



CHAPTER 7

Research findings

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CHAPTER 7 RESEARCH FINDINGS

*“Even the deepest turnaround talents are helpless if their skills are too limited”
“Knowledge of financial statements, crisis management, business strategy and many other
subjects are vital to achieve success”*

*“Though strong theoretical knowledge is valuable, understanding the
entrepreneur’s life is an absolute necessity”*

Pennanen (2010:7)

7.1 INTRODUCTION

Verifiers are used to confirm the existence of problems in the business or in the business environment, as environmental scanning units seem to be unable to respond to what Ansoff (1975:25) calls “weak signals”. Stubbart (1982:143) concludes “we have too many places to look and too few theories of how significant environmental change can be linked to the business’s plans”. The introduction of verifier determinants is intended to fill the “gap” in this regard and to focus the investigative stage of a turnaround situation.

The previous chapters shaped the foundation for an academic framework. In order to achieve the research objective of identifying verifier determinants, different opinions from a business, an accounting and a legal platform were presented. These opinions are given within a framework of early warning sign identification and turnaround practice. In the discussion with a selected specialist group, it became clear that some of the opinions are similar, but with varying denotations and terminology. Instances where the outlook on approaches is the same were grouped.

Sections of the research findings are supplied in the various appendixes attached to this document. These contain extensive lists and categories of construct elements relevant to this study.

This chapter emphasises the empirical findings. In addition, the use of statistical analysis is explained against a backdrop of demographic information and more descriptive inferences.

The following descriptive statistics are presented in this chapter:

- exploratory factor analysis for identification of factors
- ANOVA tables – illustrate the relationships between the factors and the independent variables
- the Wilcoxon two-sample test
- the Kruskal-Wallis test.

7.1.1 CASE RESEARCH RESULTS

Through the interview process, five main categories of early warning signs were identified, namely:

- management warning signs
- financial warning signs
- operational/market warning signs
- strategic warning signs
- banking warning signs.

After all interviews had been conducted, the participants were asked to rank the above categories of warning sign in order of importance. Participants agreed that managerial warning signs were the most important, but also the most difficult to identify and verify.

On a scale of 1 to 5 (5 being most important and 1 being least important), participants ranked the categories as follows:

- (5) management signs
- (4) strategic signs
- (3) financial signs

- (2) operational/market signs
- (1) banking signs

The specialist respondents could:

- identify early warning signs
- correctly identify and categorise Basel II
- correctly rank the cases
- identify causes quite accurately
- give a verifier determinant for each cause identified

