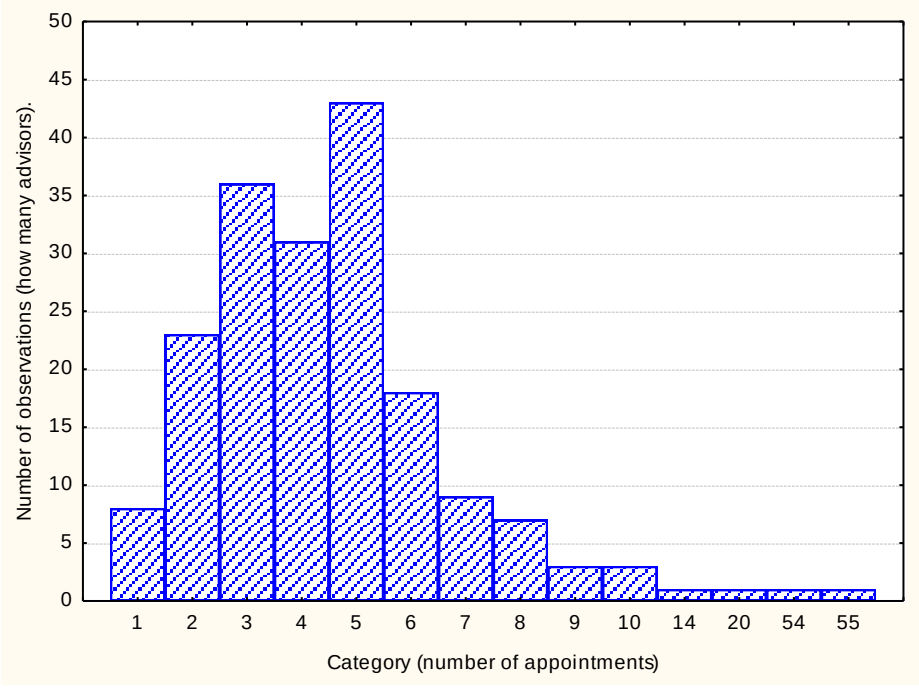


Figure 10. Histogram: Number of appointments per day, per advisor

4.2.3 Managerial ratings of advisors' behaviour

Managerial ratings of advisors' behaviour were collected on the same 20 competencies utilised in the competency model. The trend reflected in the mean scores illustrates that managers consistently gave high scores to advisors on the 20 competencies (rating above 3). Even with those competencies (i.e. *Writing and Reporting*) being unrelated or of lesser importance to the job requirements, the scores were biased toward the behavioural anchors. Table 26 illustrates the magnitude of this positive bias in a frequency table. Between 72 % and 95 % of advisors were consistently rated in the range 3 to 5 (*adequate* to *outstanding performance*) on the 20 competencies. This positive bias or restriction of range could be due to the fact that preselection had already taken place in the appointment of advisors. However, even if preselection had taken place, one would expect a larger range (discriminant validity) when managers rate their advisors. This positive bias could also be due to rater errors, or the full scale of the questionnaire items not being used.

Table 26. ***Frequency table: UCF ratings done by managers on advisors (N = 185)***

Rating	**Definition**			
1 Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.			
2 Below average performance	The employee's performance of the activity is below standard, must still improve, and does not always meet expectations.			
3 Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations.			
4 Above average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.			
5 Outstanding performance	The employee's performance of the activity is excellent, superior, and remarkable.			
Competency	**Percentage advisors per rating category**			
Rating Scale	1 to 2	3	4 to 5	3 to 5
1.1 Deciding and Initiating Action	17.84	32.97	49.19	82.16
1.2 Leading and Supervising	27.57	36.76	35.67	72.43
2.1 Working with People	9.78	33.7	56.52	90.22
2.2 Adhering to Principles and Values	4.32	22.7	72.98	95.68
3.1 Relating and Networking	9.73	35.68	54.59	90.27
3.2 Persuading and Influencing	18.38	36.22	45.40	81.62
3.3 Presenting and Communicating Information	12.97	36.76	50.27	87.03
4.1 Writing and Reporting	18.38	40.0	41.62	81.62
4.2 Applying Expertise and Technology	14.05	41.62	44.33	85.95
4.3 Analysing	16.76	34.05	49.19	83.24
5.1 Learning and Researching	13.52	41.62	44.86	86.48
5.2 Creating and Innovating	23.78	37.84	38.38	76.22
5.3 Formulating Strategies and Concepts	22.70	42.70	34.60	77.30
6.1 Planning and Organising	21.54	32.43	46.03	78.46
6.2 Delivering Results and Meeting Customer Expectations	12.97	36.22	50.81	87.03
6.3 Following Instructions and Procedures	9.73	23.78	66.49	90.27
7.1 Adapting and Responding to Change	15.22	45.65	39.13	84.78
7.2 Coping with Pressures and Setbacks	21.74	38.04	40.22	78.26
8.1 Achieving Personal Work Goals and Objectives	13.59	34.24	52.17	86.41
8.2 Entrepreneurial and Commercial Thinking	13.59	41.85	44.56	86.41

Adhering to the protocol for validation studies (Cascio; 1998; SIOPSA, 1998), predictor data was collected from the individuals themselves (the respective managers); production data for the corresponding time period were extracted later from the organisation's production database, to prevent managers and test administrators from being biased by pre-knowledge of performance. The managerial ratings were collected at the same time as advisors were completing their assessments, but were done in a different room to the one in which the advisors were being assessed. Managers only did their ratings after they had received a 30-minute briefing/training – mostly one on one and without them being aware of the advisors' predictor results. It was also explained to them that the data were for research purposes, not for performance management purposes, and that performance ratings would not be discussed with the respective advisors. Positive bias could also be possible, since the managers had never used this competency-based vernacular in recruiting advisors. This could have resulted in them not being able to translate consultant behaviour in terms of the competency behavioural descriptors, and hence not being able to discriminate different levels of competence *within* competencies – i.e. not using the full scales. It could also be that the rater training was ineffective.

4.3 PERSONALITY AND THE REQUIREMENTS OF THE POSITION

The analysis of personality and ability data culminated in an iterative process that involved three steps and three different procedures. Firstly, Pearson correlations between personality, ability and production data were conducted on the whole sample (n=183). This confirmed the directionality (positive or negative) of the hypothesised competency model and revealed correlations at different levels of confidence between personality, ability and production. The data obtained from the subset were explored further in terms of effect size, and Cohen's d-statistic revealed differences between performers on ten competencies. It also confirmed the competency model in terms of the weightings given to each competency in the model. The quality and confidence levels of these differences as revealed in the d-statistics, were assessed by means of t-tests between split halves, and between the top and bottom quartiles.

4.3.1 Pearson correlations on the whole sample

Pearson correlations conducted on the *whole sample* (n=183) (as summarised in Table 26) revealed statistically significant correlations at the 95% level of confidence and higher ($p \leq .05$) on the following:

> Positive: Critical reasoning ability;
> Negative: Writing and Reporting ;
> Positive: Entrepreneurial and Commercial Thinking.

With the exception of critical reasoning (medium effect size), the other correlations revealed small effect sizes.

At significance levels between 95% and approaching 90% (0.1 ≥ p ≥ .05) with small effect size, correlations were found on the following competencies:

> Positive: Deciding and Initiating Action
> Negative: Analysing
> Positive: Achieving Work Goals and Objectives

Table 27 summarises all relationships in terms of correlation (r) and significance level (*p*) and highlights the five competencies with statistically significant correlations between personality and production; and ability and production. From these correlations two things were clear. Firstly, the correlations confirm the importance levels of the different competencies, as derived from the job analysis. The competencies with positive correlations receive higher importance ratings on the competency model than those with negative correlations. The question could, however, be asked why, for example, competencies such as *Persuading and Influencing, Relating and Networking* and *Presenting Communicating* do not show statistically significant correlations as well, since most successful advisors should certainly display higher scores on these competencies, and inversely negative correlations on competencies such as *Writing and Reporting,* as per the assumptions of the job analysis model. This highlights the effects of restriction of range in the data, which is typical of concurrent validation studies – participants in the study are already in the validated position and pre-selection has taken place.

Table 27. *Correlations for ability and competencies (N = 183)*

Ability and Competency	Correlation	Significance level (p)
Critical Reasoning Ability (VC1.1)*	**.3396**	**.00**
1.1 Deciding and Initiating Action*	***.1298***	***.08***
1.2 Leading and Supervising	.0854	.25
2.1 Working with People	-.1092	.14
2.2 Adhering to Principles and Values	-.1194	.11
3.1 Relating and Networking	-.0735	.32
3.2 Persuading and Influencing	-.0289	.70
3.3 Presenting and Communicating Information	-.0304	.68
4.1 Writing and Reporting*	**-.2006**	**.01**
4.2 Applying Expertise and Technology	-.1195	.11
4.3 Analysing*	***-.1306***	***.08***
5.1 Learning and Researching	-.0936	.21
5.2 Creating and Innovating	-.0584	.43
5.3 Formulating Strategies and Concepts	-.0479	.52
6.1 Planning and Organising	-.0591	.43
6.2 Delivering Results and Meeting Customer Expectations	-.0823	.27
6.3 Following Instructions and Procedures	-.0322	.67
7.1 Adapting and Responding to Change	-.0744	.32
7.2 Coping with Pressures and Setbacks	-.0025	.97
8.1 Achieving Personal Work Goals and Objectives*	***.1302****	***.08***
8.2 Entrepreneurial and Commercial Thinking*	**.1640**	**.03**

* p ≤ 0.5
** .05 ≤ p ≤ .1

Secondly, a more comparative investigation was needed to distinguish between high performers and low performers in terms of success-predicting competencies. The significant differences between high and low performers *in terms of production* confirmed this. As mentioned above, the high performers (quartiles 3 & 4) account for 76% of the total business, and the low performers (Q1 & Q2) for the remaining 24%. The top quartile (Q4) advisors account for 50% of the total business and have a mean income of R513 459 per annum, compared to the bottom quartile's annual income of R85478.00 which represents the remaining 24% of total business.

4.3.2 Comparing high and low performers with t-tests

Table 28 summarises the results of t-tests that were conducted firstly between the halves (top 50% and bottom 50%) and Table 29 summarises the t-test results of the top 25% and bottom 25%. Each comparison revealed different competencies where statistically significant differences existed between high and low performers. Statistically significant differences ($p \leq .1$) were found between the top 50% performers and bottom 50% on the following competencies (as indicated in Table 28):

1. Deciding and Initiating Action;
2. Adhering to Principles and Values;
3. Writing and Reporting;
4. Analysing;
5. Coping with Pressures and Setbacks;
6. Achieving Personal Work Goals and Objectives;
7. Entrepreneurial and Commercial Thinking.

Table 28. ***t-tests: Top 50% (Q3 & Q4) and bottom 50% (Q1 & Q2) (N = 183)***

Competency	Mean Bottom	Mean Top	t-value	df	p
1.1 Deciding and Initiating Action*	**5.08**	**5.89**	**-3.74**	**181**	**0.00**
1.2 Leading and Supervising	5.30	5.60	-1.42	181	0.16
2.1 Working with People	5.56	5.13	1.57	181	0.12
2.2 Adhering to Principles and Values*	**5.46**	**4.73**	**2.71**	**181**	**0.01**
3.1 Relating and Networking	6.49	6.26	0.96	181	0.34
3.2 Persuading and Influencing	6.65	6.65	-0.02	181	0.99
3.3 Presenting and Communicating Information	5.97	5.84	0.54	181	0.59
4.1 Writing and Reporting	**5.10**	**4.63**	**1.92**	**181**	**0.06**
4.2 Applying Expertise and Technology	4.87	4.46	1.59	181	0.11
4.3 Analysing	**4.78**	**4.32**	**1.70**	**181**	**0.09**
5.1 Learning and Researching	4.58	4.27	1.20	181	0.23
5.2 Creating and Innovating	5.21	5.00	0.85	181	0.40
5.3 Formulating Strategies and Concepts	5.01	4.64	1.44	181	0.15
6.1 Planning and Organising	4.20	4.20	0.01	181	0.99
6.2 Delivering Results and Meeting Customer Expectations	3.90	3.97	-0.27	181	0.79
6.3 Following Instructions and Procedures	4.35	4.12	0.85	181	0.40
7.1 Adapting and Responding to Change	5.99	5.76	1.01	181	0.31
7.2 Coping with Pressures and Setbacks*	**6.45**	**5.79**	**2.25**	**181**	**0.03**
8.1 Achieving Personal Work Goals and Objectives*	**4.43**	**5.43**	**-3.38**	**181**	**0.00**
8.2 Entrepreneurial and Commercial Thinking*	**5.15**	**6.10**	**-3.91**	**181**	**0.00**

Table 29 indicates the t-test results obtained from comparing the top 25% and bottom 25%, and statistically significant correlations ($p \leq .1$) were found on the following competencies:

1. Deciding and Initiating Action;
2. Working with People;
3. Adhering to Principles and Values;
4. Writing and Reporting;
5. Adapting and Responding to Change;
6. Achieving Personal Work Goals and Objectives;
7. Entrepreneurial and Commercial Thinking.

Table 29. ***t-tests:Top 25% (Q4) and bottom 25% (Q1) (n = 90)***

Top 25% (Q4) and Bottom 25% (Q1) (n = 90)					
Competency	**Mean Bottom**	**Mean Top**	**t-value**	**df**	**p**
1.1 Deciding and Initiating Action*	**4.98**	**5.78**	**-2.71**	**88**	**0.01**
1.2 Leading and Supervising	5.31	5.60	-0.91	88	0.37
2.1 Working with People	**5.87**	**5.20**	**1.69**	**88**	**0.09**
2.2 Adhering to Principles and Values	**5.58**	**4.91**	**1.63**	**88**	**0.10**
3.1 Relating and Networking	6.62	6.09	1.52	88	0.13
3.2 Persuading and Influencing	6.56	6.44	0.31	88	0.76
3.3 Presenting and Communicating Information	5.82	5.60	0.58	88	0.56
4.1 Writing and Reporting*	**5.09**	**4.31**	**2.33**	**88**	**0.02**
4.2 Applying Expertise and Technology	4.71	4.24	1.29	88	0.20
4.3 Analysing	4.58	4.02	1.50	88	0.14
5.1 Learning and Researching	4.51	4.13	1.06	88	0.29
5.2 Creating and Innovating	5.31	5.02	0.84	88	0.40
5.3 Formulating Strategies and Concepts	5.09	4.53	1.50	88	0.14
6.1 Planning and Organising	4.42	4.20	0.62	88	0.54
6.2 Delivering Results and Meeting Customer Expectations	4.02	4.04	-0.06	88	0.95
6.3 Following Instructions and Procedures	4.40	4.36	0.11	88	0.91
7.1 Adapting and Responding to Change*	**6.40**	**5.80**	**2.06**	**88**	**0.04**
7.2 Coping with Pressures and Setbacks	6.22	5.84	0.96	88	0.34
8.1 Achieving Personal Work Goals and Objectives*	**4.49**	**5.58**	**-2.55**	**88**	**0.01**
8.2 Entrepreneurial and Commercial Thinking*	**5.11**	**6.13**	**-3.07**	**88**	**0.00**

The nine competencies where statistically significant differences were revealed by t-tests on *both* top and bottom *quartiles*, and top and bottom *halves* combined, were the following:

1. Deciding and Initiating Action;
2. Working with people;
3. Adhering to Principles and Values;
4. Writing and Reporting;
5. Analysing;
6. Adapting and responding to Change;
7. Coping with Pressures and Setbacks;
8. Achieving Personal Work Goals and Objectives;
9. Entrepreneurial and Commercial Thinking.

In order to remove the effects of the sample size from the comparative calculations (t-tests) above further investigations were done using d-statistics.

4.3.3 Comparing high and low performers in terms of d-statistics

The quartiled judgemental sample was scrutinised by revisiting the descriptive delta (d) statistics that take out the effects of sample size and indicate effect size, or the distance between the two groups (Q1 & Q4) on the various competencies. According to Cohen (1988) the d-statistic is:

> … [A] "pure" number… with which to index what can alternatively be called the degree of departure from the null hypothesis of the alternate hypothesis, or the ES (effect size) we wish to detect. This is accomplished by standardizing the raw effect size as expressed in the measurement unit of the dependent variable by dividing it by the (common) standard deviation of the measures in their respective populations, the latter also in the original measurement unit… The use of **d** is not only a necessity demanded by the practical requirements of table making, but proves salutary in those areas of the behavioral sciences where raw units are used which are arbitrary or lack meaning outside the investigation in which they are used, or both (p. 20).

Since Cohen (1988) brought attention to effect size, it has become convention to report on both statistical significance and effect sizes for practical significance in behavioural science research. However, as with many conventions the convention *per se* becomes normative and could over time easily be regarded as a logical replacement for the pre-conventional opinion, instead of providing a logical complement to it. It is thus worthwhile to discuss the d-statistic (as a measure of ES and its interplay *with* statistical measures of significance) in more detail at this point, since it forms an integral part of the qualitative interpretation of the research results in terms of the hypothesised competency model of an advisor.

Cohen's (1988) d-test provides a value referring to power tables that combine gamma (effect size) and sample size (N). Becker (1999) defines effect size as a name given to a family of indices that measure the magnitude of a treatment effect. Unlike significance tests, these indices are *independent* of sample size. In an attempt to clarify this issue, Becker (id.) provides a lucid summary and organisation of ES measures and mentions that in general, ES can be measured in two ways: Firstly, as the standardised difference between two means, or secondly as the correlation between the independent variable classification and the individual scores on the dependent variable. This correlation is called the "effect size correlation" (Rosnow & Rosenthal, 1996). Becker (id.) discusses Cohen's d and the procedures to calculate it. Secondly, the interpretation of the d-statistic in terms of measures of overlap and percentile standings is explained, followed by an explanation of Hedges' *g*, and Glass's[36] delta. Finally, the correlation measures of ES, and the relationship between *d*, r and r^2 is summarised. These summaries are provided in Tables 30 to 35.

[36] The observant reader would immediately spot the anomalous difference in the spelling of the *Glass's,* and *Hedges'*, and wonder why the apostrophe *Hedges's* is not used. The reason is that when pronouncing *Hedges*, the final "s" sounds like a "z", hence the apostrophe s is dropped. This is in contrast with *Glass*, where the final "s" does not sound like "z", and the apostrophe "s" is retained. This coincidental consecutive occurrence of these two words, illustrates this interesting rule in the English language.

Table 30. ***Cohen's d***

$d = M_1 - M_2 / \sigma$ [37] **where** $\sigma = \sqrt{[\sum(X - M)^2 / N]}$ **where X is the raw score, M is the mean, and N is the number of cases.**	Cohen (1988) defined *d* as the difference between the means, $M_1 - M_2$, divided by the standard deviation, s, of either group. Cohen argued that the standard deviation of either group could be used when the variances of the two groups are homogenous. In meta-analysis the two groups are considered to be the experimental and control groups. By convention the subtraction, $M_1 - M_2$, is done so that the difference is positive if it is in the direction of *improvement* or in the predicted direction and negative if it is in the direction of *deterioration* or opposite to the predicted direction. *d* is a descriptive measure.
$d = M_1 - M_2 / \sigma_{pooled}$ $\sigma_{pooled} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]}$	In practice, the pooled standard deviation, s_{pooled}, is commonly used (Rosnow & Rosenthal, 1996). The pooled standard deviation is found as the root mean square of the two standard deviations (Cohen, 1988, p. 44). That is, the pooled standard deviation is the square root of the average of the squared standard deviations. When the two standard deviations are similar, the root mean square will not differ much from the simple average of the two variances.
$d = 2t / \sqrt{(df)}$ **or** $d = t(n_1 + n_2) / [\sqrt{(df)}\sqrt{(n_1 n_2)}]$	*d* can also be computed from the value of the *t* -test of the differences between the two groups (Rosnow & Rosenthal, 1996). In the equation to the left "df" represents the degrees of freedom for the *t*-test. The "n's" are the number of cases for each group. The formula without the n's should be used when the n's are equal. The formula with separate n's should be used when the n's are not equal.
$d = 2r / \sqrt{(1 - r^2)}$	*d* can be computed from r, the ES correlation.
$d = g\sqrt{(N/df)}$	*d* can be computed from Hedges' *g*.