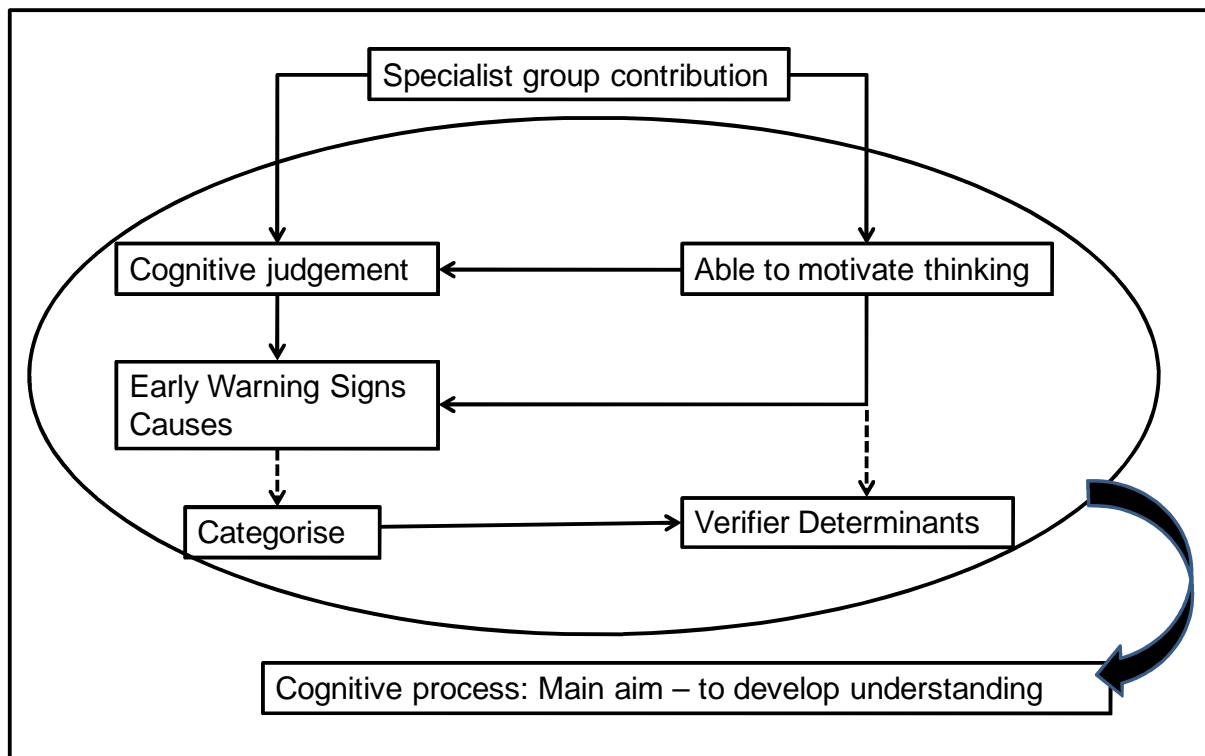


Figure 7.1 Specialist group cognitive process (own compilation)

The participants identified several verifier determinants related to each category. These showed a classic resemblance to the warning signs identified in the literature reviewed. The participants were also able to identify the same elements that are used in the Basel II findings, which demonstrates the participants' high level of knowledge. Moreover, the participants had no trouble in accurately placing the case studies in low, medium, or high-risk categories.

This comparison validates the interview findings. Tables 7.10 to 7.14 contain the variables identified by the specialists and were included in the questionnaire in order to be evaluated by the respondents.

7.2 EMPIRICAL FINDINGS: DESCRIPTIVE STATISTICS

This section details the results of the field research. The sample is described below in terms of the demographic information depicted in figures 7.1 to 7.5.

7.2.1 SAMPLE AND RESPONSE RATE

Questionnaires were distributed to 200 employees in the credit and the credit risk environment. Of these respondents, 92 (i.e. 46%) returned a completed questionnaire, giving a response rate of 46%, which was taken to be representative of the population and was used in the statistical analysis described in this chapter.

7.2.2 DEMOGRAPHICS

The demographic results are presented below. Respondents were classified into two groups namely 'incumbent' and 'expert'. The incumbent group consists of credit managers, senior credit managers, area credit managers, regional credit managers, credit risk managers, senior credit risk managers and regional managers of credit risk. The expert group consisted of industry experts with vast experience of distressed business restructuring and credit lending. The majority of the respondents 83 (i.e. 90.2%) came from the incumbent group – see section 6.6.3. and table 7.1.

Table 7.1 Factor importance ratings and rankings in relation to expertise classification

The MEANS Procedure: Two distinct groups: incumbents and experts						
Groups	N Obs	Variable	N	Mean	Std Dev	Ranking
Incumbents	83	Managerial Verifier Determinants	83	3.349	0.393	2
		Financial Verifier Determinants	83	3.552	0.317	4
		Strategic Verifier Determinants	83	3.310	0.476	1
		Operational/Market Determinants	83	3.460	0.437	3
		Banking Verifier Determinants	83	3.659	0.352	5
Experts	9	Managerial Verifier Determinants	9	3.306	0.423	3
		Financial Verifier Determinants	9	3.454	0.177	4
		Strategic Verifier Determinants	9	3.133	0.224	1
		Operational/Market Determinants	9	3.233	0.427	2
		Banking Verifier Determinants	9	3.741	0.188	5

A question was posed to both the incumbent and expert groups, dividing the respondents into three subsets, namely, junior, middle and senior management.