Table 31. ***Interpreting Cohen's d***

Cohen's Standard	Effect Size	Percentile Standing	Percent of Non-overlap
	2.0	97.7	81.1%
	1.9	97.1	79.4%
	1.8	96.4	77.4%
	1.7	95.5	75.4%
	1.6	94.5	73.1%
	1.5	93.3	70.7%
	1.4	91.9	68.1%
	1.3	90	65.3%
	1.2	88	62.2%
	1.1	86	58.9%
	1.0	84	55.4%
	0.9	82	51.6%
LARGE	**0.8**	**79**	**47.4%**
	0.7	76	43.0%
	0.6	73	38.2%
MEDIUM	**0.5**	**69**	**33.0%**
	0.4	66	27.4%
	0.3	62	21.3%
SMALL	**0.2**	**58**	**14.7%**
	0.1	54	7.7%
	0.0	50	0%

[37] Differences in font are clear in these tables. This is due to the fact that the *Arial* font does not contain all statistical symbols in its character library, hence the decision to revert to *Times New Roman.*

Cohen (1988) hesitantly defined effect sizes as "small, d < 0.2"; "medium, 0.2 < d ≤ 0.5," and "large, d ≥ 8", stating that "there is a certain risk inherent in offering conventional operational definitions for those terms, for use in power analysis in as diverse a field of inquiry as behavioral science" (p. 25).

Effect sizes can also be thought of as the average percentile standing of the average treated (or experimental) participant relative to the average untreated (or control) participant. An ES of 0.0 indicates that the mean of the treated group is at the 50th percentile of the untreated group. An ES of 0.8 indicates that the mean of the treated group is at the 79th percentile of the untreated group. An effect size of 1.7 indicates that the mean of the treated group is at the 95.5 percentile of the untreated group.

Effect sizes can also be interpreted in terms of the percent of non-overlap of the treated group's scores with those of the untreated group, (see Cohen, 1988, pp. 21 – 23 for descriptions of additional measures of non-overlap). An ES of 0.0 indicates that the distribution of scores for the treated group overlaps completely with the distribution of scores for the untreated group, there is 0% of non-overlap. An ES of 0.8 indicates a non-overlap of 47.4% in the two distributions. An ES of 1.7 indicates a non-overlap of 75.4% in the two distributions.

Table 32. ***Hedges' g***

$g = M_1 - M_2 / S_{pooled}$ **where** $S = \sqrt{[\sum(X - M)^2 / N\text{-}1]}$ **and** $S_{pooled} = \sqrt{MSwithin}$	Hedges' *g* is an inferential measure. It is normally computed by using the square root of the Mean Square Error from the analysis of variance testing for differences between the two groups. Hedges' *g* is named after Gene V. Glass, one of the pioneers of meta-analysis.
$g = t\sqrt{(n_1 + n_2)} / \sqrt{(n_1 n_2)}$ **or** $g = 2t / \sqrt{N}$	Hedges' *g* can be computed from the value of the t-test of the differences between the two groups (Rosnow & Rosenthal, 1991). The formula with separate n's should be used when the n's are not equal. The formula with the overall number of cases, N, should be used when the n's are equal.
$\sigma_{pooled} = S_{pooled} \sqrt{(df / N)}$ **where df = the degrees of freedom for the MS error, and N = the total number of cases**	The pooled standard deviation, s_{pooled} , can be computed from the unbiased estimator of the pooled population value of the standard deviation, S_{pooled} , and vice versa, using the formula on the left (Rosnow & Rosenthal, 1991, p. 334).
$g = d / \sqrt{(N / df)}$	Hedges' *g* can be computed from Cohen's d.
$g = [r / \sqrt{(1 - r^2)}] / \sqrt{[df(n_1 + n_2) / (n_1 n_2)]}$	Hedges' *g* can be computed from r, the ES correlation.

Table 33. ***Glass's delta***

$\Delta = M_1 - M_2 / \sigma_{control}$	Glass's delta is defined as the mean difference between the experimental and control group divided by the standard deviation of the control group.

Table 34. ***Correlation measures of effect size: The effect size (ES) correlation*****, $r_{Y\lambda}$**

$r_{Y\lambda} = r_{dv,iv}$	The effect size correlation can be computed directly as the point-biserial correlation between the dichotomous independent variable and the continuous dependent variable.
CORR = dv with iv	The point-biserial is a special case of the Pearson product-moment correlation that is used when one of the variables is dichotomous. As Nunnally (1978) points out, the point-biserial is a shorthand method for computing a Pearson product-moment correlation. The value of the point-biserial is the same as that obtained from the product-moment correlation. You can use the CORR procedure in SPSS to compute the ES correlation.
$r_{Y\lambda} = \Phi = \sqrt{(X^2(1) / N)}$	The ES correlation can be computed from a single degree of freedom Chi-square value, by taking the square root of the Chi-square value divided by the number of cases, N. This value is also known as Phi.
$r_{Y\lambda} = \sqrt{[t^2 / (t^2 + df)]}$	The ES correlation can be computed from the t-test value.
$r_{Y\lambda} = \sqrt{[F(1,\_) / (F(1,\_) + df\ error)]}$	The ES correlation can be computed from a single degree of freedom F test value (i.e. one way analysis of variance with two groups).
$r_{Y\lambda} = d / \sqrt{(d^2 + 4)}$	The ES correlation can be computed from Cohen's d.
$r_{Y\lambda} = \sqrt{\{(g^2 n_1 n_2) / [g^2 n_1 n_2 + (n_1 + n_2) df]\}}$	The ES correlation can be computed from Hedges's g.

Table 35. ***The relationship between d, r and r²***

Cohen's Standard	d	r	r²
	2.0	.707	.500
	1.9	.689	.474
	1.8	.669	.448
	1.7	.648	.419
	1.6	.625	.390
	1.5	.600	.360
	1.4	.573	.329
	1.3	.545	.297
	1.2	.514	.265
	1.1	.482	.232
	1.0	.447	.200
	0.9	.410	.168
LARGE	**0.8**	**.371**	**.138**
	0.7	.330	.109
	0.6	.287	.083
MEDIUM	**0.5**	**.243**	**.059**
	0.4	.196	.038
	0.3	.148	.022
SMALL	**0.2**	**.100**	**.010**
	0.1	.050	.002
	0.0	.000	.0

As noted in the definitions above, *d* can be converted to *r* and vice versa.

For example, the *d* value of .8 corresponds to an *r* value of .371.

The square of the r-value is the percentage of variance in the dependent variable that is accounted for by membership in the independent variable groups. For a *d* value of .8, the amount of variance in the dependent variable by membership in the treatment and control groups, is 13.8%.

In meta-analysis studies *r*s are typically presented rather than r^2.

The results from comparing high- and low-performing advisors (Q4 & Q1) in terms of *d-statistics,* confirmed and articulated the differentiators, initially found by Pearson correlations on the whole sample, and t-tests conducted between different quartiles. The competency model consists of 20 competencies, and differences in terms of the d-statistic were found on ten competencies. The competencies with effect sizes approaching medium effect size and larger, are indicated. The respective d-statistics and effect sizes are indicated in brackets.

1. Deciding and Initiating Action (0.55; medium effect size);
2. Working with People (-0.35; small, and approaching medium effect size);
3. Adhering to Principles and Values (-0.34; small, and approaching medium effect size);
4. Relating and Networking (-0.32; small, and approaching medium effect size);
5. Writing and Reporting (-0.48; small, and approaching medium effect size);
6. Analysing (-0.31; small, and approaching medium effect size);
7. Formulating Strategies and Concepts (-0.31; small, and approaching medium effect size);
8. Adapting and Responding to Change (-0.43; small, and approaching medium effect size);
9. Achieving Personal Work Goals and Objectives (0.52; medium effect size);
10. Entrepreneurial and Commercial Thinking (0.62; medium, and approaching large effect size).

The differences between high and low performers on all competencies in terms of the d-statistic are summarised in Table 36.

Table 36. ***Differences between performers on personality***

Descriptive Statistics High 45 (n = 45)					d-stat	Descriptive Statistics Bottom 45 (n = 45)				
UCF 20 Competency (Personality)	**Mean**	**Min**	**Max**	**SD**		**Mean**	**Min**	**Max**	**SD**	
1.1 Deciding and Initiating Action*	5.78	3	9	1.61	**0.55**	4.98	3	7	1.16	10.43
1.2 Leading and Supervising	5.60	2	9	1.59	0.19	5.31	2	8	1.43	1.16
2.1 Working with People*	5.20	2	8	1.87	**-0.35**	5.87	2	9	1.88	1.43
2.2 Adhering to Principles and Values*	4.91	1	9	1.98	**-0.34**	5.58	2	9	1.90	1.88
3.1 Relating and Networking*	6.09	2	10	1.70	**-0.32**	6.62	2	10	1.61	1.90
3.2 Persuading and Influencing	6.44	3	10	1.66	-0.07	6.56	2	10	1.75	1.61
3.3 Presenting and Communicating Information	5.60	2	8	1.71	-0.12	5.82	1	10	1.92	1.75
4.1 Writing and Reporting*	4.31	1	7	1.50	**-0.48**	5.09	1	9	1.66	1.92
4.2 Applying Expertise and Technology	4.24	2	8	1.67	**-0.27**	4.71	1	10	1.77	1.66
4.3 Analysing*	4.02	1	7	1.71	**-0.31**	4.58	1	10	1.80	1.77
5.1 Learning and Researching	4.13	2	8	1.59	**-0.22**	4.51	1	10	1.79	1.80
5.2 Creating and Innovating	5.02	1	9	1.74	-0.18	5.31	2	8	1.50	1.79
5.3 Formulating Strategies and Concepts*	4.53	1	8	1.67	**-0.31**	5.09	1	9	1.84	1.50
6.1 Planning and Organising	4.20	1	8	1.90	-0.13	4.42	1	7	1.47	1.84
6.2 Delivering Results and Meeting Customer Expectations	4.04	1	8	1.94	0.01	4.02	1	7	1.41	1.47
6.3 Following Instructions and Procedures	4.36	1	8	2.12	-0.02	4.40	1	7	1.59	1.41
7.1 Adapting and Responding to Change*	5.80	2	9	1.44	**-0.43**	6.40	3	9	1.32	1.59
7.2 Coping with Pressures and Setbacks	5.84	2	10	1.98	**-0.20**	6.22	2	10	1.73	1.32
8.1 Achieving Personal Work Goals and Objectives*	5.58	1	9	2.09	**0.52**	4.49	1	10	1.96	1.73
8.2 Entrepreneurial and Commercial Thinking*	6.13	2	9	1.56	**0.62**	5.11	2	8	1.60	1.96

*Small effect size (d< 0.5; r <.243). Medium effect size (0.5 ≤ d ≤ 0.8; .371 < r > .243) is conceived as one which is large enough to be visible to the naked eye. Large effect size (d ≤ 0.8, r < .371) means that the two variables are so separate as to make almost half (47.7%) of their areas not overlapped in terms of measures of non-overlap.

4.3.4 Comparing performers in terms of the Competency Framework

Table 37 summarises the competency scores that participants obtained on the Universal Competency Framework, as derived from the OPQ32i questionnaire.

Table 37. ***Descriptive statistics: Universal Competency Framework (N = 183)***

Competency	Mean	SD	Skewness	Kurtosis
1.1 Deciding and Initiating Action	5.49	1.53	0.10	-0.59
1.2 Leading and Supervising	5.45	1.44	-0.19	-0.21
2.1 Working with People	5.34	1.86	0.04	-0.58
2.2 Adhering to Principles and Values	5.09	1.86	0.13	-0.48
3.1 Relating and Networking	6.38	1.64	-0.19	-0.09
3.2 Persuading and Influencing	6.65	1.61	-0.13	-0.35
3.3 Presenting and Communicating Information	5.90	1.63	-0.25	-0.01
4.1 Writing and Reporting	4.86	1.66	0.26	0.05
4.2 Applying Expertise and Technology	4.66	1.76	0.51	0.27
4.3 Analysing	4.55	1.86	0.40	0.05
5.1 Learning and Researching	4.43	1.76	0.51	0.29
5.2 Creating and Innovating	5.10	1.66	0.22	-0.10
5.3 Formulating Strategies and Concepts	4.83	1.74	-0.15	-0.37
6.1 Planning and Organising	4.20	1.77	0.14	-0.55
6.2 Delivering Results and Meeting Customer Expectations	3.93	1.66	0.36	-0.22
6.3 Following Instructions and Procedures	4.23	1.84	0.34	-0.47
7.1 Adapting and Responding to Change	5.87	1.53	0.14	-0.44
7.2 Coping with Pressures and Setbacks	6.12	2.00	-0.08	-0.21
8.1 Achieving Personal Work Goals and Objectives	4.93	2.07	0.12	-0.63
8.2 Entrepreneurial and Commercial Thinking	5.63	1.69	-0.03	-0.69

In order to visually portray and inspect the UCF mean scores according to the competency framework, a scale was created that coincides with the four *different levels of importance for the job performance*. Mean scores in the range 0 – 2.5 coincided with *Baseline Importance*; mean scores in the range 2.6 – 5.0 coincided with *Moderate Importance*; mean scores in the range 5.1 – 7.5 coincided with *High Importance*; and mean scores in the range 7.6 – 10 coincided with *Extreme Importance* (as indicated in Table 38).

Table 38. ***Numeric ranges of different levels of importance of competencies***

Importance Level	Baseline	Moderate	High	Extreme
Quartiled ranges per level of importance	0 – 2.5	2.6 – 5.0	5.1 – 7.5	7.6 – 10

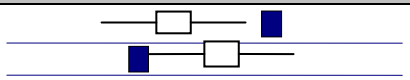
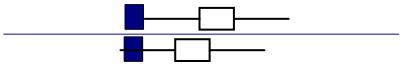
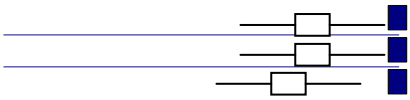
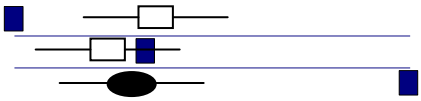
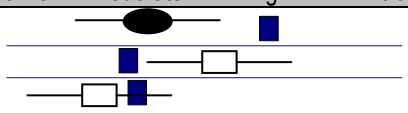
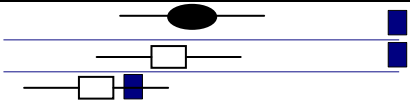
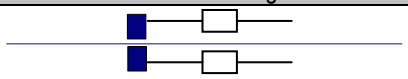
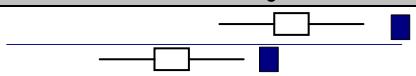
When the mean UCF competency scores (indicated in Table 37 above) were superimposed onto the hypothesised competency framework using the above scale and the variance indicated by box whiskers, the data revealed strong face validity[38]. As is indicated in Table 39 and in terms of the requirements of

[38] According to Anastasi and Urbina (1997) face validity refers not to what the test actually measures (content validity), but what it appears to measure. Face validity pertains to whether the test "looks valid" to examinees who take it, and to practitioners using the data or reports. It fundamentally concerns rapport and public relations and in itself is a desirable feature of tests. Face validity should, however, never be regarded as a substitute for objectively determined validity – as is done in this study – and it should not be assumed that improving the face validity of a test will improve its objective validity.

the position (as articulated in the competency framework), the *differences* between the performers and the *direction* of the differences (higher or lower; positive or negative) confirmed the competency model. The mean competency scores where high-performing advisors scored markedly *higher* than low performers placed them closer to the job analysis level of importance for that particular competency. On the other hand, with the competencies where the high-performing advisors scored markedly *lower* than low performers, the scores of high-performing advisors put them closer the job analysis level of importance for that particular competency.

Table 39. ***UCF mean scores and job analysis competency model – exceptions***

	Job analysis level of importance ratings per competency
	Validation study results mean scores
	Competencies on which mean scores differed markedly from the competency model

1. Leading and Deciding		
Importance Level		Baseline / Moderate / High / Extreme
Quartiles as per sample mean scores on respective competencies		0 – 2.5 / 2.6 – 5.0 / 5.1 – 7.5 / 7.6 – 10
1.1	Deciding and Initiating Action	
1.2	Leading and Supervising	
2. Supporting and Co-operating		
Importance Level		Baseline / Moderate / High / Extreme
2.1	Working with People	
2.2	Adhering to Principles and Values	
3. Interacting and Presenting		
Importance Level		Baseline / Moderate / High / Extreme
3.1	Relating and Networking	
3.2	Persuading and Influencing	
3.3	Presenting and Communicating Information	
4. Analysing and Interpreting		
Importance Level		Baseline / Moderate / High / Extreme
4.1	Writing and Reporting	
4.2	Applying Expertise and Technology	
4.3	Analysing (Ability load in PJM)	
5. Creating and Conceptualising		
Importance Level		Baseline / Moderate / High / Extreme
5.1	Learning and Researching (Ability load in PJM)	
5.2	Creating and Innovating	
5.3	Formulating Strategies and Concepts	
6. Organising and Executing		
Importance Level		Baseline / Moderate / High / Extreme
6.1	Planning and Organising (Ability load in PJM)	
6.2	Delivering Results and Meeting Customer Expectations	
6.3	Following Instructions and Procedures	
7. Adapting and Coping		
Importance Level		Baseline / Moderate / High / Extreme
7.1	Adapting and Responding to Change	
7.2	Coping with Pressures and Setbacks	
8. Enterprising and Performing		
Importance Level		Baseline / Moderate / High / Extreme
8.1	Achieving Personal Work Goals and Objectives	
8.2	Entrepreneurial and Commercial Thinking	

4.3.5 The effect of the ability score's loading on the job match output

It seems that the current sample's mean scores on the different competencies give a fair representation of the proposed competency model derived from the job analysis. The abovementioned competencies also received the respective high and low importance ratings on the job analysis, as well as other competencies where no correlations were found. Despite this strong face validity there were, however, exceptions on three competencies where the mean scores for high-performing advisors were markedly lower than the suggested point of importance in the competency model. These three competencies were the following (as are indicated in Table 37) above:

1. Analysing;
2. Learning and Researching;
3. Planning and Organising.

These exceptions could be explained by investigating the effect that ability has on the performance of advisors. It seems that when the effects of personality *and* ability are combined and reflected in a Person Job Match (PJM) report, the candidate's ability scores load on the above competencies (causing the scores in the PJM to up or down). The above use of a Person Job Match report automatically integrates the candidate's ability scores obtained on the VC1.1 into the goodness-of-fit score reflected on the job match report. It is, however, worthwhile to first report on ability results separately, before reporting on the combined effect. The combined effect of the ability assessment's results onto the competency framework is a proprietary feature of the product supplier.

4.4 ABILITY AND ADVISOR SUCCESS

The Pearson correlation between ability and success was statistically ($p = .00$) and practically significant ($r = .34$, medium effect size, approaching large ES which is indicated when $r \geq .0.37$). A mean score of 36.96 was obtained on the VC1.1 (as is indicated in Table 40) with a standard deviation of 9.88. Using an appropriate norm group[39] the mean score translated to a sten score of 5.35. High-performing advisors (6.20) scored two sten scores higher than low-performing advisors (4.20). These mean VC1.1 scores could be considered as parameters when using this model for recruitment purposes. It could be operationalised by doing the VC1.1 assessment first and regarding the mean VC1.1 score for the whole

[39] The particulars of the norm used showed comparable characteristics to the sample researched: GROUP: The group consisted of 364 applicants for junior management positions at a large South African assurance company. AGE: The ages of the group range from 20 to 54, with a mean age of 31.70 (SD = 6.54). GENDER: The group consisted of 173 (47.53%) male and 191 (52.47%) female candidates. ETHNIC COMPOSITION: The ethnic composition of the applicants in this study included 119 (32.69%) Africans, 23 (6.32%) Asians, 86 (23.63%) Coloureds and 136 (37.36%) Whites. LANGUAGE: The language of the applicants included English (N = 191, 52.47%), Afrikaans (N = 56, 15.38%), and African languages (N = 117, 32.14%). EDUCATION: The educational qualifications of the applicants ranged from Grade 10 to a post-graduate degree. PLACE OF TESTING: Testing was conducted mainly in Johannesburg and Cape Town. DATE OF TESTING: Testing took place during 2001 and 2002.

sample (5.34) as a guide. Depending on the score, the candidate could then progress to participate in the personality assessment.

Table 40. ***Descriptive statistics: VC1.1 critical reasoning questionnaire (N = 185)***

Ability	Mean	Min	Max	SD
VC1.1	36.96	9.88	56	9.88

Comparing high and low performers with d-statistics, as summarised in Table 41, indicated that the difference between the high-performing advisors and low performers was practically significant (d = 1.02). The high-performing advisors scored higher (mean = 41.51) on the critical reasoning assessment than low-performing advisors (mean = 30.84)

Table 41. ***Differences between top (Q1) and bottom (Q4) performers on ability***

	Top-performing advisors (n=45)					Bottom-performing advisors (n=45)			
	Mean	Min	Max	SD	d-stat	Mean	Min	Max	SD
VC1.1	41.51	23	55	7.38	1.02	30.84	11	55	10.43
VC1.1 sten	6.20	3	9	1.39	1.08	4.20	1	9	1.96

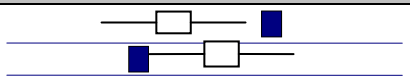
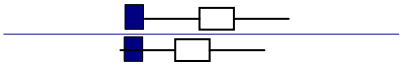
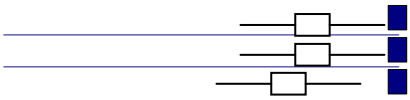
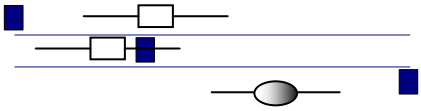
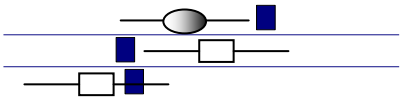
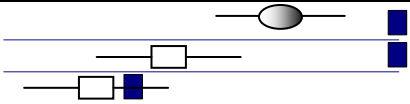
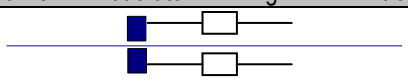
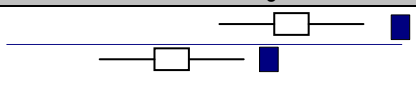
If ability then is a statistically significant differentiator between high-performing and low-performing advisors, what will the effect be on the competency-based Person Job Match report when ability *and* personality are combined?

4.5 PERSONALITY AND ABILITY COMBINED IN ADVISOR SUCCESS

As indicated above, the mean scores of three competencies were *markedly further* (lower) from the job analysis point of importance. These UCF competencies – *Analysing, Learning and Researching*, and *Planning and Organising* – are affected by ability (VC1.1) measures when generating the SHL Person Job Match report for the candidate. This combined effect of ability on personality is a unique feature of the OPQ32i Person Job Match report and the mathematical details of the loadings are not available. However, a higher score on the VC1.1 assessment will load positively onto these competencies, hence moving them closer to, or further away (with low scores) from the point proposed on the competency framework. If high-performing advisors do in fact score higher on the ability measure, then the job match reports for high-performing advisors will indicate higher scores on these three competencies, bringing their scores closer to the job analysis point of importance. On face validity it thus seems that the proposed competency framework, as derived from the job analysis process, is a fair representation of the competencies required of successful advisors. This *adjusted competency* model that takes into account the loadings of the ability scores onto these competencies, is indicated in Table 42.

Table 42. ***Competency model corrected with ability-affected competencies***

	Job analysis level of importance ratings per competency
	Validation study results mean scores
	Competencies that are affected by ability scores on a Person Job Match Report

1. Leading and Deciding		
Importance Level		Baseline / Moderate / High / Extreme
Quartiles as per sample mean scores on respective competencies		0 – 2.5 / 2.6 – 5.0 / 5.1 – 7.5 / 7.6 – 10
1.1	Deciding and Initiating Action	
1.2	Leading and Supervising	
2. Supporting and Co-operating		
Importance Level		Baseline / Moderate / High / Extreme
2.1	Working with People	
2.2	Adhering to Principles and Values	
3. Interacting and Presenting		
Importance Level		Baseline / Moderate / High / Extreme
3.1	Relating and Networking	
3.2	Persuading and Influencing	
3.3	Presenting and Communicating Information	
4. Analysing and Interpreting		
Importance Level		Baseline / Moderate / High / Extreme
4.1	Writing and Reporting	
4.2	Applying Expertise and Technology	
4.3	Analysing (Ability load in PJM)	
5. Creating and Conceptualising		
Importance Level		Baseline / Moderate / High / Extreme
5.1	*Learning and Researching (Ability load in PJM)*	
5.2	Creating and Innovating	
5.3	Formulating Strategies and Concepts	
6. Organising and Executing		
Importance Level		Baseline / Moderate / High / Extreme
6.1	*Planning and Organising (Ability load in PJM)*	
6.2	Delivering Results and Meeting Customer Expectations	
6.3	Following Instructions and Procedures	
7. Adapting and Coping		
Importance Level		Baseline / Moderate / High / Extreme
7.1	Adapting and Responding to Change	
7.2	Coping with Pressures and Setbacks	
8. Enterprising and Performing		
Importance Level		Baseline / Moderate / High / Extreme
8.1	Achieving Personal Work Goals and Objectives	
8.2	Entrepreneurial and Commercial Thinking	

4.6 COMPETENCIES IN A PERSON JOB MATCH REPORT

When determining the degree of fit to the job, the UCF competency framework uses competencies that are of *high (desirable) and extremely high (essential) importance for the job*, as is indicated from the extract of such a job match report in Table 43. In this sample the candidate was a moderate match with the requirements of the job – hence the score of 54.

Table 43. ***Example: UCF Person Job Match Report, extract from summary report***

indicating only essential and desirable competencies

Competency Potential Match Score

The Overall Competency Potential Match Score is a weighted score based on the criticality of the competencies assessed and the person's scores on competency potential measures derived from the personality questionnaire (and ability tests, if available).

•	**From the assessment results, this candidate has a reasonable match to the job profile.**
54	**The Individual Person-Job-Match Ranking Score enables decision makers to compare different candidates to one another, provided that the job profile and the completed assessments remain identical.**

Guide to Overall Match Interpretation

Match	Interpretation Guide
√√	**Extremely Strong Match**
√	**Strong Match**
•	**Moderate Match**
X	**Weak Match: Some Limitations**
XX	**Extremely Weak Match: Many Limitations**

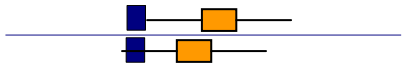
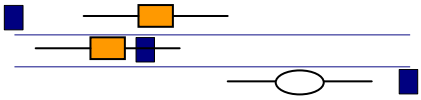
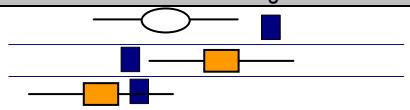
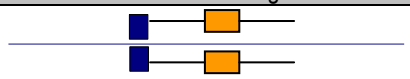
However, from the data analysis it is also clear that some of the competencies which are of *moderate* importance to the job are *significant differentiators between high and low performers*, and need to be reflected in the job match report as well.

These competencies are the following (with their corresponding numbers according to the competency model as indicated in Table 44):

- Working with People (high performers lower than low performers);
- Adhering to Principles and Values (high performers lower than low performers);
- Writing and Reporting (high performers lower than low performers);
- Formulating Strategies and Concepts (high performers lower than lower performers);
- Adapting and Responding to Change (high performers lower than low performers).

Table 44. ***Differences between performers on moderately important competencies***

	**Job analysis level of importance ratings per competency**
	**Mean scores on *moderately* and *baseline* important competencies ***
	**Competencies that are effected by ability scores on a Person Job Match report**

2. Supporting and Co-operating					
Importance Level		Baseline	Moderate	High	Extreme
2.1	**Working with People (high performers lower than low performers)***				
2.2	**Adhering to Principles and Values (high performers lower)***				
4. Analysing and Interpreting					
Importance Level		Baseline	Moderate	High	Extreme
4.1	**Writing and Reporting (high performers lower)***				
4.2	Applying Expertise and Technology				
4.3	*Analysing (Ability load in PJM)* (high performers lower)				
5. Creating and Conceptualising					
Importance Level		Baseline	Moderate	High	Extreme
5.1	*Learning and Researching (Ability load in PJM)*				
5.2	Creating and Innovating				
5.3	**Formulating Strategies and Concepts (high performers lower)***				
7. Adapting and Coping					
Importance Level		Baseline	Moderate	High	Extreme
7.1	**Adapting and Responding to Change (high performers lower)***				
7.2	Coping with Pressures and Setbacks				

A Person Job Match matrix using the UCF framework expresses the candidate's competency potential in a matrix, with the candidate's competency potential indicated on the vertical axis and job importance on the horizontal axis. As illustrated in Table 45, this results in multiple categories.

Table 45. ***Categories of competence as per the Person Job Match matrix***

Areas of Strength: Competencies listed under this heading were rated as Essential or Desirable for the job, and the person has Good or Excellent potential. These should be recognised, held onto and nurtured**.**

Areas for Development: These are competencies which have been rated as Essential or Desirable for the job, and the person has only Moderate potential in these areas. The lacking competencies may need to be addressed in order to maximise effectiveness**.**

Areas of Concern: These are competencies which have been rated as Essential or Desirable for the job, yet the person has Poor or Marginal potential in these areas. They will need to be addressed in order to maximise effectiveness**.**

Unused Potential: These are areas of competency where the person has Good or Excellent potential, but these areas are Less Relevant or Not Relevant for this particular job. These may be areas of strength in other jobs, or may indicate potential for promotion.

Undeveloped Areas: These are Less Relevant or Not Relevant areas of job competencies, where the person has Poor, Marginal or Moderate potential. They may be areas that might need to be developed at some stage in the future in order to prepare this person for a different position or for promotion**.**

When the multiple categories are expressed in a grid, taking into account the relative job importance of the competencies and the potential of the candidate, it can be presented like the example provided in Table 46. Of particular interest is the definition of *undeveloped areas* in the PJM report: "These are less relevant or not relevant areas of job competencies where the person has poor, marginal or moderate potential. They may be the areas that might need to be developed at some stage in the future in order to prepare this person for a different position or for a promotion." This definition isolates these competencies because they were of moderate or lesser importance for this job, and proposes that they could be developed for future career possibilities.

Table 46. *Person Job Match matrix*

		Job Importance	
		Lower Job Importance	**Higher Job Importance**
Competency Potential	**Excellent or Good Potential**	**Unused Potential**	**Areas of Strength**
		6.3 Following Instructions and Procedures 5.2 Creating and Innovating 4.2 Applying Expertise and Technology 1.2 Leading and Supervising 7.2 Coping with Pressure and Setbacks	1.1 Deciding and Initiating Action (high performers higher) 3.2 Persuading and Influencing 3.3 Presenting and Communicating Information 8.1 Achieving Personal Work Goals (high performers higher 8.2 Entrepreneurial and commercial Thinking (high performers higher)
	Moderate Potential	**Undeveloped Areas**	**Areas for Development**
	Moderate competencies where applicants must score low since these competencies are clear discriminators for success for high performers	2.1 Working with People (high performers lower) 2.2 Adhering to Principles and Values (high performers lower) 5.3 Formulating Strategies and Concepts (high performers lower) 7.1 Adapting and Responding to Change (high performers lower)	4.3 Analysing (high performers lower) 3.1 Relating and Networking (high performers lower) 5.1 Learning and Researching 6.1 Planning and Organising 6.2 Delivering Results and Meeting Customer Expectations
	Marginal or Poor Potential	**Undeveloped Areas**	**Areas of Concern**
	Baseline competencies where applicants must score low since these competencies are clear discriminators for success for high performers	4.1 Writing and Reporting (high performers lower)	

This matrix provides utility to implement the model. It provides the recruiter with direction as to how the dispersion of the competencies should be presented in a job match report that reflects the requirements of the job, and it differentiates between the different levels of importance of the various competencies.

4.7 BIOGRAPHICAL AND SOCIOGRAPHICAL PREDICTORS

Up to this point the analysis was mainly concerned with measurement data (OPQ32i, VC1.1), where each observation represents a score along some continuum, for example a score on a competency dimension or on the VC1.1 critical reasoning assessment. The most commonly used statistics are the mean and the standard deviation. On the other hand, when analysing biographical and sociographical data, it involves analysing categorical data which consist of the frequencies of observations that fall into each of two or more categories. Of particular interest is the difference between high and low performers on these variables. Chi-square *(χ^2)* statistics and two tailed *t*-tests were calculated.[40] Significance levels on all the predictors were reported and informed the subsequent interpretation of the results. The significance level for the biographical and sociographical variables was set at .10 (p = .10), and not the conventional .05 used elsewhere in the study (i.e. ability and personality) for the following reasons: Firstly, the study is descriptive and explorative in design and the results are used to give an indication of which variables could be investigated further in other studies before predictive models are built. Secondly, the weighting in terms of the selection process that is given to biographical and sociographical factors is usually much lower than those given to personality and ability, and is determined by business decisions (i.e. the market does the specific distribution channel operate).Thirdly, the volume of advisors selected per annum and the selection ratios are of such an extent that an error of 1 in 10 is acceptable.

4.7.1 Gender

The results indicate that the majority of advisors in this study are male (85%). Females comprise 15% (Table 46). In comparing high-performing advisors to low-performing advisors it seems that gender is a statistically significant differentiator: It is approaching the .05 level of significance, χ^2 (1,n = 90) = 3.55, p = .1. – at .10 level of significance[41] (α = .10) the critical value[42] is 2.71, *and* at .05 level of significance the critical value is 3.84.

Amongst the high-performing advisors 89% are male and 11% are female. Amongst the low performers 73% are male and 27% are female. Table 47 summarises the results. It seems that the advisor

[40] For Chi-square statistics (χ^2) the critical values at the intercepts of different levels of significance (α or p-level) and for different degrees of freedom (df) were obtained from Howell (1999). In reporting on Chi-squares (χ^2) the degree of freedom and sample size are given in brackets, followed by the obtained Chi-square value and the significance level: χ^2 (1, n = 90) = 3.55, p <.05. (APA, 2001).

[41] According to the Statistica electronic manual a p-level of .05 (i.e.1/20) indicates that there is a 5% probability that the relation between the variables found in our sample is a "fluke". In other words, assuming that in the population there was no relation between those variables whatsoever, and we were repeating experiments like ours one after another, we could expect that approximately in every 20 replications of the experiment there would be one in which the relation between the variables in question would be equal or stronger than in ours. In many areas of research, the p-level of .05 is customarily treated as a "border-line acceptable" error level.

[42] The decision to reject or fail to reject a null hypothesis is based on computing a test statistic. The sampling distribution is divided into two parts – a rejection region and a non rejection region. The rejection region usually falls in the tails of the distribution of the test statistic. Lower-tail critical values are negative; upper-tail values are positive (Evans & Olson, 2000).The rejection region is defined by a *critical value* of the test statistic.

profession in this distribution channel is still very much a male-dominated career. Comparative results with other distributors are not available therefore it is impossible to ascertain if this trend is generalisable.

Table 47. ***Frequency table: Gender***

Gender	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Male	158	158	85.41	85.41	85.41	85.41
Female	27	185	14.59	100.00	14.59	100.00

4.7.2 Age

The average age of financial advisors in this study is close to 40 years, with a standard deviation of approximately ten years. This confirms our experience that this distribution channel attracts chronologically mature advisors compared to other distribution channels within the South African financial services environment in (Table 48). When comparing *low-performing* advisors' ages (mean = 37.6) with *high-performing* advisors' ages (mean = 41.09) the average ages differ by a few years. Age is a statistically significant discriminator for success at the .1 level of significance. (p = .1; t = -1.67).

The aging of assurance distribution forces corresponds with international trends and is seen as a concern that should be addressed. The current regulatory changes in South Africa could be regarded as a barrier to entry for new entrants (upfront commission replaced by as-and-when commission), which in turn contributes to the aging of the existing population of advisors. However, as seen below (where the qualifications of advisors are scrutinised) it seems clear that an increasing number of graduates are entering the market and that the professionalising of the industry will probably see younger and more qualified advisors choosing this career.

Table 48. ***Descriptive statistics: Age***

	Valid N	Mean	Minimum	Maximum	SD
Age	178	39.81	23	69	9.57

4.7.3 Work experience before advisor career inception

The majority of advisors' experience is in first-party selling (36.76%), either as assurance agents or advisors, and secondly in the banking environment (17.30%) (Table 49). If the *years* of work experience before joining the company is scrutinised it is clear that the low-performing advisors (mean = 13.68 years) and high-performing advisors (mean = 14.31 years) do not differ statistically significantly – they differ at .60 level of significance (p = .57; t = -0.57). However, should high and low performers be compared *qualitatively* in terms of the *kind* of experience, 31% of *high-performing advisors* indicated that they have banking experience, and another 31% indicated that they either worked as agents or advisors. *Low-performing advisors* indicated that they have experience as agents or advisors (42%) and 22.22% listed

other experience. It is evident that *banking* experience is the main contributor to differentiate high-performing advisors from low performers. The statistical significance of this contributor could be investigated.

Table 49. ***Frequency table: What kind of experience before starting***

Type of experience	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Agent or Advisor	68	68	36.76	36.76	36.76	36.76
Independent Broker	16	84	8.65	45.41	8.65	45.41
Banking	32	116	17.30	62.70	17.30	62.70
Other	26	142	14.05	76.76	14.05	76.76
Assurance (non sales)	13	155	7.03	83.78	7.03	83.78
Broker Advisor	17	172	9.19	92.97	9.19	92.97
Own Business	8	180	4.32	97.30	4.32	97.30
Teaching	4	184	2.16	99.46	2.16	99.46
Error	1	185	0.54	100.00	0.54	100.00

Dickie and Trailer (2005) have been tracking the experience curves of salespeople across industries for many years. In their 2005 study they make the following observations: Companies distinguish between candidates with general sales experience and those with industry-related experience (as indicated in Figure 12). Also, that some industries are less reliant on industry-specific experience when recruiting new sales staff than others. The importance of *both* industry experience and general sales experience for advisors seems to confirm the international trend – high-performing advisors seem to be distinguished from low-performing advisors as having banking experience preceding their career as advisor.

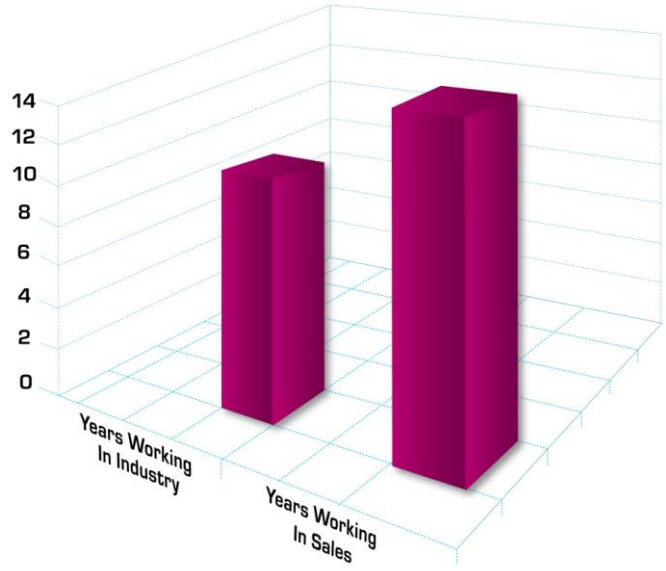


Figure 11. International 2005 average industry and sales experience of sales forces

4.7.4 Number of jobs held before the advisor career inception

Closely related to the kind of job experience and the number of years, experience (discussed above) is the number of jobs participants held before becoming financial advisors. For the majority of advisors (70.27%) this is their first, second or third job, and for about 20% it is their first job (as summarised in Table 50).

Table 50. ***Frequency table: Number of jobs held before joining the company***

Number of jobs	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
1	36	36	19.57	19.57	19.46	19.46
2	47	83	25.54	45.11	25.41	44.86
3	47	130	25.54	70.65	25.41	70.27
4	20	150	10.87	81.52	10.81	81.08
5	17	167	9.24	90.76	9.19	90.27
6	17	184	9.24	100.00	9.19	99.46
Missing	1	185	0.54	19.57	0.54	100.00

There is not much difference (p = .95; t = -0.06) between the number of jobs held by high-performing advisors (mean = 2.82; SD = 1.61) and low-performing advisors (mean = 2.80, SD = 1.66) before joining the company.

4.7.5 Ethnicity

Of the total sample the majority of advisors are Whites (62%), and Blacks (24%) make up the second largest group, and Coloureds and Indians the remainder (14%), as is indicated in Table 51. When the high-performing advisors, consisting of 37 white and eight black advisors, are compared with low-performing advisors (30 white, 15 black) it seems that high-performing advisors are also mainly white. Ethnicity as a category is a statistically significant discriminator between high-performing and low-performing advisors: χ^2 (1, n = 90) = 22.05, p = .005.

Table 51. ***Frequency table: Ethnicity***

Ethnicity	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
African/Black	45	45	24.32	24.32	24.32	24.32
Coloured	5	50	2.70	27.03	2.70	27.03
Indian	20	70	10.81	37.84	10.81	37.84
White	115	185	62.16	100.00	62.16	100.00

The assurance industry in South Africa is currently in a state of flux, with a rising black middle class entering the banking fraternity. Due to the changes in the demographics of the South African market, it is possible that more blacks are choosing advisor careers as well. A suggestion could be to extend this study across all the major banks to determine the profile of successful advisors as this may contribute to the transformation effort in South Africa.

4.7.6 Language

Almost 55% of respondents indicated English as their first language (54.59), and almost 40% Afrikaans (38.92) (as indicated in Table 42). An interesting anomaly is observed between language and ethnicity. According to the ethnicity distribution summarised above, 45 respondents indicated that they are black, but in the language summary in Table 52 only 12 respondents indicated a black language as their home language. This could point to the emerging trend to Blacks opting to use English as home language.