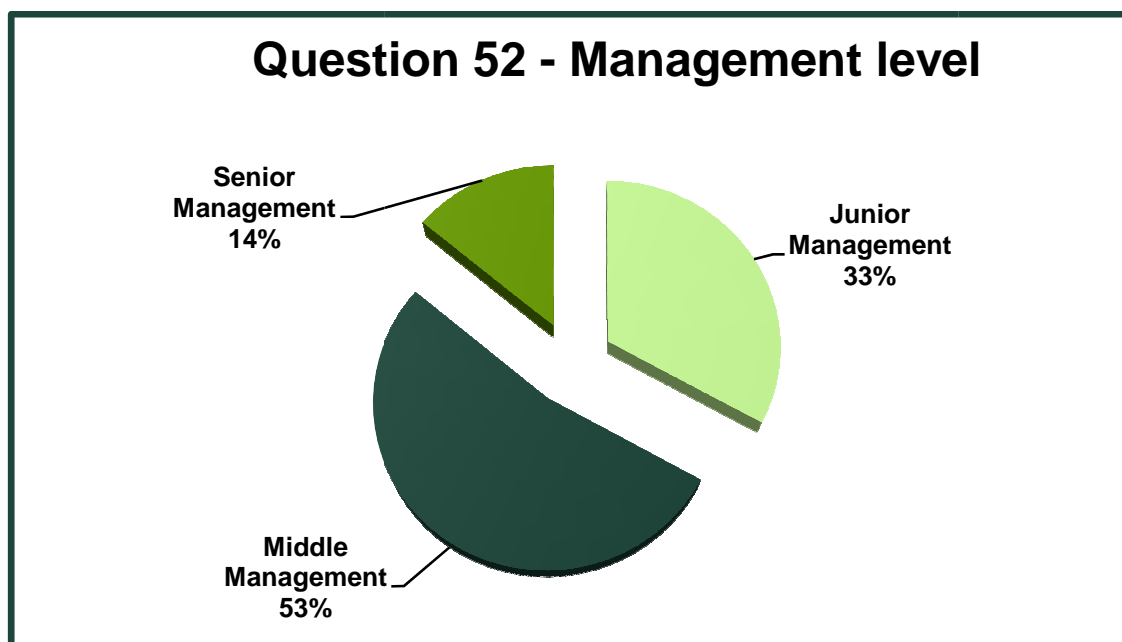


Figure 7.1 Levels of management

Refer to table 7.2

Table 7.2 Factor importance ratings and rankings in relation to management classification levels of management

The MEANS Procedure: Question - I am senior / middle/ junior management						
v53	N Obs	Variable	N	Mean	Std Dev	Ranking
Junior	28	Managerial Verifier Determinants	28	3.372	0.355	2
		Financial Verifier Determinants	28	3.610	0.286	4
		Strategic Verifier Determinants	28	3.329	0.477	1
		Operational/Market Determinants	28	3.557	0.373	3
		Banking Verifier Determinants	28	3.685	0.355	5
Middle	51	Managerial Verifier Determinants	51	3.345	0.423	2
		Financial Verifier Determinants	51	3.525	0.323	4
		Strategic Verifier Determinants	51	3.261	0.494	1
		Operational/Market Determinants	51	3.406	0.463	3
		Banking Verifier Determinants	51	3.676	0.324	5
Senior	13	Managerial Verifier Determinants	13	3.288	0.377	1
		Financial Verifier Determinants	13	3.468	0.273	4
		Strategic Verifier Determinants	13	3.338	0.260	3
		Operational/Market Determinants	13	3.308	0.446	2
		Banking Verifier Determinants	13	3.590	0.383	5

Ranking: 5 = high importance, 1 = low importance

Middle management contributed 53% of all respondents. This is to be expected since the lending environment requires a certain level of expertise and middle managers contribute significantly in terms of their knowledge and experience (refer to figure 7.2), which was beneficial to this research. There was a definite difference in the rankings in terms of management levels. Strategic verifier determinants were ranked higher by senior management, while banking and financial verifier determinants were more important to junior and middle management.