Table 52. ***Frequency table: Language***

Language	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
English	101	101	54.59	54.59	24.32	54.59
Afrikaans	72	173	38.92	93.51	2.70	93.51
North Sotho	7	180	3.78	97.30	10.81	97.30
Tsonga	1	181	0.54	97.84	62.16	97.84
Tswana	4	185	2.16	100.00	0.00	100.00

4.7.7 Education level at inception of advisor career

As indicated in Table 53, about 40% of advisors enter this industry with only a Matric qualification. However, a growing group of graduates and post-graduates (44%) are choosing this sector as a career, and the effects of the professionalising of the industry are evident in the growing number of graduates entering the profession. The assurance industry in South Africa is currently undergoing significant change due to regulatory changes aimed not only at protecting the consumer, but also professionalising financial advisory services and the associated careers. By 2010 all financial advisors will need to have obtained an industry qualification equivalent to NQF level 5 (graduate level).

Table 53. ***Frequency table: Qualifications when entering the career***

Qualification	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Grade 10 or below	5	5	2.70	2.70	2.70	2.70
Grade 12	74	79	40.00	42.70	40.00	42.70
Post Matric certificate	25	104	13.51	56.22	13.51	56.22
Degree	51	155	27.57	83.78	27.57	83.78
Post graduate	30	185	16.22	100.00	16.22	100.00

When high-performing and low-performing advisors are compared in terms of education, 22.2% of the high performers have post-graduate qualifications, compared to 7% of low performers (as indicated in Table 54). This could further confirm the growing trend for advisors to move towards Certified Financial Planner (CFP) status, which involves obtaining a post-graduate diploma in financial planning.

Table 54. ***Contingency table: Education***

Education	Grade11	Grade12	Certificate	Degree	Post Graduate	Total
High	1	19	7	8	10	45
Bottom	1	17	10	14	3	45
Total	2	36	17	22	13	90

Education as a category is not a statistically significant discriminator between high and low-performing advisors, χ^2 (4, n = 90) = 6.05, p = .25, but it is however, approaching the .1 level of significance (At the .25 level of significance the critical value is 5.39 and[43] at the .1 level of significance the critical value is 7.78.) In recruiting financial advisors a trade-off always exists between the technical knowledge of the advisor (i.e. education) and the ability to sell. A current emerging trend is to recruit graduates, who studied financial planning and management, but not all these applicants have the ability or motivation to sell nor do they all have industry experience. This presents the recruiting manager with a challenge as to who to recruit as advisors. This emphasises the need to use a validated personality framework to distinguish between candidates in terms of those personality constructs that predict sales success, and to provide an internship program.

4.7.8 Number of assurance contracts held at inception of advisor career

The assumption is that if a person intends making financial advice their career of choice, then there should be a basic belief in assurance products. If there is a belief in the products, then the potential advisor should have at least purchased assurance products themselves before becoming an advisor. Table 55 summarises the research results.

Table 55. ***Frequency table: Number of assurance contracts held at career inception***

Number of contracts	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
5	14	14	7.65	7.65	7.57	7.57
1	60	74	32.79	40.44	32.43	40.00
6 or more	28	102	15.30	55.74	15.14	55.14
3	28	130	15.30	71.04	15.14	70.27
4	24	154	13.11	84.15	12.97	83.24
2	29	183	15.85	100.00	15.68	98.92
Missing	2	185	1.09		1.08	100.00

If high-performing advisors (mean = 3.50; SD = 1.82) are compared to low-performing advisors (mean = 2.36; SD = 1.73), the number of assurance contracts held at the time of becoming an advisor is a statistically significant discriminator between performers (p = 0.008; t = -3.03).

[43] When a Chi-square value falls between two levels of confidence/significance, and is markedly toward the upper or higher level of confidence/significance, then the critical value of the upper level is also noted.

4.7.9 Relatives in assurance at inception of advisor career

It seems that having a relative in the assurance industry at the time of becoming an advisor is not a statistically significant driver for success (Table 56). Low-performing advisors (no relative = 76%; yes = 26%), and high-performing advisors (no relative = 71%, yes = 29%) do not differ statistically significantly on this variable, χ^2 (1, n = 90) = 0.23, p = .75. (At the .75 level of significance the critical value is .010 and at the .50 level of significance the critical value is 0.45.) Having a relative in the industry at the time of becoming an advisor does not statistically significantly determine success:

Table 56. ***Frequency table: Relatives in assurance at advisor's career inception***

Relatives in assurance	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
No	135	135	72.97	72.97	72.97	72.97
Yes	50	185	27.03	100.00	27.03	100.00

4.7.10 Fit within the family

Closely related to the abovementioned (relatives in the industry) is the financial advisor's fit into the family he or she grew up in. It is based on the assumption that the career risk propensity of different siblings in the family differs – with the youngest generally having a higher career appetite for risk than the eldest in the family. Experience in the distribution environment seems to indicate that the youngest siblings – higher career risk appetite – prefer first party sales (i.e. an agent) whereas the eldest are more inclined to third-party sales (i.e. a broker consultant). The Bancassurance model under investigation is in terms of risk, a hybrid of a first- and third-party distribution system. It involves first party sales, but from an office in the bank and utilising the security of the bank's brand, infrastructure and client database. The trend in terms of sibling preference would give an indication of the perceived risk associated with the career of an advisor in the Bancassurance environment. As indicated in Table 57, almost 49% of participants indicated that they are either the eldest and second eldest, and almost 29% indicated that they are the youngest or second youngest in the family. Just over 10% indicated that they are the middle child and about 4% the only child. It seems that with regards to career risk propensity the Bancassurance advisor is more risk averse than the traditional perception of direct sales advisors.

Table 57. ***Frequency table: Fit within the family***

Fit in the family	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Middle child (3/5)	19	19	10.27	10.27	10.27	10.27
Eldest child	72	91	38.92	49.19	38.92	49.19
Other	16	107	8.65	57.84	8.65	57.84
Youngest child	40	147	21.62	79.46	21.62	79.46
Second oldest (4/5)	18	165	9.73	89.19	9.73	89.19
Second youngest (4/5)	13	178	7.03	96.22	7.03	96.22
Only child	7	185	3.78	100.00	3.78	100.00

When high-performing advisors were compared to low-performing advisors on this variable, the ratios between eldest and youngest are slightly different. About 44% of high-performing advisors indicated that they are the eldest and 20% are the youngest. Amongst low-performing advisors 39% indicated that are the eldest and 24% that they are the youngest. Despite these visible differences, high and low performers do not differ statistically significantly with regards to their position in the family, χ^2 (6, *n*= 90) = 5.51, *p* = .5.

4.7.11 Number of children in family

When low-performing advisors (mean = 4.18; SD = 1.48) are compared to high-performing advisors (mean = 3.38; SD = 1.54) in terms of family size they differ statistically significantly (*p* = .01; *t* = *2.51*). High-performing advisors' families are smaller (i.e. the family in which they grew up). High-performing advisors come from families of between two and five children, and low-performing advisors come from families of between three and six children (Table 58).

Table 58. ***Frequency table: Number of children in the family of origin***

Number of children	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
3	45	45	24.32	24.32	24.32	24.32
6 or more	37	82	20.00	44.32	20.00	44.32
2	33	115	17.84	62.16	17.84	62.16
5	21	136	11.35	73.51	11.35	73.51
4	39	175	21.08	94.59	21.08	94.59
1	10	185	5.41	100.00	5.41	100.00

4.7.12 Parents' type of occupation

Experience in the *third-party* distribution environment indicate that most advisors come from middle- class families (i.e. teaching, trade, and government). This informed the choices available to advisors on the biographical sheet. As indicated in Table 59, the largest group of participants (34.24%) indicated *other* as their parents' occupation. Almost equal proportions of the high-performing advisors (40%) and low performers (38%) indicated *other* as parental occupation. It seems that the scales for this item were inadequate to conclusively make any inference of what type of parental occupation is the most common.

However, 22% of the low-performing advisors indicated *government* as parental occupation, and with none of their parents having their *own business*, or being from a *professional* background. Amongst the high-performing advisors only 9% indicated *government* as the parental occupation, and 11% indicated that their parents had their *own business*, and approximately 18% indicated that their parents had a *professional* background. Although not exclusively so, it seems that high-performing advisors come from more entrepreneurial and professionally inclined backgrounds.

Table 59. ***Frequency table: Parents' occupation at time of becoming an advisor***

Parents' occupation	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Government	32	32	17.39	17.39	17.30	17.30
Other	63	95	34.24	51.63	34.05	51.35
Own business	23	118	12.50	64.13	12.43	63.78
Professional	17	135	9.24	73.37	9.19	72.97
Trade	15	150	8.15	81.52	8.11	81.08
Teacher	15	165	8.15	89.67	8.11	89.19
Financial services	19	184	10.33	100.00	10.27	99.46
Missing	1	185	0.54		0.54	100.00

4.7.13 Marital status at inception of advisor career

The majority of advisors were married with dependents at the time of entering the industry (54%), with the other categories being almost equally represented (Table 60).

Table 60. ***Frequency table: Marital status at inception of advisor career***

Marital status	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Married + dependants	99	99	53.80	53.80	53.51	53.51
Single/Divorced + dep.	27	126	14.67	68.48	14.59	68.11
Married & no dependants	26	152	14.13	82.61	14.05	82.16
Single/Divorced & no dep.	32	184	17.39	100.00	17.30	99.46
Missing	1	185	0.54		0.54	100.00

The biographical heuristic that single and/or divorced individuals are more successful advisors – due to the supposedly higher drive for success – does not seem to be relevant here. Rather the opposite seems to be true. 80% of high-performing advisors indicated that they were married with dependents at time of entry, compared to the 58% of low-performing advisors. In the low performing group, 42% indicated that they were single or divorced at the time of entry, compared to only 20% in the high-performing group. Marital status is not a statistically significant differentiator between performers, χ^2 (3, n = 90) = 5.65, p = .25. The significance level is however approaching the .1 level of significance. (At the .25 level of significance the critical value is 4.11, and at the.1 significance level the critical value is 6.25.)

4.7.14 Property status at inception of advisor career

Starting a career as a financial advisor requires a substantial commitment of start-up capital to sustain the advisor when beginning a business. Should the person already be able to service a bond it is an indication of a certain lifestyle and asset strength. The assumption is, thus, that advisors should enter the industry when at least already paying of a mortgage, and preferably having proven that some financial capacity has been built up with a bond substantially (50% or more) paid off already. The research results summarised in Table 61 indicate that at inception of their careers, 36% of the advisors did have a bond, 15% had already paid off half of the bond amount, and almost 50% did not have a bond when they entered the industry.

Table 61. ***Frequency table: Property status at time of becoming an advisor***

Property status	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
No bond	88	88	48.35	48.35	47.57	47.57
Had bond, 50% or less	29	117	15.93	64.29	15.68	63.24
Yes did have a bond	65	182	35.71	100.00	35.14	98.38
Missing	3	185	1.65		1.62	100.00

Almost 46% of high-performing advisors indicated that they *did not have* a bond at entry, compared to 60% of low-performing advisors. More high-performing advisors had paid of more than half of their bond at career inception than low-performing advisors (19% vs. 13%), and 36% of high-performing advisors indicated that they did have a bond compared to 27% of low-performing advisors. Property status at career inception does not seem to be a statistically significant discriminator between high- and low-performing advisors, χ^2 (2, n = 90) = 1.89, p = .5. (At the .50 level of significance the critical value is 1.39 and at the .25 level of significance the critical value is 2.77.)

4.7.15 Asset status at inception of advisor career

Closely related to property status at the time of becoming an advisor is the asset status of the advisor. A general rule of thumb is that the higher the income to net asset ratio is at the time of becoming an advisor, the better the chances are of survival. As reflected in Table 62 almost, 50% of advisors indicated that their income *was equal or more than six times* their net assets at the time they started as advisors. Almost 30% indicated that their income was *less than three times* their net assets. High-performing advisors seem to be more affluent than their low-performing counterparts, when becoming advisors. Almost 60% of high-performing advisors indicated that their income/asset ratio was above 6, compared to 37% of low-performing advisors. Only 22% of high-performing advisors indicated that their income/asset ratio was below 3 at the time of becoming advisors, compared to 43% of low-performing advisors. These differences were, however, not statistically significant.

Table 62. ***Frequency table: Income to net assets at career inception***

Asset status	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Income = 6 x net assets	92	92	49.73	49.73	49.73	49.73
Income = 4 x net assets	23	115	12.43	62.16	12.43	62.16
Income = 5x net assets	17	132	9.19	71.35	9.19	71.35
Income = less 3 x n/assets	53	185	28.65	100.00	28.65	100.00

4.7.16 Market segment at inception of advisor career

As indicated in Table 63 almost 50% of advisors indicated that when they first started as advisors they were operating within the Upper Affinity market segment (market segments as defined by the Bank) and

almost 23% in the Lower Affinity market. 27% of advisors were spread across the other upper market segments.

Table 63. ***Frequency table: Market segment at career inception***

Market segment	Count	Cumulative Count	Percent of Valid	Cumulative % of Valid	% of all Cases	Cumulative % of All
Elite	5	143	2.70	73.37	2.70	77.30
Priority	15	138	8.11	64.13	8.11	74.59
SME	33	33	17.84	17.39	17.84	17.84
Upper Affinity	90	123	48.65	51.63	48.65	66.49
Lower Affinity	42	185	22.70	81.52	22.70	100.00

When compared it seems that high-performing advisors started their careers in the upper to high end of the consumer market. It is fair to say that clients in the upper markets usually have higher levels of disposable income, are more inclined to use assurance products, and also pay higher premiums on average. Almost 50% of the high performers indicated that they were operating in the Upper Affinity market compared to 33% of low-performing advisors. Only 6% of high performers started their careers in the Lower Affinity market, compared to 48% of low-performing advisors. Almost 37% of high-performing advisors were operating above the Upper Affinity segment at inception of their careers (37% in the SME, Priority and Elite markets), compared to 13% of low performers functioning in this market.

It seems that high-performing advisors differ statistically significantly from low-performing advisors in terms of the market segment they were exposed to or positioned themselves in, at the inception of their careers. It also seems that most high performers start their careers in the middle to upper markets while low performers mainly start off in the middle to lower markets. The difference is statistically significant, χ^2 (4, n = 90) = 26.59, p = .005. This difference should, however, be read in conjunction with the next variable that deals with mobility within the segments post recruitment. The propensity for an advisor to be comfortable in environments of affluence could be a mediating factor on this variable and should be investigated further.

4.7.17 Mobility within market segments since inception of advisor career

Is the success of an advisor a "stroke of luck" determined by the market segment they happen to open up or find themselves in at the inception of their careers, or is there an element of mobility as well that determines success (i.e. working themselves up into the affluent ends of the markets in terms of the clients they see)? The variable of mobility within market segments, measures the extent to which the advisor moved up the affluence ladder, as reflected by the type of client he or she saw as their careers progressed.

As indicated in Table 64, high-performing advisors are more upwardly mobile than low-performing advisors. More than 31% of high-performing advisors indicated that they have moved upward in the market segments since the inception of their careers, compared to 7% of low-performing advisors. Amongst the high performers, 62% indicated that they are still in they same segment where they started their careers, compared to 89% of the low performers.

High-performing advisors differ statistically significantly from low-performing advisors in that they are more upwardly mobile in terms of the clients they see, χ^2 (2, n = 90) = 10.23, p =.01. The question, however, is how to measure this mobility at recruitment stage. A possibility could be to determine with further research what percentage of variability in performance is explained by this variable, and if significant, to develop measures to assess it.

Table 64. ***Frequency table: Mobility within segments post inception***

Low-performing advisors						
	Count	**Cumulative Count**	**Percent of Valid**	**Cumul. % of Valid**	**% of all Cases**	**Cumulative % of All**
c - No	40	40	90.91	90.91	88.89	88.89
a - Yes, up	3	43	6.82	97.73	6.67	95.56
b - Yes, down	1	44	2.27	100.00	2.22	97.78
Missing	1	45	2.27		2.22	100.00
High-performing advisors						
	Count	**Cumulative Count**	**Percent of Valid**	**Cumul. % of Valid**	**% of all Cases**	**Cumulative % of All**
c - No	28	28	62.22	62.22	62.22	62.22
a - Yes, up	14	42	31.11	93.33	31.11	93.33
b - Yes, down	3	45	6.67	100.00	6.67	100.00

4.8 CHAPTER SUMMARY

In terms of the holistic framework for psychological research, as highlighted in Figure 13, Chapter 4 reported on the data analyses and did preliminary and incremental interpretation of predictors. Certain inferences could be made in terms of the research aims, and critical appraisals were given of the person job match technology and behavioural anchored rating scales. Firstly, the chapter reported on the reliability of predictor and criterion variables. Secondly, it reported on the personality and ability profiles of successful advisors in terms of the job analysis profile, and by comparing high and low performers. Then the combined effect of personality and ability was scrutinised. This was followed by a report on the biographical and sociographical variables, after which differences between high and low performers were noted.

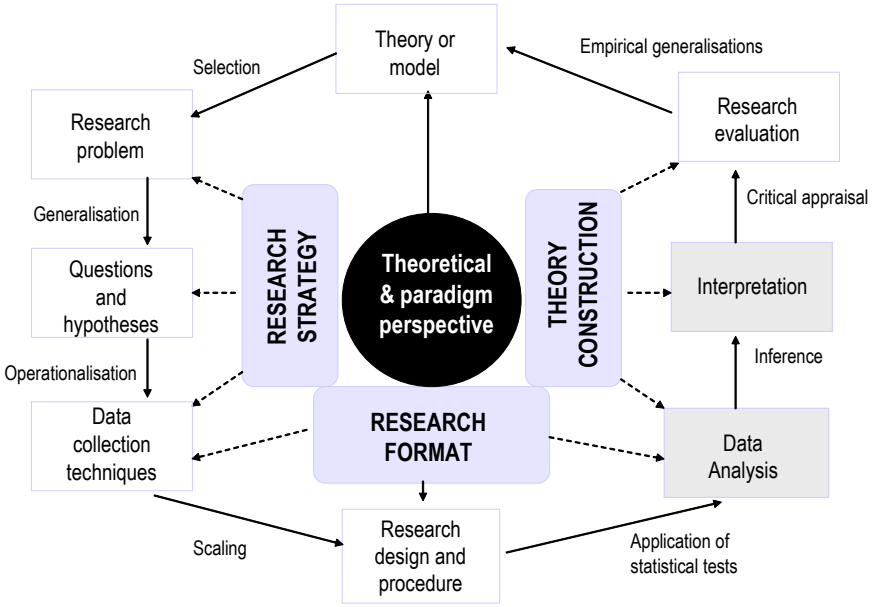


Figure 12. Holistic framework for psychological research: Critical evaluation

In terms of the holistic framework for psychological research, Chapter 5 deals with the remaining two steps in the research process. It proceeds to interpret the results *as a whole*, drawing conclusions from the data in an integrative manner. Chapter 5 provides a critical appraisal of the research, discusses the limitations of the study, provides empirical generalisations, and concludes by reflecting on the theoretical framework harnessed in the study.

Chapter 5: Results, limitations and conclusions

According to the circle of praxis in Figure 14, Chapters 1 to 4 dealt with *Experience* and *Analysis*. Chapter 5 deals with *Reflection and Planning*, which is an effort to understand *more broadly and deeply* the analysed experience in the light of prevailing theory and practice – a critical appraisal of both the data scrutinised as well as the research process harnessed. Since the purpose of the circle is action or implementation – indicated by the final step in the circle – the fourth critical moment in the circle is planning. This chapter addresses the practical utility of the study and reflects on the research process.

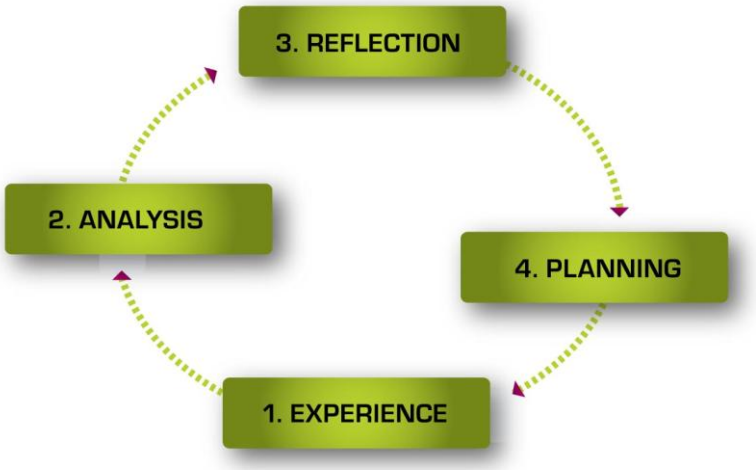


Figure 13. Hermeneutical circle: Reflection and planning

The research question comprised the following elements and the conclusions are addressed in this order:

- What is the *competency profile* of a successful financial advisor in the Bancassurance environment?
- What is the *ability profile* of a successful financial advisor in the Bancassurance environment?
- What is the *biographical and sociographical profile* of a successful financial advisor in the Bancassurance environment?