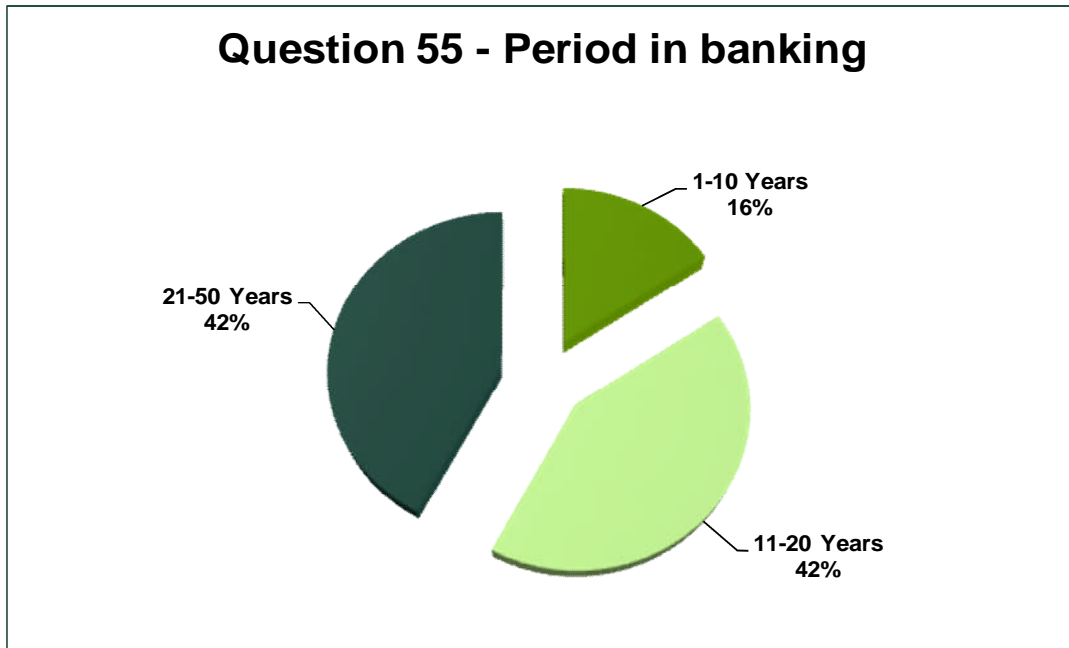


Figure 7.2 Service period in banking

A respondent with a high level of expertise is expected to have been substantially exposed to the banking environment in which he/she operates. Hence, a high level of expertise requires a certain number of years' experience. The respondents to this question depict this requirement, as the majority (84%) has more than 10 years' banking experience. This does, however, need to be tested against the number of years the respondents have been in their current positions.

The factor importance ratings and rankings in relation to classification of length of service in banking, is illustrated in table 7.3 and depicted in figure 7.3.

Table 7.3 Factor importance ratings and rankings in relation to classification of length of service in banking

The MEANS Procedure: Question- How long have you been in banking in years?						
vv56	N Obs	Variable	N	Mean	Std Dev	Ranking
1-15	32	Managerial Verifier Determinants	32	3.263	0.443	2
		Financial Verifier Determinants	32	3.508	0.310	4
		Strategic Verifier Determinants	32	3.147	0.485	1
		Operational/Market Determinants	32	3.369	0.496	3
		Banking Verifier Determinants	32	3.516	0.365	5
16-25	39	Managerial Verifier Determinants	39	3.408	0.336	2
		Financial Verifier Determinants	39	3.562	0.335	4
		Strategic Verifier Determinants	39	3.359	0.483	1
		Operational/Market Determinants	39	3.421	0.448	3
		Banking Verifier Determinants	39	3.756	0.308	5
26+	21	Managerial Verifier Determinants	21	3.353	0.411	1
		Financial Verifier Determinants	21	3.560	0.249	3
		Strategic Verifier Determinants	21	3.390	0.321	2
		Operational/Market Determinants	21	3.576	0.290	4
		Banking Verifier Determinants	21	3.730	0.286	5

Ranking: 5 = high importance, 1 = low importance

There was a definite difference in the rankings in terms of management levels: operational/market and strategic verifier determinants were ranked higher by those who had been members of management longer, while banking and financial verifiers determinants were important to all three categories of manager.