5.1 COMPETENCY PROFILE OF A SUCCESSFUL FINANCIAL ADVISOR

A job analysis process attempts to accurately describe the work outputs or job requirements of a position. Matching the applicant at recruitment stage to the job requirements would logically predict work performance. This study hypothesised such a model. A concurrent validation study was conducted to determine the personality, ability, and sociographical and biographical factors associated with successful advisors. The personality and ability factors that distinguished high-performing advisors from low-performing advisors confirmed the hypothesised competency model to a large extent.

5.1.1 Statistically significant differences between performers

The value of the d-statistic in this research was to accentuate correlations revealed between personality and performance and, ability and performance. It confirmed inferential indicators of success (correlations), but more so provided a descriptive indicator that differences *between* performers existed. This prompted the conducting of nonparametric statistics. Cohen (1988) compares effect size in terms of the *d* values and correlation values (*r*) and provides ranges for *r* that coincide with the respective *d* values – small effect size (0.5 > d < 0.2; .243 > r > .1; .059 > r^2 > .010), medium effect size (0.8 > d > 0.5; .371 > r < .243; .138 > r^2 < .059) – Medium effect size is conceived as being one large enough to be visible to the naked eye. Large effect size (d ≥ 0.8; r < .371; r^2 < .138) means that the two variables are so separate as to make almost half (47.7%) of their areas not overlapped in terms of measures of non-overlap. With this in mind, for small effect the size *r* values should be above .1. Comparing these ranges with the r values indicated in Table 65, it is clear that the competencies where *r* values were below the .1 threshold were those competencies where differences occurred *between* high performers and low performers. The corresponding t-values indicated on which of these competencies the differences were statistically significant. As indicated in Table 65, differences on the following competencies and ability were statistically significant at the 95% level of confidence or higher ($p \leq .05$):

- Deciding and Initiating Action; Adhering to Principles and Values;
- Adapting and Responding to Change; Coping with Pressure and Setbacks;
- Achieving Personal Work Goals and Objectives; Entrepreneurial and Commercial Thinking;
- Critical Reasoning (VC1.1).

Advisors differed on the following competency at the .05 and .1 levels of significance (.05 < p ≤ .1):

- Working with People; Relating and Networking; Analysing; Adhering to Principles and Values

Table 65. ***Statistically significant differences on competencies and ability***

Competency and Ability	Job	*d*	ES	*t*	*p*	*r*
Deciding and Initiating Action	High	0.55	Medium	-3.74	.00	.130
Working with People	Moderate	-0.35	Small	1.57	.12	.109
Adhering to Principles and Values*	Moderate	0.52	Medium	2.71	.01	-.119
Relating and Networking	Extreme	-0.32	Small	1.52	.13	-.074
Writing and Reporting	Baseline	-0.48	Small	1.92	.06	-.201
Analysing	Extreme	-0.31	Small	1.70	.09	-.131
Learning and Researching	High	-0.22	Small	1.20	.23	-.094
Formulating Strategies and Concepts	Moderate	-0.31	Small	1.44	.14	-.045
Adapting and Responding to Change	Moderate	-0.43	Small	2.06	.04	-.075
Coping with Pressure and Setbacks	Moderate	-0.20	Small	2.25	.03	-.003
Achieving Personal Work Goals & Objectives	Extreme	-0.34	Small	-3.38	.00	.130
Entrepreneurial & Commercial Thinking	High	0.62	Medium	-3.91	.00	.164
Critical Reasoning (VC1.1)	Extreme	1.02	Large		.00	.460

When the competency mean scores were populated onto the competency model it became clear that the competency model was an accurate estimate of what the requirements of the job should be and how advisors should match this model.

5.1.2 High performers compared with hypothesised competency model

In order to plot the mean scores of high-performing advisors on the competency grid, the different importance levels of competencies were divided into equal quartiles and the ranges indicated. When the mean UCF competency scores were superimposed onto the competency framework derived from the job analysis, and the variance was indicated by box whiskers, it seemed to have strong face validity (see Table 66). It seems that the current sample's mean scores on the different competencies give a fair representation of the proposed competency model derived from the job analysis. The competencies with positive Pearson correlations also received the respective *high importance* ratings and the negative correlations the respective low *importance* ratings on the job analysis. The mean scores on competencies, where no statistically significant correlations or meaningful differences were found, also confirmed the *competency model*.

Competencies that are ***essential*** (extremely important) for job performance according to the *competency framework* are: *Relating and Networking*; *Persuading and Influencing*; *Presenting and Communicating Information; Analysing; Planning and Organising; Delivering Results and Meeting Customer Expectations* and *Achieving Personal Work Goals and Objectives.* With the exception of the two essential competencies affected by critical reasoning ability (*Analysing; Planning and Organising)* (discussed below), only *Delivering Results and Meeting Customer Expectations* was not confirmed either by the mean scores of high-performing advisors or when contrasted with low performers.

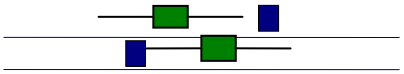
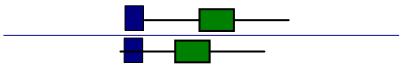
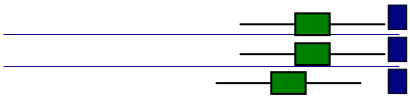
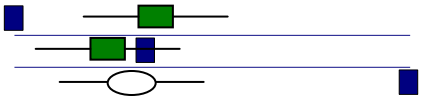
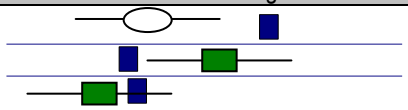
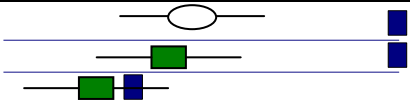
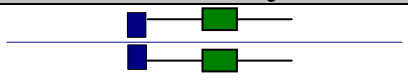
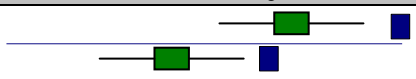
As indicated in Table 65 above, high-performing advisors and low performers differed statistically and significantly on the competencies of *Achieving Personal Work Goals and Objectives* with (high performers scored higher) and *Relating and Networking* (high performers scored lower) and *Analysing* (high performers scored lower).The fact that *Planning and Organising*; and *Delivering Results and Meeting Customer Expectations* are both *essential* for success in the position, raises the question why high and low performers do not differ statistically significantly on these competencies, and why they do not reveal statistically significant correlations with success. If the loading from the ability scores onto the competency of *Planning and Organising* is accepted (discussed below) then the question is why the competency of *Delivering Results and Meeting Customer Expectations* does not reveal significant differences as well. This competency is part of the organisation's strategic competency set and is clearly articulated in its value set. It may have adverse implications for the value proposition of the organisation,

should this competency not be related to advisor success – discriminating between performers – in the new economy that is driven by consumerism.

Competencies that are ***important****,* with high relevance for job performance, are *Deciding and Initiating Action* and *Learning and Researching*, and *Entrepreneurial and Commercial Thinking.* If the loading onto *Learning and Researching* by the critical reasoning score is accepted (discussed below), then all three competencies confirm the hypothesised competency model. As indicated in Table 66, the high-performing and low-performing advisors differed statistically and significantly on *Deciding and Initiating Action* and *Entrepreneurial and Commercial Thinking*, with high-performing advisors scoring higher.

Table 66. ***Summary UCF mean scores compared to job analysis***

	Job analysis level of importance ratings per competency
	Validation study results mean scores
	Competencies that are effected by ability scores on a Person Job Match report

1. Leading and Deciding		
Importance Level		Baseline 0 – 2.5 / Moderate 2.6 – 5.0 / High 5.1 – 7.5 / Extreme 7.6 – 10
1.1	Deciding and Initiating Action	
1.2	Leading and Supervising	
2. Supporting and Co-operating		
Importance Level		Baseline / Moderate / High / Extreme
2.1	Working with People	
2.2	Adhering to Principles and Values	
3. Interacting and Presenting		
Importance Level		Baseline / Moderate / High / Extreme
3.1	Relating and Networking	
3.2	Persuading and Influencing	
3.3	Presenting and Communicating Information	
4. Analysing and Interpreting		
Importance Level		Baseline / Moderate / High / Extreme
4.1	Writing and Reporting	
4.2	Applying Expertise and Technology	
4.3	*Analysing (Ability load in PJM)*	
5. Creating and Conceptualising		
Importance Level		Baseline / Moderate / High / Extreme
5.1	*Learning and Researching (Ability load in PJM)*	
5.2	Creating and Innovating	
5.3	Formulating Strategies and Concepts	
6. Organising and Executing		
Importance Level		Baseline / Moderate / High / Extreme
6.1	*Planning and Organising (Ability load in PJM)*	
6.2	Delivering Results and Meeting Customer Expectations	
6.3	Following Instructions and Procedures	
7. Adapting and Coping		
Importance Level		Baseline / Moderate / High / Extreme
7.1	Adapting and Responding to Change	
7.2	Coping with Pressures and Setbacks	
8. Enterprising and Performing		
Importance Level		Baseline / Moderate / High / Extreme
8.1	Achieving Personal Work Goals and Objectives	
8.2	Entrepreneurial and Commercial Thinking	

Competencies that are of ***moderate*** importance to job performance are: *Leading and Supervising; Working with People; Adhering to Principles and Values; Applying Expertise and Technology; Creating and Innovating, Formulating Strategies and Concepts; Following Instructions and Procedures; Adapting and Responding to Change; Coping with Pressure and Setbacks.* As indicated in Table 66 (above), high and low performers differed significantly (visibly) on the competencies of *Working with People*; *Adhering to Principles and Values*; *Adapting and Responding to Change*; *Adhering to Principles and Values,* and *Formulating Strategies and Concepts* all of which were lower for high performers.

The competency of *Writing and Reporting* is of ***baseline*** importance for the job, according to the job analysis. As indicated in Table 66 high-performing advisors differed significantly (visibly) from low performers on this competency in that high-performing advisors scored lower than low performers, hence bringing them closer (lower) to the desired point on the competency grid.

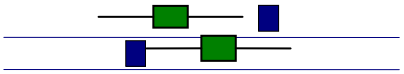
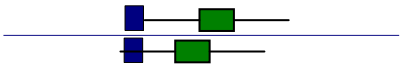
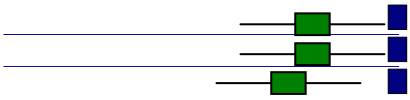
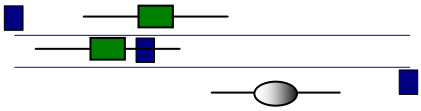
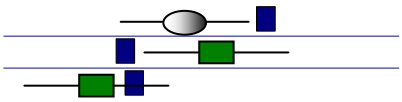
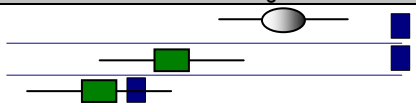
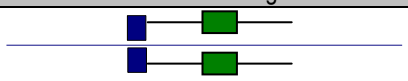
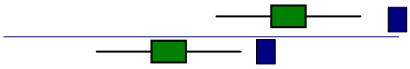
From this discussion two issues affect the face validity of the match between high and low performers and the competency grid. Firstly, is the *combined effect* of ability *and* personality on the Person Job Match report – the competency grid; and secondly the significant (visible) differences between high and low performers on competencies that are *moderately* important.

5.1.3 Combined effect of personality and ability on person job match

As indicated in Table 67, the competencies where the mean scores for high-performing advisors were *markedly* lower than the job analysis point of importance were the following: *Analysing, Learning and Researching* and *Planning and Organising.* These competencies are affected by loadings from the ability measurement when generating the Person Job Match report for the candidate. The combined effect of ability on personality is a unique feature of the OPQ32i Person Job Match Report. A higher score on the VC1.1 assessment will load positively onto these competencies, hence moving them closer to, or further away (with low scores) from the point proposed on the competency framework. The results of the VC 1.1 assessment seem to confirm this. The high-performing advisors scored higher (mean = 41.51) on the critical reasoning assessment than low-performing advisors (mean = 30.84) and the difference between the high-performing advisors and low performers was statistically and practically significant (d = 1.02). High-performing advisors' job match reports on these competencies will thus most likely be closer to the job analysis point of importance. This further confirms the hypothesised competency model and the results obtained in the research. Future research could investigate the relationship between the VC 1.1 and the competency profile in order to verify these loadings onto the competency profile.

Table 67. ***The competency model confirmed by the study, combined with ability***

	Job analysis level of importance ratings per competency
	Validation study results mean scores close to that proposed in job analysis
	Competencies that are effected by ability scores on a Person Job Match Report

1. Leading and Deciding		
Importance Level		Baseline / Moderate / High / Extreme
Quartiles as per sample mean scores on respective competencies		0 – 2.5 / 2.6 – 5.0 / 5.1 – 7.5 / 7.6 – 10
1.1	Deciding and Initiating Action	
1.2	Leading and Supervising	
2. Supporting and Co-operating		
Importance Level		Baseline / Moderate / High / Extreme
2.1	Working with People	
2.2	Adhering to Principles and Values	
3. Interacting and Presenting		
Importance Level		Baseline / Moderate / High / Extreme
3.1	Relating and Networking	
3.2	Persuading and Influencing	
3.3	Presenting and Communicating Information	
4. Analysing and Interpreting		
Importance Level		Baseline / Moderate / High / Extreme
4.1	Writing and Reporting	
4.2	Applying Expertise and Technology	
4.3	Analysing (Ability load in PJM)	
5. Creating and Conceptualising		
Importance Level		Baseline / Moderate / High / Extreme
5.1	*Learning and Researching (Ability load in PJM)*	
5.2	Creating and Innovating	
5.3	Formulating Strategies and Concepts	
6. Organising and Executing		
Importance Level		Baseline / Moderate / High / Extreme
6.1	*Planning and Organising (Ability load in PJM)*	
6.2	Delivering Results and Meeting Customer Expectations	
6.3	Following Instructions and Procedures	
7. Adapting and Coping		
Importance Level		Baseline / Moderate / High / Extreme
7.1	Adapting and Responding to Change	
7.2	Coping with Pressures and Setbacks	
8. Enterprising and Performing		
Importance Level		Baseline / Moderate / High / Extreme
8.1	Achieving Personal Work Goals and Objectives	
8.2	Entrepreneurial and Commercial Thinking	

5.1.4 Differences on moderately important competencies

From the data analysis it was clear that some of the competencies which are of *moderate* importance to the job are *practical differentiators between high and low performers* and need to be reflected in the job match report as well. These competencies are the following indicated in Table 68:

- Working with People (high performers lower than low performers);
- Adhering to Principles and Values (high performers lower than low performers);
- Writing and Reporting (high performers lower than low performers);
- Formulating Strategies and Concepts (high performers lower than lower performers);
- Adapting and Responding to Change (high performers lower than low performers).

Table 68. ***Differences between performers on moderately important competencies***

	**Job analysis level of importance ratings per competency**
	*** Mean scores on moderately important competencies**
	**Competencies that are effected by ability scores on a Person Job Match Report**

2. Supporting and Co-operating					
Importance Level		Baseline	Moderate	High	Extreme
2.1	*** Working with People (high performers lower than low performers)**				
2.2	*** Adhering to Principles and Values (high performers lower)**				

4. Analysing and Interpreting					
Importance Level		Baseline	Moderate	High	Extreme
4.1	*** Writing and Reporting (high performers lower)**				
4.2	Applying Expertise and Technology				
4.3	*Analysing (Ability load in PJM)* (high performers lower)				

5. Creating and Conceptualising					
Importance Level		Baseline	Moderate	High	Extreme
5.1	*Learning and Researching (Ability load in PJM)*				
5.2	Creating and Innovating				
5.3	*** Formulating Strategies and Concepts (high performers lower)**				

7. Adapting and Coping					
Importance Level		Baseline	Moderate	High	Extreme
7.1	***Adapting and Responding to Change (high performers lower)**				
7.2	Coping with Pressures and Setbacks				

When determining the degree of fit to the job, the UCF competency framework uses competencies that are of high (desirable) and extremely high (essential) importance for the job, and of lower (moderate) and baseline importance. A Person Job Match matrix, using the UCF framework expresses, the candidate's competency potential on the vertical axis of a matrix and job importance on the horizontal axis. When multiple categories are expressed, taking into account the relative job importance of the competencies and the potential of the candidate, it resembles the example provided in Table 69. Of particular interest is the definition of undeveloped areas: "These are less relevant or not relevant areas of job competencies

where the person has poor, marginal or moderate potential. They may be the areas that might need to be developed at some stage in the future in order to prepare this person for a different position or for a promotion." (SHL, 2005). This definition isolates these competencies because they were of moderate or lesser importance for this job, and suggests that they could be developed for future career possibilities. The candidate is not penalised if he/she scores low on these competencies because they are of moderate importance to job success.

The results of this study, however, indicate that it is preferable that successful candidates *must indeed score lower on these competencies*. That means that scoring low on these competencies may technically indicate undeveloped areas (when applying for other positions), but for this position scoring low on these competencies provides a clear differentiator for potential success and is desirable. When interpreting candidates' person job match reports it is suggested that special note taken of these "undeveloped areas" when discriminating *between* candidates towards the later stages of recruitment.

Table 69. ***PJM matrix: Predictive and moderately important competencies***

		Job Importance	
Competency Potential		**Lower Job Importance**	**Higher Job Importance**
	Excellent or Good Potential	**Unused Potential**	**Areas of Strength**
		These are areas of competency where the person has Good or Excellent potential but these areas are Less Relevant or Not Relevant for this particular job. These may be areas of strength in other jobs or indicate potential for promotion.	Competencies listed under this heading were rated as Essential or Desirable for the job, and the person has Good or Excellent potential. These persons should be recognised, held onto and nurtured.
	Moderate Potential	**Undeveloped Areas**	**Areas for Development**
	Moderate competencies where applicants MUST score low since these competencies are clear discriminators for success for high performers 	2.1 Working with People (high performers lower) 2.2 Adhering to Principles and Values (high performers lower) 5.3 Formulating Strategies and Concepts (high performers lower) 7.1 Adapting and Responding to Change (high performers lower)	These are competencies which have been rated as Essential or Desirable for the job, and the person has only Moderate potential in these areas. The areas may need to be addressed in order to maximise effectiveness.
	Marginal or Poor Potential	**Undeveloped Areas**	**Areas of Concern**
	Baseline competencies where applicants MUST score low since these competencies are clear discriminators for success for high performers 	4.1 Writing and Reporting (high performers lower)	These are competencies which have been rated as Essential or Desirable for the job, yet the person has Poor or Marginal potential in these areas. The areas will need to be addressed in order to maximise effectiveness.

A concern needs to be raised *not* that these competencies are of moderate importance to meeting the job requirements – the above argument has indicated how it could be integrated into a selection process. The concern is more about low performers scoring higher than high performers on the following competencies:

- Working with People (high performers lower than low performers);
- Adhering to Principles and Values (high performers lower than low performers);
- Writing and Reporting (high performers lower than low performers);
- Formulating Strategies and Concepts (high performers lower than lower performers);
- Adapting and Responding to Change (high performers lower than low performers).

On closer scrutiny these competencies could be regarded – without discarding the others – as an umbrella composite, which is essential to survive the consumer economy and the imminent professionalised advisor environment. Should the lower mean scores of high performers be plotted on the hypothesised competency model, the mean scores would consistently be higher than the level required by the model. This means that when high performers score lower on these competencies it brings them *closer to the required importance* level on the model. This could partly explain why high performers are flourishing in the current changing environment, and inversely why low performers are not.

5.2 ABILITY PROFILE

The study revealed conclusively that both the constructs of *Analysing* and *Critical Reasoning* were statistically significant in discriminating between performers.

5.2.1 Ability as a practical and significant predictor

The high-performing advisors scored higher (mean = 41.51) on the critical reasoning assessment than low-performing advisors (mean = 30.84) and the difference between the high-performing advisors and low performers was statistically and practically significant (d = 1.02). Using an appropriate norm group the mean score translated to a sten score of 5.35. High-performing advisors (6.20) scored 2 sten scores higher than low-performing advisors (4.20).

5.2.2 Implications for selection strategies

The ability questionnaire mean of low-performing advisors (mean = 30.84) and that high-performing advisors (mean = 41.51) could be considered as cut-off parameters when using this model for recruitment purposes. Experience in the use of the VC1.1 in other distribution channel selection models has indicated the usefulness and utility of having both a low and high cut-off score (range) when using ability assessments. Depending on the norm used, it effectively would imply that the *low cut-off sten* score could be 5.35, which would not exclude the "above average low performers" The *upper cut-off sten score* could be 6.20, thereby not excluding the "below-average top performers". This sten range would

provide good selection utility and can be refined by further experimental study. The norm used in this research to generate sten scores distinguished very well between high and low performers (d = 1.08).

This study investigated what the success predictors are for financial advisors, but it did not venture into building regression equations – the best-fitting straight line for estimating the criterion (i.e. production of an advisor) from a test (i.e. personality or other variables), as is done with predictive validity studies. (Gregory, 2000). However, since the study will be used in service of recruitment decision making it is worthwhile to elaborate on decision theory and its relation to validity studies. This is also important since it has the potential use of ability (VC1.1) cut-off scores mentioned above, the weightings used in the competency-based person job match, and the differences on biographical and sociographical variables. Gregory (2000) provides a helpful two-by-two matrix illustrating the possible outcomes when a selection test is used to predict performance on a criterion (Figure 15). According to this matrix, when using cut-off scores, the sample is divided into those candidates "predicted-to-succeed" versus those "predicted-to-fail" on the criterion (i.e. production figures). The subsequent outcome on the criterion variable could then also be split into two categories, namely, "did succeed" and "did fail". But since no selection test is a perfect predictor, two other types of outcomes are also possible. Some persons predicted to succeed, will in fact, fail – called false positives. Inversely, some persons predicted to fail would, given the chance, succeed – called false negatives.

		Performance on criterion measure	
		Did Succeed	**Did Fail**
Prediction of selection test	**Will Succeed**	**Correct Prediction (hit)**	**False Positive (miss) – Type I error**
	Will Fail	**False Negative (miss) – Type II error**	**False Positive (hit)**

Figure 14. Decision theory and predicting performance

The study revealed that a competency profile with the respective weightings (levels of importance) is an accurate portrayal of the requirements of the job, and that it in fact discriminates between performers. It is, however, imperative when implementing to take cognizance of the possibility of Type I and Type II errors, as translated into decision theory when setting parameters for selection The ability differences – as with the differences on personality and biographical and sociographical factors – could be verified through predictive validity research and by scrutinising the cut-off scores for the probability of Type I and Type II errors.

5.2.3 Measuring ability and analytical constructs in advisors

According to the *Corporate Leadership Council* (CLC, 2004b) measuring *analytical ability* in advisors is difficult. What is meant by *analytical ability* is, however, not clear. An individual could be interpreted as having an *analytical personality,* as *numerical* ability, or as an ability which is indicated by *critical reasoning.* This ambiguity when measuring the analytic ability of advisors was confirmed by this study, however some clear indicators were found to investigate further.

This study reported on ability both on a *critical reasoning level* (with the VC1.1 assessment) as well as a personality construct – the *Analysing* competency. The Universal Competency Framework (UCF) defines the *Analysing* competency as being able to analyse data of a verbal and numerical nature and other sources of information; breaking information down into components; probing for further information; generating workable solutions to problems. In this study Pearson correlations conducted on the total sample the correlations for Analysing was not statistically significant (p = 0.78; r= -.1306). However, when high and low performers were compared, Analysing was a statistically significant differentiator at the 91% confidence level between high and low performers, with high performers *scoring lower*. (t = 1.70, p = 0.09, d= - 0.31). However, when reporting on *ability* scores (critical reasoning) the opposite was true in this study. As indicated above, critical reasoning was a statistical significant predictor for success for the total sample, and when comparing high and low performers: High performers scored statistically significantly higher than low performers.

As regards to the competency of *Learning and Researching*, the d-statistic revealed a difference at small effect size (-0.22). Learning and Researching (UCF) is described as being able to learn new tasks quickly; remembering information; and gathering data for effective decision-making, and could be related to the analytical ability and the learning potential of an individual. In reporting on validation results the validity of selection assessments is frequently mentioned in conjunction with predictions on the individual's trainability as covariant success predictors (Schmidt & Hunter, 1998).

It thus seems that *analytical ability* could be a composite construct that could be measured at multiple levels and *learning ability* could well be included in this construct. Future research could probe the relationship between ability, analysing, critical reasoning and learning potential.

5.3 BIOGRAPHICAL AND SOCIOGRAPHICAL PROFILE

A total of 17 biographical and sociographical variables were investigated. Table 70 summarises these variables in terms of the differences between high and low performers and the different levels of significance. Statistically significant differences ($p \leq .1$) were found on the variables of:

- Gender;
- Age;
- Ethnicity;
- Number of personal assurance contracts held at career inception;
- Number of children in the family;
- Market segment at inception of career;
- Mobility with segments post-appointment.

Table 70. ***Differences on biographical and sociographical variables***

Differing at different levels of significance
Gender (*p* = .10)
Age (*p* ≤.10)
Experience – What kind of experience and how long (non-significant)
Number of jobs held before joining the advisor industry (non-significant)
Ethnicity (*p* = .005)
Language (non-significant)
Education (*p* = .25)
Number of assurance contracts at inception of advisor career (*p* ≤.01)
Relatives in assurance at time of becoming an advisor (*p* = .75)
Fit in the family (*p* = .50)
Number of children in family (*p* ≤ .01)
Parents' type of occupation (non-significant)
Marital status at time of becoming an advisor (*p* = .50)
Property status at time of becoming an advisor (*p* = .50)
Asset status at time of becoming an advisor (non-significant)
Market segment at the inception of advisor career (*p* = .005)
Mobility within market segments (*p* = .005)

5.3.1 Significant differences between high and low performers

The results indicated that the 17 biographical and sociographical factors assessed could be categorised into three bands according to the confidence levels with which they discriminate between high-performing and low-performing advisors: Six factors discriminated between high-performing and low-performing advisors at the 99% confidence level ($p \leq .01$). Six factors were discriminators between the 99% and 25% confidence levels ($p \leq .1$). Lastly, five factors were non-significant discriminators between high-performing and low-performing advisors.

Statistically significant differences ($p \leq .01$) between high and low performers were found on the following:

- *Ethnicity*. This could be a factor of the current demographics of the financial services sector, where the upcoming black middle class is only entering the market now, and the propensity for blacks considering the career of advisor is still in the development stage.
- *Number of assurance contracts at inception of advisor career*. It seems that a clear marker for the potential success of an individual is the extent to which he or she purchased assurance-

related products prior to joining the industry. This is analogically similar to the often-stated marker for aeroplane pilots, who built and played with miniature aeroplanes before eventually becoming pilots.

- *Number of children in family.* Successful advisors come from smaller families.
- *Mobility within market segments.* Successful advisors have the ability to move up the affluence ladder as their careers progress. This could be a function of their knowledge levels becoming better and their efficacy increasing, hence they have higher competence levels to deal with the more complex financial problems associated with affluent customers.
- *Market segment at the inception of advisor career.* Following on the above marker, successful advisors seem to start their careers in the upper middle income group. This could be a function of their knowledge and propriety, but also of the particular branch they were recruited into.

Statistically significant differences between the 25% and 75% levels of confidence ($.25 \leq p \leq .75$) were found on the following variables:

- Gender;
- Age;
- Education;
- Property status at time of becoming an advisor;
- Fit in the family;
- Marital status at time of becoming an advisor.
- Relatives in assurance at time of becoming an advisor

5.3.2 Non-significant differences between high and low performers

Non-significant differences between high and low performers were found on the following variables:

- Parents' type of occupation;
- Number of jobs held before joining the advisor industry;
- Language;
- Asset status at time of becoming an advisor;
- Experience – What kind of experience and how long.

5.4 LIMITATIONS OF THE STUDY

The study presented three limitations. Firstly, the effect of preselection; secondly, the restriction of range in scores obtained by applicants and; thirdly, the lack of performance- and recruitment-related criterion variables.

5.4.1 Preselection evident in predictor measures

Cascio (1998) defines preselection in terms of managerial selection as follows:

> … preselection poses problems with severe restriction of range. That is, the full range of abilities frequently is not represented since by the time the applicants are considered for managerial, they have already been highly screened, and therefore, comprise a rather homogenous group. (p. 223).

Concurrent validation studies, by definition, assess people who are already in a position. These participants have been recruited and selected with certain criteria in mind and by whatever methods existing in the organisation at the time. Hence the range of such group in both predictor (test scores) and criterion measures, according to Anastasi and Urbina (1988), will be curtailed at the lower end of the distribution. The effect of such preselection will therefore be to lower the validity coefficient. The effects of preselection were evident in the study in the limited number of competencies that revealed practically significant Pearson correlations – hence the decision to use Chi-squares and t-tests to distinguish between high- and low-performing advisors. Despite these range restrictions the results of the study confirmed the competency model derived from the job analysis, and it is foreseen that in the subsequent use of the instruments for selection, the validity coefficients may be somewhat higher.

5.4.2 Restriction of range evident in criterion measures

Managerial ratings on consultant performance were positively biased and reflected a severe restriction of range. This was detrimental to the usefulness of the ratings. This positive bias and restriction of range was disproportionate to the ranges found on the other measures, which led to the conclusion that competency-based criterion scales had not been fully used. Despite the intensive one-on-one rater training of managers on the rating procedures, high levels of restriction of range still occurred. This also raises a question as to the feasibility of behaviourally anchored rating scales.

With regards to rater training, Cascio (1998) suggests leveraging from a workshop training methodology (all managers involved in rating) to complement the prevailing administrator training methodology – the assumption being that participation will enhance validity of ratings. The administrator methodology usually informs participants (one manager at a time, in the case of this study) of the rating scales and the rating procedure, leniency, central tendency, halo and reliability effects, without necessarily allowing group discussion (participation) of these effects on the assessment at hand. Cascio (id.) suggests a group training workshop unfolding along six steps in order to enhance the quality of ratings; these are illustrated in Table 71.

Table 71. ***Improve quality of ratings on behaviourally anchored rating scales***

1. Participants are told that they will evaluate their team of advisors on 20 competencies
2. They are given the rating scales and instructed to read them as the trainer reads the dimension definitions and scale anchors out aloud.
3. The trainer then discusses ratee behaviours that illustrate different performance levels for each scale. The goal is to create a common performance theory (frame of reference) among raters such that they will agree on the appropriate dimension and effectiveness level for different behaviours.
4. Participants are shown a videotape of a practice vignette and are asked to evaluate the advisor using the scales provided.
5. Ratings are then written on a whiteboard and discussed by the group of participants. The trainer seeks to identify which behaviours participants used to decide on their assigned ratings, and to clarify any discrepancies among the ratings.
6. The trainer provides feedback to participants, explaining why the rate should receive a certain rating (target score) on a given dimension (competency).

The restriction of range in the manager ratings could also be due to the *intrinsic limitations* of behaviourally anchored rating scales (BARS). Bernardin and Beatty (1984) in Cascio (1998) summarises the enormous amount of research done on the effects of BARS, and conclude that there is little empirical evidence to support the superiority of BARS over other performance appraisal systems. The known effects of BARS are summarised in Table 72.

Table 72. ***Known effects of Behaviourally Anchored Rating Scales (BARS)***

Participation
Participation does seem to enhance the validity of ratings, but no more so for BARS than for simple graphic rating scales.
Leniency, central tendency, halo, reliability
BARS is not superior to other methods (reliabilities across dimensions in published studies range from about .52 to .76).
External validity
Moderate (R^2s of .21 to .47) relative to the upper limits of validity in performance ratings.
Comparisons with other formats
BARS is no better or worse than other methods.
Variance in dependent variables associated with differences in rating systems
Less than 5 percent. Rating systems (i.e. computer rating) affect neither the level of ratings, nor subordinates' satisfaction with feedback.
Convergent/discriminant validity
Low convergent validity, extremely low discriminant validity
Specific content of behavioural anchors
Anchors depicting behaviours observed by raters, but not representing true performance levels, produce ratings biased in the direction of the anchors. This is unlikely to have a major impact on ratings collected in the field.

A suggestion could be to augment competency-based behaviourally anchored rating scales by other activity measures as well. This study only included *Production* as the ultimate measure, but other measures could also be included (as discussed below).

5.4.3 Limited performance-related criterion variables

It seems that the study could have benefited from using more performance-related measurements from utilising metrics applicable to the wider recruitment and selection processes.

With regards to performance-related measures, this study used advisor production figures for consultants with tenure longer than two years. Other activity and quality metrics underpin these production data and are regarded as international benchmarks driving sales success. The Corporate Leadership Council (CLC, September, 2004a) includes the following variables:

- How many appointments per consultant per day;
- Call ratio's – How many appointments per sale;
- Size of average case;
- Number of lives assured or policies sold
- Persistency or lapse rate of business – How long does the policy stay active?
- Product mix (i.e. sales by line of business);
- How many telephone calls made per appointment;
- Average case count per month/year.

In this study the *number of appointments per advisor per day* was included in a self-reporting format. Although the results for the sample gave a good representation of the population it is possible that systematic reporting biases may have occurred (Howell, 1999). With this in mind this variable was *only* used to gain insight into the semblance of normality of the sample, compared to the total population – not as a criterion measure. Besides this variable future studies could include those mentioned above in an *objective manner* (not self-reporting), as a valuable criterion measure of success.

5.5 CONCLUSIONS, FUTURE RESEARCH AND UTILITY

The conclusion occupies itself with a critical appraisal of the research in terms of the extent to which the research aims were met. It mentions the limitations of the study, suggests avenues for future research, comments on the practical utility of the research for organisational use, and finally reflects on the research methodology used.

5.5.1 Conclusions in terms of the research purpose

The research question comprised the following elements, and the study attempted to answer them succinctly:

- *What is the personality profile of a successful financial advisor in the Bancassurance environment?* The competency framework hypothesised by a job analysis process was confirmed by the study both in terms of the competencies associated with success as, and the respective weightings allocated to each competency in terms of the requirements of the job.

The study confirmed the hypothesised competency framework as derived from the job analysis, and ten of the 20 competencies emerged as practical discriminators between high and low-performing advisors.

- *What is the ability profile of a successful financial advisor in the Bancassurance environment?* The study confirmed that ability is a practical and statistically significant predictor of an advisor's success. In this study high-performing advisors' ability scores were in excess of one standard deviation higher than low-performing advisors. The study further confirmed the *combined effect* that ability and personality have when generating a Person Job Match report.
- *What is the biographical and sociographical profile of a successful financial advisor in the Bancassurance environment?* Of the 17 biographical and sociographical variables scrutinised, the high-performing and low-performing advisors differed on 12 of these variables at different levels of confidence, while no significant differences were found on five of the factors.

Schmidt and Hunter (1998) concluded that broad consensus has been reached in two areas. Firstly, cognitive ability appears to be a relevant predictor of job performance across virtually every job studied. Secondly, there are broad personality traits that show generalisable validity across a wide range of jobs. It is also clear from the literature that standardised measures of ability, skills, and personality are extensively used in personnel assessment, and have been the focus of a substantial body of research (Murphy & Davidshofer, 1998). This broad consensus is confirmed by this study, both with regards to ability differentiators and personality measures, and with regards to the use of validated instruments in the selection of financial advisors in the Bancassurance environment. The study further isolated biographical and sociographical variables that discriminate between high-performing and low-performing advisors.

5.5.2 Reflections on the research methodology

A holistic approach informed the research process. It is a model in which a theoretical and paradigm perspective consistently informed the research strategy, theory construction and research format. It is illustrated in Figure 16. The theoretical perspective harnessed in this study was a competency-based model that was filtered through the lenses of both the positivistic and interpretive paradigms. This culminated in a research format that used both quantitative and qualitative techniques in order to bridge the gap between theory and praxis with scientific integrity. The research attempted to systematically follow this holistic approach in the exposition of the problem, the scrutiny of the data obtained, the reporting of results, and the critical evaluation of the research – following the logical sequence of the model.

The use of this rather integrative or eclectic research methodology for a seemingly straightforward positivistic research challenge is a function of the author's extensive experience with the particular organisation and with the distribution environment over many years. This methodology could, however, also have been regarded as overly inclusive and its application throughout the research process could easily have diluted as the research progressed. It is, however, the contention that this approach added value to the depth of the research and was consistently applied to direct the study

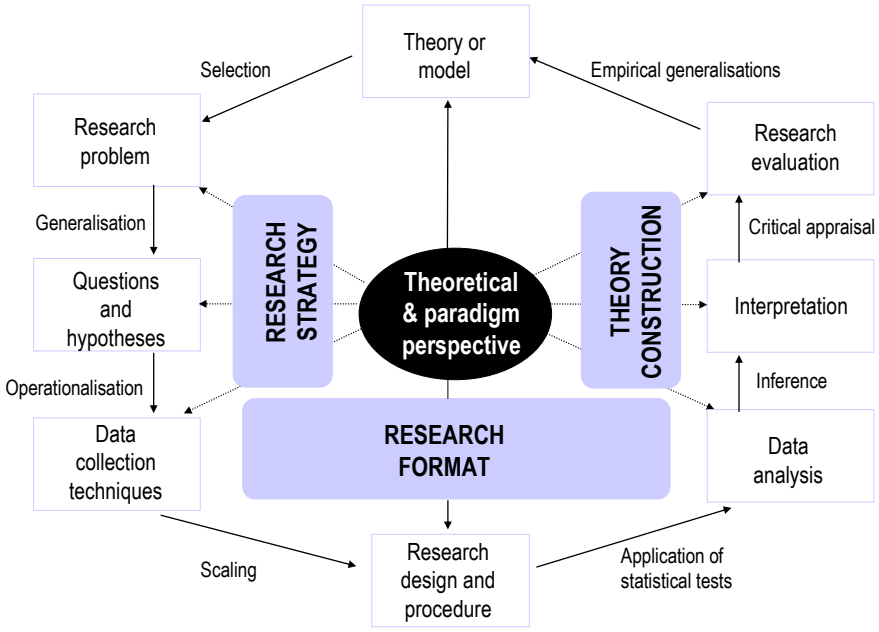


Figure 15. Summative comments on research methodology

5.5.3 Avenues for future research

Future research could focus on the following:

- Attempt to build *regression models* using personality, ability, biographical and sociographical variables in the prediction of success.

- Since ethnicity is such a strong discriminator for the success of an advisor in the current environment, all black Bancassurance advisors in the industry and across all major banks could be included in a study to develop a practical and relevant model for success.

- *Experimental research* could be considered to *prove causality* between the competency matrix and ability on the one hand, and advisor success on the other.

- Investigate the utility of the recruitment and selection systems.

Figure 17 summarises the theoretical framework for validity studies used in this research and how they relate to a recruitment and selection process (Anastasi & Urbina, 1997; Cascio, 1998; Muchinsky et al., 2002). The focus of this study was to investigate the linkage between predictors and criteria. Future research could proceed to investigate the subsequent three steps in the framework: *Design of recruitment strategies, Selection systems and influencing factors,* and *Assessing the utility of selection systems.*

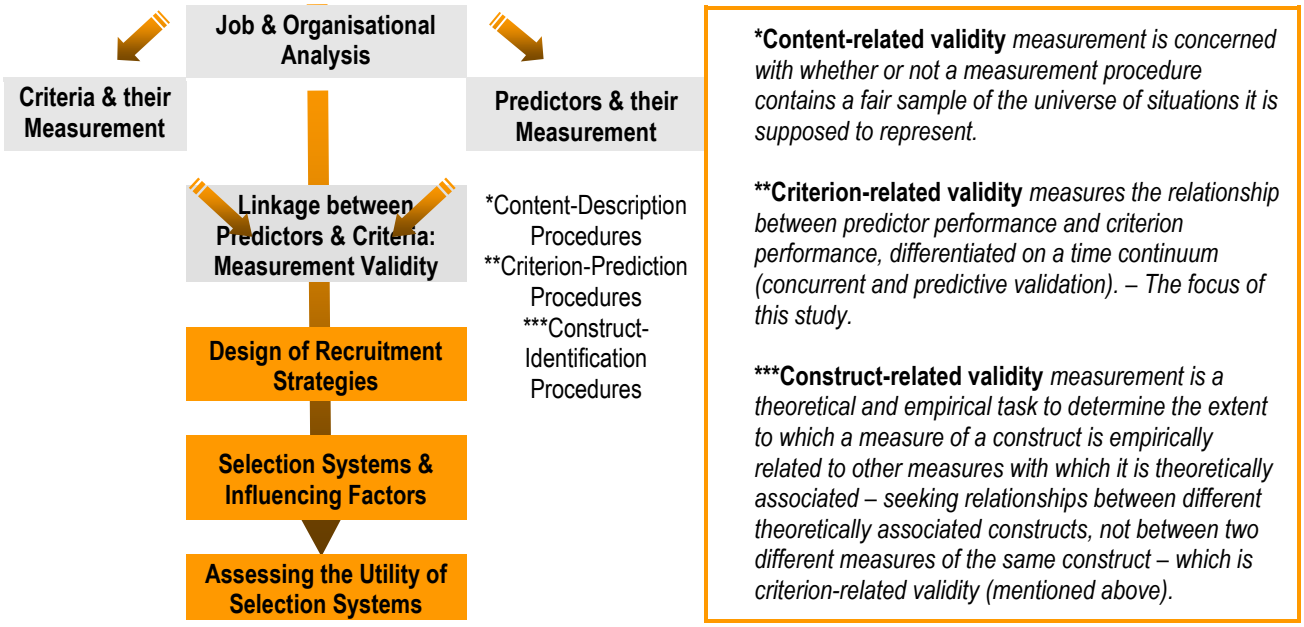


Figure 16. Future leverage areas emerging from this validity research

The Corporate Leadership Council (2004c) suggests the following factors or steps in the recruitment and selection process, which could be included in future research:

> **Recruiting:**
> Factor 2 – Rely primarily on personal recruiting resources
> Factor 3 – Use a wide variety of recruiting resources
> Factor 4 – Keep a steady candidate flow
> **Selecting:**
> Factor 10 – Have at least 12 recruits per opening.