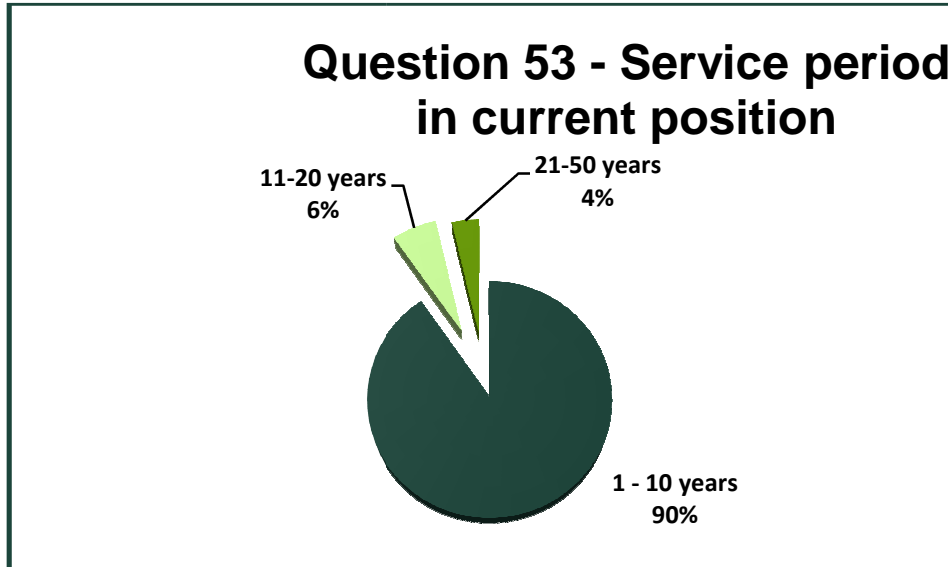


Figure 7.3 Service period in current position

Of all the respondents, 66% had been in their current position for less than five years, although they had sufficient experience when taking the number of years in banking into account. However, their experience in their current positions could be lacking due to the relative short exposure to the job function, refer to figure 7.4..

Table 7.4 Factor importance ratings and rankings in relation to classification of service period in current position

The MEANS Procedure: Question - How long have you been in this position in years?						
vv54	N Obs	Variable	N	Mean	Std Dev	Ranking
0-5	61	Managerial Verifier Determinants	61	3.381	0.422	2
		Financial Verifier Determinants	61	3.563	0.320	4
		Strategic Verifier Determinants	61	3.328	0.478	1
		Operational/Market Determinants	61	3.446	0.457	3
		Banking Verifier Determinants	61	3.678	0.330	5
6-45	31	Managerial Verifier Determinants	31	3.274	0.327	2
		Financial Verifier Determinants	31	3.503	0.279	4
		Strategic Verifier Determinants	31	3.223	0.420	1
		Operational/Market Determinants	31	3.423	0.407	3
		Banking Verifier Determinants	31	3.645	0.362	5

Other demographic information includes respondent's age and education level. All respondents were older than 25 years, which makes sense since a certain level of expertise was required for inclusion. The majority of the respondents have a post-matric qualification, which is in line with the job requirement and the responsibility requirement.

Table 7.5 Comparison between education level and management level of respondents

Education Qualification	Management Level			Total
	Junior	Middle	Senior	
Matric	12	2	1	15
Diploma	4	15	3	22
Degree	8	16	6	30
Post Degree	3	11	2	16
Total	27	44	12	83

Respondents having only a matric fall mainly into the junior management category, which is to be expected. The category, middle management, contained the majority of respondents with post-matric qualifications.

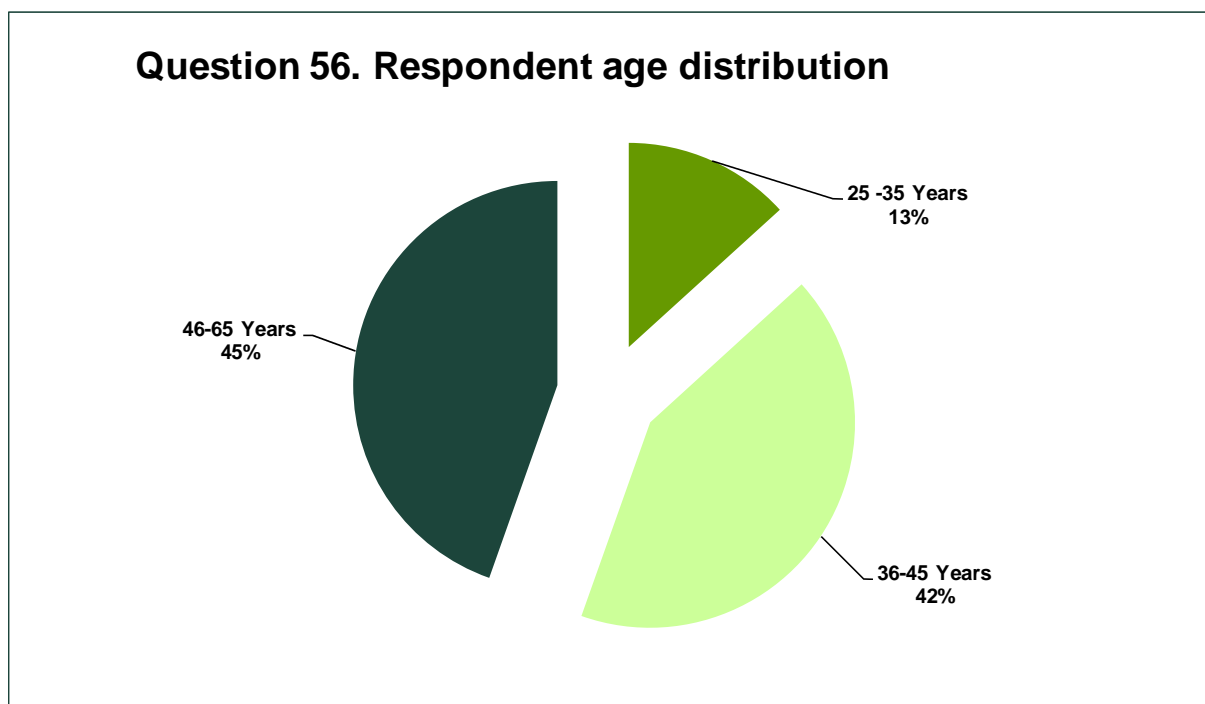


Figure 7.4 Respondent age distribution

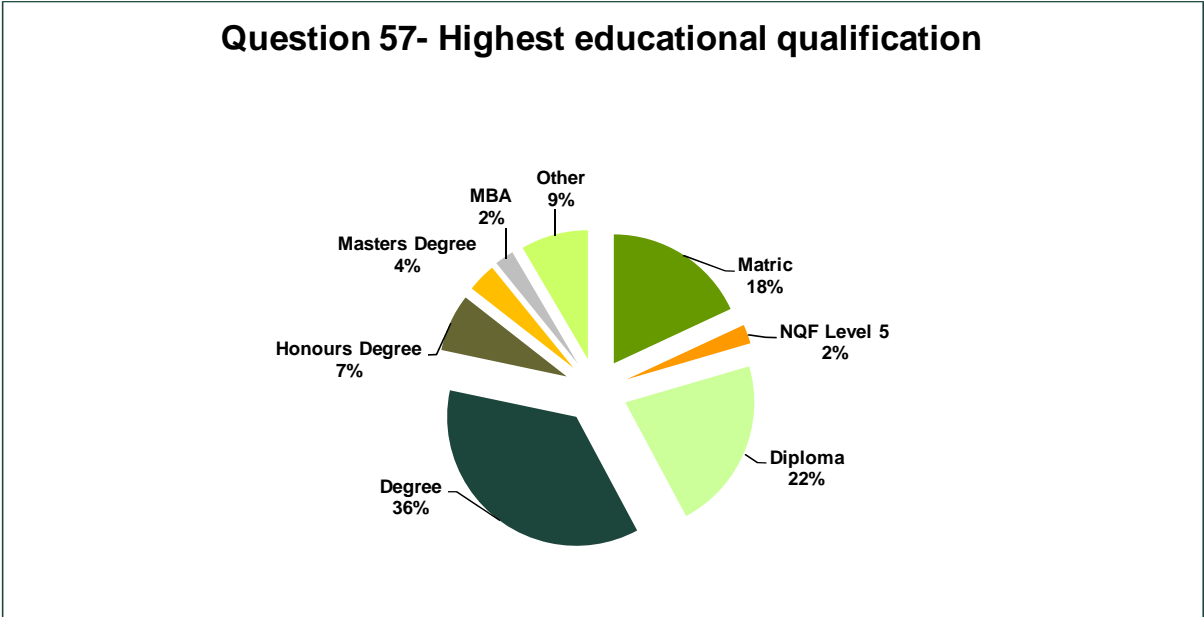


Figure 7.5 Highest educational qualification

The significance of higher education is illustrated by the very low percentage of 18% of respondents with a Grade 12 only as their highest qualification. The spread also confirms the environment’s requirement for post-matric qualifications. Of significance here is the number of respondents (49%) with graduate and postgraduate qualifications.

7.2.3 FACTOR ANALYSIS

Questions 1 to 50 are the verifier determinants identified from the interview process. These questions were grouped according to the constructs of early warning signs. The constructs identified in the interview process and confirmed by the secondary data research are reflected as the five factors (f1 to f5) shown in the table 7.6.