Factors 2 and 3 could reveal where recruiting managers obtain their recruits, and Factor 4 could include how long these candidates were cultivated. Factor 10 could provide valuable information to inform recruitment ratios. The Corporate Leadership Council (id.) further suggests that companies measure the success of recruiting programs using the following metrics (something that could be considered for future research):

> - New hire satisfaction;
> - Quality of hire;
> - Retention;

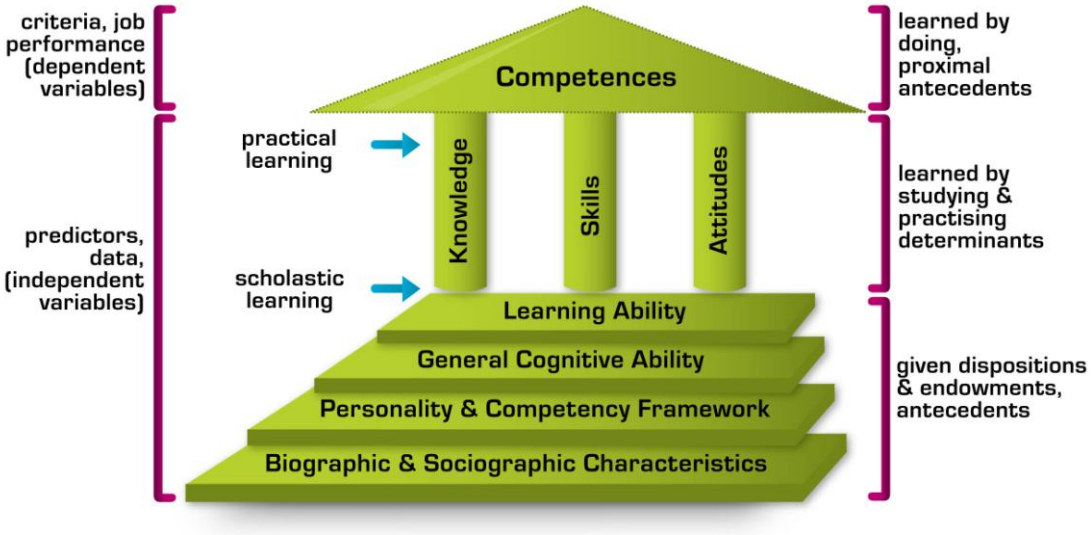
- Time to fill;
- Candidates per hire;
- Candidate source;
- Cost per hire;
- Hiring manager satisfaction.

The inclusion of both recruiting and selection variables in future research would enhance the South African practice of measuring the effectiveness of recruiting practices. It would also inform the utility of validated instruments and processes. This confirms the international trend that is increasingly focusing on both the use of validated instruments and as process variables that predict performance.

- Investigate the relationship between cognitive ability and learning potential

The study used a competency and competence framework for work performance, as illustrated in Figure 19. It investigated the predictors for the success of an advisor in the Bancassurance environment. The investigation included the foundational building blocks of this model namely, biographical and sociographical variables, personality – as measured through a competency framework – and ability – as measured through a critical reasoning questionnaire.

Figure 17. Future research on learning ability



The new world of work of the professionalised financial advisor is characterised by rapid change and also technological advances in terms of customer engagement and the diffusion of knowledge. For individuals in the sales environment this presents a challenge to constantly acquire new skills, to process problems in new ways and constantly evolve in their problem solving efficiencies, all of which emphasises the importance of learning ability. Future research

could investigate the relationship between ability and personality measures and *learning potential,* and the relation thereof to success of a financial advisor. This would also address the supposed dilemma reported in the literature (CLC, 2004a) that measuring analytical ability of advisors is difficult – by approaching the role of ability from a learning potential point of view. Experience in the emerging market distribution environment has proven the criticality of applicants' learning ability and its combination with ability.

5.5.4 Conclusions in terms of practical significance

Besides meeting the requirements of scientific rigor, the research was influenced by a research framework that attempted to integrate theory *and* praxis. The practical significance of the research within the organisation was indicated by four utility measures. These utility measures and the extent to which the study contributed to their accomplishment is discussed.

- **Better utility in the use of measurement devices in the recruitment and selection processes**
  The standards suggested by LIMRA (2000) for choosing and selecting the right test for selection directed the study. This checklist was populated at the *outset to direct* the research and was adapted to include the biographical and sociographical variables indicated in this study's parameters. The study addressed all areas of concern and the research conclusively indicates the use of the suggested instruments for application in the organisation's recruitment and selection. The results are populated in Table 73.

Table 73. ***Research results in terms of the choice and validation of assessments***

Questions	This study
1. What do you want the test to do? Predict the fit with job requirements	Describe Explain ⇨ Predict
2. What does this test purport to do? Provides a job-related competency framework and the candidate's match with those competencies. Predicts the job match	Describe Explain ⇨ Predict
RESEARCH CONSIDERATIONS	
3. Is the test grounded in research?	⇨ Yes No Don't know
4. What type of validation strategy is/was used?	⇨ Concurrent Construct Criterion
5. Does the test make predictions about future performance? Only the candidate's fit to job requirements. Job requirements are clarified in terms of essential, important, and desirable competencies. Need to determine if these competencies in fact do predict success	⇨ Yes No Don't know
6. Is the test valid for your wants/needs?	⇨ Yes No
7. Is the test reliable?	⇨ Yes No
8. Was/Is the research sample representative of the group?	⇨ Yes No
9. How large is/was the research sample?	185
10. Is the study reliable to generalise sufficiently?	⇨ Yes No

11. What type of reliability (consistency of responses) is/was offered?	Test-retest ⇨ Internal consistency
12. Does the test publisher do ongoing validity research?	⇨ Yes No Don't know
LEGAL & EE CONSIDERATIONS	
13. Will the test withstand a court challenge? The test will, but does it make business sense and will the recruiting variables withstand the South African scrutiny. In addition, biographical and sociographical variables and their relationship to success were isolated.	⇨ Yes No Don't know
14. Does the test discriminate on non-relevant job factors? The test does not, but does the study reveal certain other vital biographics (i.e. experience, background, financial status etc.)	⇨ Age, gender etc. No Don't know
15. Does the test supplier provide legal support? Pertaining to the test but not for the selection process	⇨ Yes No Don't know
ECONOMIC CONSIDERATIONS	
16. Does the test provide a return on investment? Not in isolation, but in conjunction with other process measures (screening, initial interview, structured selection interview)	⇨ Yes No Don't know
17. Do the recruitment variables (screening, biographics) provide a return on investment?	⇨ Yes No To be confirmed
PRACTICAL CONSIDERATIONS	
18. Will the test be accepted by test administrators? Psychometrist not needed to administer the instrument, in line with business requirement for decentralised administration	⇨ Yes No Don't know
19. Is it easy to administer and score? Yes, computer based, with centralised scoring and interpretation	⇨ Yes No Don't know
21. Will the test be accepted by test takers?	⇨ Yes No Don't know
22. Are the results easy to interpret? Yes, Person Job Match report provide enhanced utility.	⇨ Yes No Don't know
23. Does the test publisher provide materials support? Yes, at a cost	⇨ Yes No Don't know
24. Does the test publisher provide decentralised service?	⇨ Yes No Don't know
25. Does the test fit into the company's selection process?	⇨ Yes No Don't know
26. How would the test compare to other selection tests?	⇨ Better than Same Worse than
27. Will the test publisher help to monitor the test results to assess validity within your organisation? This study is testimony to that	⇨ Yes No Don't know

- **Enhanced retention figures – realistic job preview according to a validated model**

  The second utility objective was related to enhanced retention figures. It is generally accepted that a realistic job preview is essential for retention – more so in the advisor environment, which is purely commission driven. Experience has shown that attrition increases when managers "sell" the position to applicants and applicants are not adequately informed of the associated cash flow and income risks. The study provided a clear picture of the job requirements of the position and what the recruiting manager should look for in a candidate. This would empower managers to present the career with more certainty and clarity, and not to "oversell" it, which could, in the longer term enhance retention figures.

- **An accelerated production curve – quicker to produce due to the goodness-of-fit with the job**

The third utility objective was related to an accelerated production curve. The research confirmed that it takes in excess of two to three years (the so-called 1000 days) to get an advisor to become self-sustainable. It is, therefore, essential that the right people be introduced to the position. A good person-fit to job requirements will result in an accelerated learning curve, and hence reduce the time it takes to achieve full production. The study provided clear parameters of the personality, ability, and biographical and sociographical profile of a potentially successful advisor.

- **Validated instrument use in the selection process, which is the scientific translation of the assessment requirements which is mentioned in the Employment Equity Act in South Africa**
  The fourth utility objective involved the use of validated measurements in the recruitment process. The research confirmed the success predictors of advisors in great detail and crystallised the Person Job Match report format that could be used to extract maximum utility out of the competency-based selection model. It further isolated biographical and sociographical variables that could be regarded as indicating authentic requirements of the job. These variables could be used in the recruitment processes and since they are validated it could be assumed that they would meet the requirements of the Employment Equity Act of South Africa (by not unfairly discriminating against minorities).

5.5.5 Conclusions for business

Business is often accused of de-theoretisising issues and reducing them to pure pragmatism, by asking the question: *So what?* By asking this question, the fundamental schism between theory and praxis is articulated. This study attempted to bridge this gap. The organisational value of this study could be summarised as follows:

- *Follow a rigorous recruitment and selection process by using variables that have theoretical integrity in predicting job success.* The following process could be considered as they take into account the various ratios and the model presented in this study:
  - Decision to recruit, determine 75% percentile pay level;
  - Draft and publish advertisement for placement internally and/or externally;
  - Acknowledge receipt of applications and obtain permission to conduct reference checks;
  - Screen CVs according to the job specification requirements and the biographical and sociographical predictors identified in this study;
  - Do credit, criminal and qualification checks on selected (MIE, Kroll) candidates;
  - Invite candidates for psychometric assessments as per the respective position requirements, ten or more for every position is a good number to start with;

- Conduct the relevant ability, and personality assessments prescribed for the position;
- Apply cut-off scores on ability assessment;
- FIVE candidates need to survive this process for every ONE vacancy to be filled;
- Invite these five candidates for a competency-based Interview (CBI);
- Conduct the CBI (HR, Line Manager & Senior Manager to attend), score the persons;
- If it is a management position, an assessment centre (AC) will be conducted here, in which the requirements of the position will be simulated;
- From this pool of five candidates, one will be offered the position.

- *Use multiple hurdles in the recruitment process*

  Using multiple hurdles in the recruitment process provides the highest return on investment. Return on Investment (ROI) is calculated by net increase in revenue divided by total costs. The returns below are for recruiting a financial advisor utilising a ROI calculator (SHL, 2008):

  - Traditional sift (CV) with structured interview - LOSS
    The average rate of return is: 12%
  - Manspec (biographical and sociographical) and psychometrics
    The average rate of return is: 126%
  - Interview sift, manspec (biographical and sociographical), psychometrics and competency-based Interview (CBI)
    The average rate of return is: 189%

- *Becoming a successful financial advisor is a brutal journey and not for the faint hearted – half the soldiers die on the battlefield in the first year and almost as many in the second year.* As illustrated in the movie *The Pursuit of Happyness* (Figure 19), successful advisors will need to be able to sustain themselves financially in the early days of the journey – the more reserves they have, the better. They need to be comfortable amongst the affluent and must quickly become fluent in the vernacular of financial planning. Successful candidates will come from smaller and stable families. Recruiting for the job is even more challenging and requires a scientific approach combined with a meticulous process, unwavering discipline and intractable resilience. This study contributes solid science, advises on the process, and gives a clear picture of what to look for.

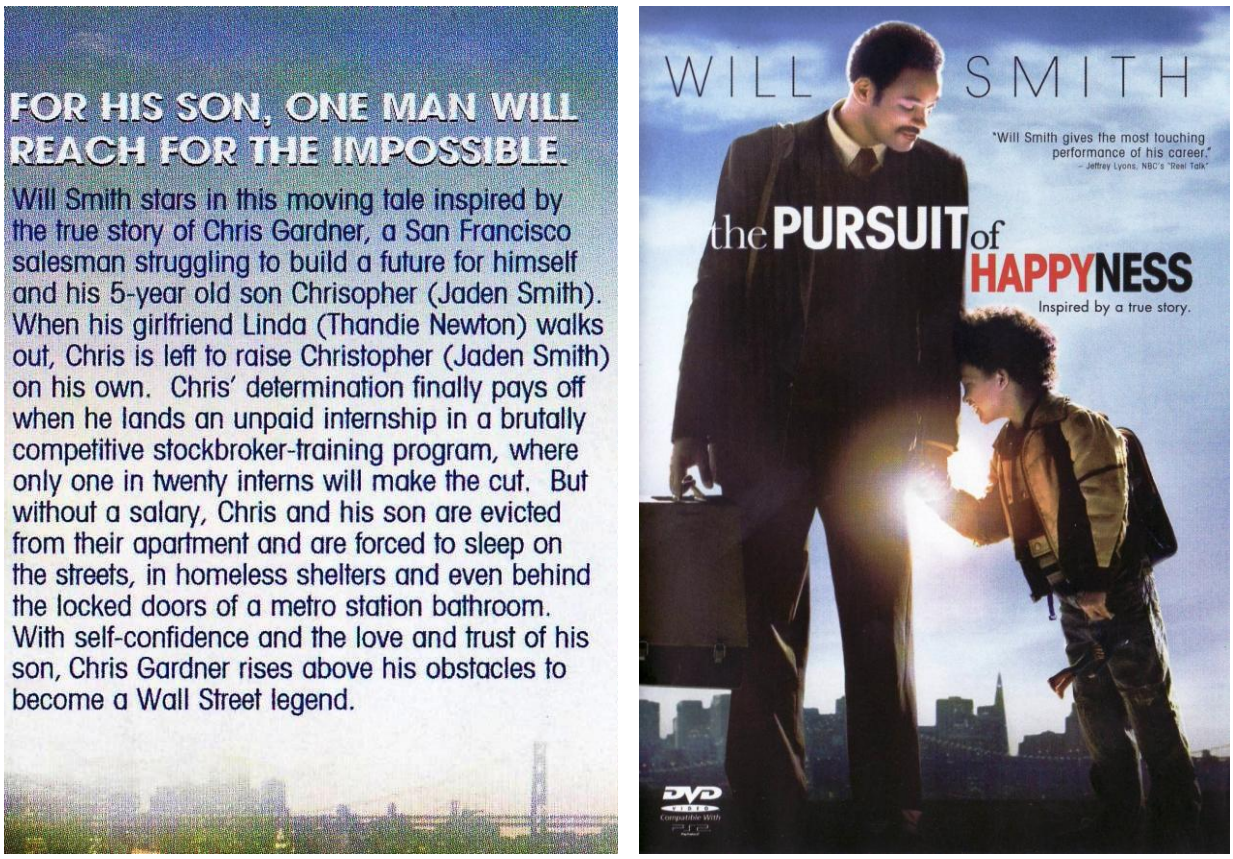


Figure 18. The Pursuit of Happyness (sic)

- *If all else fails, ability is still the best predictor of success.* In the vernacular of the movie *The Pursuit of Happyness*, the challenge is to find candidates who can solve the Rubik's cube under pressure. This study provides evidence of the critical role that ability plays in advisor success and how to measure it. You may, however, need to find other ways to measure *learning ability*, which will become the differentiator in the customer-centric knowledge economy and in the new world of the professional advisor.

- *Successful advisors can sustain high levels of activity.* The difference between being in the bottom 25% of the 2005 pack of advisors and earning on average less than R85 478 per year, compared to being amongst the top 25% of the pack and earning on average R513 459 per year, is two appointments per day above an average of five appointments per day. You need to find ways to spot individuals with above average levels of energy and drive to sustain the rigorous routine associated with this job. This study proves beyond doubt that this energy is a composite of multiple competencies and that is possible to recruit these individuals by following a thoughtful process with multiple measures.

- *Do not recruit anything that moves. "Fail the failures fast", recruit the best and stick with them*. The difference in income between the bottom 25% and the top 25% advisors is in excess of R427 000 per annum and the top 50% of advisors bring in 75% of the business. It is therefore not sustainable to recruit all willing applicants or to oversell the career to applicants. Also, it is advisable not hold onto those who survive two years – they may not have what it takes to make it in the long run. Every high-performing advisor was worth an estimated extra R200 000 more per annum in 2005. Sometimes it is worthwhile to proceed with caution in your recruitment efforts, to trust the process in order to recruit faster – and more profitable. Potential high performers still need to be cultivated for in excess of two to three years before they deliver peak performance, but the reward is exponential.

5.5.6 After all is said and done: The XYZ

This study investigated the relationships between personality, ability, and biographical and sociographical factors on the one hand, and criterion measures of job-relevant behaviour on the other. The aim of the study was to isolate success-predicting factors for an advisor in a South African Bancassurance operation. The research was done by means of a criterion-related concurrent validation study, approaching it from positivistic and interpretive paradigms. The methodology used enabled the study to address both the validity *and* utility of assessments in the selection processes; the competency *and* competence of advisors. The study used predictor *and* criterion variables, and attempted to bridge the gap between theory *and* praxis in a balanced way and with scientific integrity.

The sample consisted of 185 advisors with two years or longer sales tenure as advisors. Predictor variables included measurement on a 20-dimension competency model, an ability assessment, and 17 biographical and sociographical variables related to the position. Criterion variables included production figures and managerial ratings on advisor performance. Meaningful predictors for the success of financial advisors were found for personality, and the hypothesised competency model derived from a job analysis was confirmed as a predictive tool to select advisors. Ability proved to be a statistically significant predictor for success, and its combination with personality – as reflected in a Person Job Match report – increased the utility of the hypothesised competency model. The following biographical and sociographical variables provided statistically significant differentiation between performers: Gender, age, ethnicity, number of contracts held at inception of advisor career, size of family, market segment at inception of advisor career, and mobility within market segments after career inception. As with a prime number, that can only be divided by itself and the number one, the study also attempted singularity of purpose. As a full alphabet contains twenty six letters, the study attempted to address all related aspects, and all that is left is for the reader and organisation to extract the value from the study.

Appendix A – Protocol and Test Administration

Optimising People Potential – Concurrent Validation Protocol and Test Administration

Preparation in Advance

Preparation one week in advance

Run through the following checklist a week before the session.

1. Do you know where the venue is?	
2. Do you know how you will get there and travel time needed?	
3. Confirmed with the COMPANY SDA member to meet you there?	
4. Have a full updated list of the manager and advisors to be there?	
5. Confirmed with COMPANY SDA member that everybody will be there?	
6. If not all present, when and how will they be assessed?	
7. Confirmed with manager that administration is first on the agenda?	
8. Confirmed that delegates will bring ID numbers to assessment	

Preparation before leaving for the venue

Run through the following checklist before leaving for the venue where the administration will take place.

1. Do you have 30 or more (enough) OPQ32i answer sheets?	
2. Do you have 30 or more (enough) VC 1.1 answer sheets?	
3. Do you have 30 or more (enough) Biographical Forms?	
4. Do you have 30 or more (enough) OPQ32i Question Booklets?	
5. Do you have 30 or more (enough) VC 1.1 Question Booklets?	
6. Do you have 30 or more (enough) Criterion Data forms?	
7. Do you have the FAQs, protocol and program for the session?	
8. Do you have the instruction sheet for the VC 1.1?	
9. Do you have the instruction sheet for the OPQ32i?	
10. Do you have a name list of everybody who has to be there?	
11. Do you have the alarm clock and is it working?	
12. Do you have enough sharp pencils and erasers?	
13. Have you confirmed the time of the meeting?	
14. Have you confirmed that you will be on the agenda first?	
15. Have you completed the *Background Information* on the questionnaires (Criterion Data Forms) that the manager is going to complete on each of his/her advisors?	

Preparation on Arrival

Prepare the Venue

On arrival let the COMPANY member take you to the room and make sure the room is set up for testing. Meet the manager and thank him/her for the opportunity to take some time and assure him/her of the benefits. Explain the process briefly to him/her and mention that their contribution in providing feedback on their advisors forms an integral part of the success of the study. Mingle with the advisors and set them at ease.

Why is it done?

Preparing the group and conducting the assessment

COMPANY wants to optimise its people potential and make sure it recruits the best, and once recruited be able to do the relevant development of its people. Sales success in the Assurance Industry is determined by a multitude of factors inherent to or acquired by an Intermediary. These factors could include personality variables, skills, experience, environmental, and organisational factors. In many cases however we do not know what makes one person more successful that another. This department is in the business of adding value in this people process. We are therefore attempting to answer the following question:

What constitutes the competency and biographical profile of a successful financial advisor in the Bancassurance environment? If we know that, how can we optimise the company's profitable leadership position through its COMPANY distribution sales force?

What are we going to do?

- Explain the testing program for the next two hours, and add that we will break once the ability questionnaire has been completed. Explain that before every instrument, instructions will be given.
- Everybody in the COMPANY is requested to fill out three questionnaires:
    - A biographical questionnaire – approx 20 minutes
    - A personality (OPQ32i) questionnaire – approx 1 hour
    - An ability (VC1.1) questionnaire – 30 minutes.
- Explain that *managers* will not complete the Personality Questionnaire (already done earlier) and will only do the ability questionnaire, and while the advisors are doing the personality questionnaire the manager will be filling in some other feedback forms (Criterion Data).
- Explain that *advisors* will do biographical, personality, and ability, questionnaires/test (not criterion data).
- Ask everybody to switch off their cell phones, because once administration has commenced no interruption is allowed. Secretary to hold all calls for the manager.

What is a *concurrent validation study*?

Typical organisational challenges like these are normally addressed by what is called a *concurrent validation study.* What you basically do is to get as much relevant data as possible on people currently doing a job. By various statistical and mathematical calculations you are able to isolate what factors are indicators of success in this specific environment. You then factor this in when you recruit new people and you also then know what to develop in the current population in order to enhance performance

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How will the questionnaires to be filled out?

Explain that all questionnaires are paper and pencil based.
Put the bag with pencils and erasers and sharpeners on the table and ask testees to take a pencil and eraser. Place a couple of extras in the middle of the table in case someone needs a replacement pencil.

Can I fail the questionnaires and if so, will it be held against me?

While everybody is taking a pencil and eraser, explain the following: ***You may be wondering if you can fail the questionnaires.***
No. Everybody's personality differs and not one is exactly successful or unsuccessful for the same reason. We want to determine a broad profile of the most critical predictors of success, which may include factors like experience, and external factors. The results of the questionnaires will not be revealed to anyone without your consent, and it is illegal to use personality or ability data to conduct disciplinary action. Apart from being used for research purposes, the results can at most be used for developmental purposes, or for recruitment and selection at the onset of a business relationship.

What about confidentiality of the information?

You may be wondering about the confidentiality of the information. As you may know, once data are captured into a statistical program the data becomes a data unit with no identity attached to it. As far as statistical analysis is concerned, who the person behind the data is, is not really as relevant as the response given to a certain question. What is important is what the relations are between the different data units and what those relations tells us about advisor success.
The use of the questionnaires is governed by the Health Professionals Council of South Africa (HPCSA), which sets standards for the professional conduct of all related professionals. Therefore, individual results cannot be revealed to anybody without your consent. The consent forms you sign testify to this fact.
Hand out consent forms for them to sign, while you carry on talking about the point below.

What is in it for me as an individual?

You may be irritated by this exercise and ask what is in it for you. Once the study is concluded your competency profile can be revealed to you, at your request. A variety of reports can be generated with the same set of data, which can be used for developmental purposes. What has been done in the past is that a developmental action planner is generated and in consultation a developmental action plan is plotted to facilitate development in identified focus areas. The same data set can be used to enhance a team's performance.

What is in it for the organization?

Maybe you are not really concerned about it but, the organisation has a lot to benefit from this exercise. The organisation stands to benefit enormously. The cost of acquiring the right people and keeping them is the highest cost item in the distribution environment. The following are the success measures of this project:

- Enhanced retention figures – know what the concurrent success predictors are in order to recruit, keep and develop quality individuals;
- An accelerated production curve – quicker to produce due to a better fit;
- Effective sales activities – developing and managing key strengths;
- A validated recruitment process which is a legislative requirement, and
- Better utility in the use of psychometrics and recruitment processes.

Test administrators and project team

The following trained and accredited test administrators will assist in the collection of data:

Mention the names of the administrators

Biographical questionnaire

Explain that the first questionnaire is the biographical questionnaire. Hand out the questionnaires while you keep talking.

The biographical questionnaire is designed to give us a lot of information about you as a person. We also added some manspec questions which all of you completed on your initial application. We want to determine whether these questions are valid and whether they tell us something about success as an advisor. This questionnaire is taken down first, and needs meticulous coaching since we use specific boxes for specific information. Accuracy is extremely important therefore we will spend some time on it and proceed slowly.

Biographical form Page 1

Page 1:	
SURNAME; INITIALS	Fill in the required information
TODAY'S DATE	**Fill in date of appointment at the company**
AGE	Age in years on the testing day
GENDER	Indicate *male or female*
EDUCATION LEVEL	Indicate the relevant qualification
IDENTIFICATION NO	Fill our correctly please
PLACE OF RESIDENCE	Place of residence, mark the relevant option
HOME LANGUAGE	Choose one
ENGLISH IS MY … LANGUAGE	Choose an option

Instruct: Do not start to fill in Page 2 until requested to do so

Biographical form Page 2

Page 2

Explain that we are using the boxes JOB TITLE 1 APPLYING FOR, JOB TITLE 2 APPLYING FOR, CURRENT JOB TITLE & OTHER BOXES to record our own information. Go slowly and make sure everyone is with you every step of the way. These data entries are read by a scanner and need to be accurate for every box, otherwise it invalidates the whole data set.

JOB TITLE 1 APPLYING FOR – Use only 7 Blocks							
In what market segment do you currently operate? A – Lower Affinity B – Upper Affinity C – SME D – Priority E – Elite	**Have you changed market segment since joining the COMPANY?** A – Yes, going up in the segments B – Yes, going down in the segments C – No change since joining	**In the family you grew up, how many children were you including yourself?** A – 1 child B – 2 children C – 3 children D – 4 children E – 5 children F – 6 or more	**Where did you fit into this family?** A – Only Child B – Oldest C – Youngest D – Middle child of 3/5 children E – Second Oldest in family of 4/5 children F – Second youngest in family of 4/5 children G – Other	**What was your property status when you joined the COMPANY?** A – Did have a bond when joining B – Bond was 50% less than the value of the property C – Did not have a bond when joining	**What was your marital status when you joined the COMPANY?** A – Married WITH dependents B – Married but NO dependents C – Single/ Divorced/ Widowed/ Separated but WITH dependents D – Single/ Divorced/ Widowed/ Separated but with NO dependents	**What were your Net Assets (NA) when you joined the COMPANY?** A – NA were worth 6 times monthly income B – NA were worth 5 times monthly income C – NA were worth 4 times monthly income D – NA were worth LESS than 4 times monthly income	**Make sure 11 blocks are open**

Make sure the participants fill in the right set of boxes to the RIGHT of the one you just did – It is titled **JOB TITLE 2 APPLYING FOR**

Biographical form Side 2

JOB TITLE 2 APPLYING FOR
What is your manager's first Initial and surname

Biographical form Side 2

CURRENT JOB TITLE					
What type of experience did you have before joining the COMPANY? A – Banking B – Assurance (non-sales) C – Agent or Advisor D – Broker Advisors E – Independent Broker F – Teaching G – Own Business H - Other	**How many jobs did you have before joining the COMPANY?** A – 1 B – 2 C – 3 D – 4 E – 5 F – 6 and more	**How many active life/investment contracts did you have when joining the COMPANY?** A – 1 B – 2 C – 3 D – 4 E – 5 F – 6 and more	**Do you have any relatives in the Assurance Industry when you joined the COMPANY?** A – Yes B – No	**What did your father or mother mainly do for a living (career)? Report only on one of the two** A – Government B – Own Business C – Teacher D – Professional E – Trade F – Financial Services G – Other	**Make sure 13 blocks are left blank**

Biographical Form Side 2 (cont.)

OTHER												
C Code – Only the numbers not the C				Two Digit Branch Code (Refer to list attached hereafter)		On average, how many appointments do you have per day From 00-99		From 00-99 years	How long were you with the company before being appointed in this managerial position?	How many years' work experience did you have before joining the COMPANY? From 00-99		Make sure one box is open

Fill out the box indicating years in current position

Ability: The VC1.1 critical reasoning questionnaire

10 minute break, inform manager on criterion data

Immediately after the biographical questionnaire continue with the VC 1.1 Critical Reasoning questionnaire.
Hand out the VC 1.1 (purple) answer sheets first – biographical side (Side A) facing up. Open ***your*** *Administration Instructions* and follow the instructions in the booklet verbatim – they take you through the administration effortlessly. Start by completing the biographical information – Point 1 in the instructions. Only the following items are needed on Side A, since they were completed as part of the *pink* biographical questionnaire.
Complete only:
SURNAME;
INITIALS;
GENDER;
AGE;
TODAY'S DATE;
IDENTIFICATION NUMBER.
Once you are done, please proceed with the instructions as printed on the A*dministration Instructions*

10 minute break. During break take the manager aside and explain what is requested in the criterion data questionnaire.

During the break you do not have much time to mingle with the candidates.
You need to prepare the room where advisors are being assessed for the next test administration after the break:

- Collect all the Ability booklets and answer sheets. Make sure that all questions were answered.
- Make sure all pencils are still sharp – and exchange, if needed
- Place the following at every seat: OPQ32i answer sheet, with biographical side facing up.
- Once all have returned (ask the manager to get advisors to return) you need to get them going again.
- Explain the questionnaire concept, and let them commence with biographical information and then turn over and proceed.
- When you see that they have almost finished, walk around and place an OPQ32i booklet next to each person.

OPQ32i Personality Questionnaire (OPQ32i)

This benchmark personality questionnaire measures 32 personality factors relevant to work behaviour (it is the orange answer sheet and yellow booklet). It takes approximately 45 minutes to complete.

- Follow the procedure on ***your*** *Administration Instructions* **card. When reaching the biographical part under A*dministration Procedures,* complete ONLY SURNAME, INITIALS, AGE, GENDER, TODAY'S DATE, and IDENTIFICATION NUMBER.**
- Once done, immediately proceed to explain the personality questionnaire (OPQ32i). Before they begin with the questionnaire, thank everybody for their participation and explain that they may leave, once finished. Read the instructions and have everyone complete the questionnaire (approximately **45 – 50 minutes**).
- Walk around and make sure that they understand the concept of "most" and "least" responses, with only two responses per box of four statements
- Hand out criterion questionnaires to manager

Managers provide criterion data about their advisors

Observable behavioural data (criterion data) is collected from managers about their advisors. This is a very important part of the validation study, since it gives us criterion data to enhance the integrity of the study. We use this behavioural data provided by the manager on his/her advisors with production figures to do our statistical analysis. We have discovered that production figures alone are not enough to provide clear indicators; therefore we need these behavioural ratings from the managers (on their advisors).

While the advisors are completing the OPQ32i questionnaire, the manager fills out a competency questionnaire on each of his/her advisors.

The questionnaire reports on 20 generic competencies and is filled out for each of the manager's reporting advisors. Work through the instructions with the manager and provide him/her with one questionnaire per advisor (*which you have already populated with the names and advisor C-codes).*

Brief the manager on the process as indicated on the answer sheets (do not give him the forms yet):

- Explain the competencies – the same as those advisors are reporting on
- The results will not be discussed with advisors, and will not be used for performance management
- Be cognizant of effects of behaviorally anchored questionnaires: halo effect, central tendency etc.

Appendix B – Criterion Data Questionnaire

FINANCIAL CONSULTANCY

Strictly confidential

Evaluation of advisors

1. BACKGROUND INFORMATION

Kindly complete the following:

Surname and initials of manager: _____

Surname and initials of employee/advisor: _____

Employee/advisor code: _____

2 INSTRUCTIONS

In order to ensure that the occupational assessment practices of COMPANY comply with the current labour legislation, we are conducting a study to confirm the validity of our assessment procedures. You are required to rate your advisors on a number of statements relating to certain behaviours that are critical to their job performance. Use the scale outlined on the next page as a guide or norm to indicate to what extent the statements describe the employee's work performance. Please study the descriptions carefully before giving a rating.

It is important to remain as honest and objective as possible. This information will only be used for research purposes, is confidential, and will in no way effect the current position and status of the employee. In order to rate the employee as objectively as possible, the following guidelines should be followed:

- **Avoid one overall impression; rather rate each statement independently;**
- **Avoid rating all employees high (or low);**
- **Use the full scale of 1 to 5; try to avoid 3 or middle ratings.**

Thank you for your assistance in this matter.

Rating scale	Description
1 Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.
2 Below-average performance	The employee's performance of the activity is below standard, must still improve and does not always meet expectations.
3 Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations
4 Above-average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.
5 Outstanding performance	The employee's performance of the activity is excellent, superior and remarkable.

Rating	*Competency*	*Definition*
	Deciding and Initiating Action	• Making effective decisions even under difficult circumstances. • Taking responsibility and showing initiative.
	Leading and Supervising	• Providing others with clear direction. • Establishing standards of behaviour for others. • Motivating and empowering individuals.
	Working with People	• Demonstrating interest in others. • Working effectively in teams. • Building team spirit. • Showing care and consideration for individuals.
	Adhering to Principles and Values	• Upholding ethics and values. • Acting with integrity. • Promoting equal opportunities.
	Relating and Networking	• Establishing effective relationships with customers and staff. • Networking effectively within and outside of the organisation. • Relating well to individuals at all levels.

Rating scale	Description
1 Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.
2 Below-average performance	The employee's performance of the activity is below standard, must still improve and does not always meet expectations.
3 Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations
4 Above-average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.
5 Outstanding performance	The employee's performance of the activity is excellent, superior and remarkable.

Rating	*Competency*	*Definition*
	Persuading and Influencing	• Making a strong impression on others. • Gaining agreement and commitment through persuasion. • Negotiation and managing conflict.
	Presenting and Communicating Information	• Speaking clearly and fluently. • Expressing opinions and arguments clearly and convincingly. • Making presentations with confidence.
	Writing and Reporting	• Writing clearly and succinctly in an interesting and convincing manner. • Structuring information in a logical manner to facilitate the understanding of the intended audience.
	Applying Expertise and Technology	• Applying specialist technical expertise. • Developing job knowledge and expertise. • Sharing knowledge with others.
	Analysing	• Analysing data of a verbal and numerical nature and other sources of information. • Breaking information down into components. • Probing for further information. • Generating workable solutions to problems.

Rating scale	Description
1 Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.
2 Below-average performance	The employee's performance of the activity is below standard, must still improve and does not always meet expectations.
3 Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations
4 Above-average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.
5 Outstanding performance	The employee's performance of the activity is excellent, superior and remarkable.

Rating	*Competency*	*Definition*
	Learning and Researching	• Learning new tasks quickly. • Remembering information. • Gathering data for effective decision making.
	Creating and Innovating	• Producing new ideas and insights. • Creating innovative products and solutions. • Seeking opportunities for organisational change and improvement.
	Formulating Strategies and Concepts	• Working strategically to attain organisational goals. • Developing strategies and taking account of a wide range of issues that impact the organisation.
	Planning and Organising	• Setting clear objectives. • Planning activities well in advance. • Managing time effectively.
	Delivering Results and Meeting Customer Expectations	• Focusing on customer needs and satisfaction. • Setting high standards for quality and quantity. • Consistently achieving set goals.
	Following Instructions and Procedures	• Following instructions and procedures. • Adhering to schedules. • Demonstrating commitment to the organisation.

Rating scale	Description
1 Unsatisfactory performance	The employee's performance of the activity is unacceptable, poor and must improve drastically.
2 Below-average performance	The employee's performance of the activity is below standard, must still improve and does not always meet expectations.
3 Adequate performance	The employee's performance of the activity is of acceptable standard and meets expectations
4 Above-average performance	The employee's performance of the activity is above standard, of a high standard and fully meets expectations.
5 Outstanding performance	The employee's performance of the activity is excellent, superior and remarkable.

Rating	*Competency*	*Definition*
	Adapting and Responding to Change	• Adapting to changing circumstances. • Embracing change. • Being open to new ideas. • Dealing effectively with ambiguity.
	Coping with Pressures and Setbacks	• Working productively in a stressful environment. • Controlling emotions in difficult situations. • Handling criticism effectively.
	Achieving Personal Work Goals and Objectives	• Accepting and tackling demanding goals. • Working longer hours when necessary. • Identifying opportunities for progressing to more challenging roles.
	Entrepreneurial and Commercial Thinking	• Keeping up to date with competitor information and market trends. • Identifying business opportunities. • Demonstrating financial awareness.

Appendix C – OPQ32i factors

OPQ32i domains and factors

Relationships with People

Persuasive (RP1)

This scale concerns how much people enjoy selling, negotiating and winning others over to their points of view.

Controlling (R2)

This scale concerns how much people like taking charge of others, managing, directing and telling people what to do.

Outspoken (R3)

This scale is concerned with how freely people express their opinions, disagree with and criticise others.

Independent Minded (R4)

This scale is concerned with how prepared people are to follow their own approach and disregard majority decisions.

Outgoing (R5)

This scale concerns how lively and animated people are in groups, how talkative they are and how much they enjoy attention.

Affiliative (R6)

This scale concerns how much people need the company of others and how inclined they are to want close ties and friendships.

Socially Confident (R7)

This scale concerns how comfortable people feel in the company of others, particularly strangers, and how at ease they feel in formal situations.

Modest (R8)

This scale concerns the extent to which one is reserved about personal achievements and inclined not to talk about oneself.

Democratic (R9)

This scale concerns how consultative people are and how much they favour participation in discussions and decision making.

Caring (R10)

This scale concerns how prepared people are to listen to others' problems, how sympathetic and considerate they are towards others, how helpful and supportive they are.

Thinking Styles

Data Rational (TS1)

This scale concerns how much people enjoy working with numbers and facts, enjoy analysing statistical information and make decisions based on facts and figures.

Evaluative (T2)

This scale concerns how critically people evaluate information, look for potential limitations, and focus on errors.

Behavioural (T3)

This scale concerns how much people try to understand motives and behaviour, and enjoy analysing people.

Conventional (T4)

This scale is concerned with how much people prefer well-established methods and favour a more conventional approach.

Conceptual (T5)

This scale describes how interested people are in theories and how much they enjoy discussing abstract concepts.

Innovative (T6)

This scale concerns how much people feel that they generate new ideas and original solutions to problems and enjoy being creative.

Variety Seeking (T7)

This scale is concerned with how much a person prefers variety, tries out new things, likes changes in regular routine, and can become bored with repetitive work.

Adaptable (T8)

This scale is concerned with how much a person changes his/her behaviour to suit a situation and adapts his/her approach to different people.

Forward Thinking (T9)

This scale is concerned with whether a person takes a long-term view, sets goals for the future, and is more likely to take a strategic perspective.

Detail Conscious (T10)

This scale is concerned with how much a person focuses on detail, likes to be methodical, organised, and systematic, and becomes occupied with detail.

Conscientious (T11)

This scale is concerned with how much a person focuses on getting things finished and persists until the job is done.

Rule Following (T12)

This scale is concerned with how much a person follows rules and regulations, prefers clear guidelines, and finds it difficult to break rules.

Feelings and Emotions

Relaxed (FE1)

This scale concerns itself with how easy a person finds it to relax and to what extend he/she is calm and untroubled.

Worrying (F2)

This scale concerns itself with the extent to which a person feels nervous before important occasions and worries about things going wrong.

Tough Minded (F3)

This scale concerns itself with the extent to which a person can ignore insults and is insensitive to personal criticism.

Optimistic (F4)

This scale concerns itself with the extent to which a person expects things to turn out well, looks to the positive aspects of a situation, and has an optimistic view of the future.

Trusting (F5)

This scale concerns itself with the extent to which a person trusts people, sees others as reliable and honest, and believes what others say.

Emotionally Controlled (F6)

This scale concerns itself with the extent to which a person can conceal feelings from others and rarely displays emotions.

Vigorous (F7)

This scale concerns itself with how much a person thrives on activity, likes to be busy, and enjoys having a lot to do.

Competitive (F8)

This scale concerns itself with a person's need to win, how much he/she enjoys competitive activities and dislikes losing.

Achieving (F9)

This scale concerns itself with the extent to which a person is ambitious and career-centred and likes to work to achieve demanding goals and targets.

Decisive (F10)

This scale is concerned with the extent to which a person makes fast decisions, reaches conclusions quickly and is less cautious.

Social Desirability (SDE)

This scale measures whether a person was concerned with making a good impression in completing the personality questionnaire.

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