Table 7.6 Description of factors

Factor analysis		
Factor no	Questions	Definitions
f1	v2-v13	Managerial Verifier Determinants
f2	v14-v25	Financial Verifier Determinants
f3	v26-v35	Strategic Verifier Determinants
f4	v36-v45	Operational/Market Verifier Determinants
f5	v46-v51	Banking Verifier Determinants

Table 7.7 Univariate statistics for factor analysis

Information	(Factor 1)	(Factor 2)	(Factor 3)	(Factor 4)	(Factor 5)
Number of items	12	12	10	10	5
Mean	3.345	3.543	3.292	3.438	3.667
Median	3.417	3.500	3.300	3.500	3.667
Mode	3.417	3.500	3.100	3.500	4.000
Standard Deviation	0.394	0.307	0.460	0.439	0.340
Variance	0.155	0.094	0.211	0.192	0.115
Specilist group ranking %= most-, 1 = least important	5	3	4	2	1
Cronbach's Alpha coefficient: Raw	0.791	0.747	0.891	0.874	0.691
Cronbach's Alpha coefficient: Standardised	0.783	0.744	0.891	0.875	0.697
n=92					

Table 7.8 Ranking comparison of factors

	Specialist	Expert	Incumbent	Junior	Middle	Senior
f1	Managerial Verifier Determinants	High				
f2	Financial Verifier Determinants		High	High	High	High
f3	Strategic Verifier Determinants			Low	Low	Low
f4	Operational/Market Determinants		Low			Low
f5	Banking Verifier Determinants	Low				
	Specialist	Expert	Incumbent	Banking 1-15	Banking 16-25	Banking26+
f1	Managerial Verifier Determinants	High				Low
f2	Financial Verifier Determinants		High	High	High	High
f3	Strategic Verifier Determinants			Low	Low	
f4	Operational/Market Determinants		Low		Low	
f5	Banking Verifier Determinants	Low			High	
	Specialist	Expert	Incumbent	Period < 5	Period > 5	
f1	Managerial Verifier Determinants	High				
f2	Financial Verifier Determinants		High	High	High	High
f3	Strategic Verifier Determinants			Low	Low	Low
f4	Operational/Market Determinants		Low			
f5	Banking Verifier Determinants	Low				

The financial verifier determinants were favoured by most of the respondents as being of high importance. This was to be expected as the research was conducted in a financial institution. Furthermore, financial verifier determinants are largely measurable. For the same reason, strategic verifier determinants were rated as being of low importance by all respondents except for senior management. It can thus be deduced that the more senior managers rely on experience in order to “measure” the levels of strategic and managerial verifier determinants.

All five factors are highly correlated with each other as can be seen from the correlations in table 7.9. The hypothesis that the factors are not correlated, is rejected.

Table 7.9 Factor correlations

Pearson Correlation Coefficients, N=92 Prob >[r] under HO: Rho=0	f1	f2	f3	f4	f5
Managerial Verifier Determinants	1.000				
Financial Verifier Determinants	0.618 p<0,0001	1.000			
Strategic Verifier Determinants	0.719 p<0.0001	0.720 0.0001	1.000		
Operational/Market Determinants	0.535 p<0.0001	0.700 0.0001	0.731 0.0001	1.000	
Banking Verifier Determinants	0.512 p<0.0001	0.581 0.0001	0.557 0.0001	0.488 0.0001	1.000

The verifier variables which are included in each of the factor determinants discussed are reflected in table 7.10. These determinants were arrived at from the interview process with the specialist group. The interview process was successful in eliciting statements from the specialist group in which the specific variables were highlighted

Table 7.10 Variables in the managerial verifier factor

Question number	<i>When you visit a business where there is suspicion of potential decline, how important will the following be to verify decline</i>	Mean	Ranking
2	No or limited management information system in operation	3.772	11
3	Managers education does not compliment business	3.011	2
4	Entrepreneur is “scapegoating” (blaming)	3.185	4
5	Inflexibility when making decisions regarding change	3.315	5
6	Entrepreneur absent from work and important meetings	3.717	9
7	Impulsive decision making	3.435	6
8	Not able to recall management info immediately (ask others)	3.315	5
9	Absence of up to date management accounts	3.761	10
10	Important decision made on golf course	2.500	1
11	Manager’s personal problems, health or marriage, overshadow business focus	3.446	7
12	Super cars and "toys"	3.152	3
13	Business has outgrown managers/ owners/ directors skills set	3.533	8
Ranking: 11 = high importance, 1 = low importance			

The 12 managerial variables identified by the specialist group are listed in table 7.10; this reflects the statements in the questionnaire from question 2 to 13.

These statements give the consolidated view of statements made by the specialist group on business management during the interview. A Cronbach's alpha of 0,783 suggests high reliability.

Example: when visiting a business and during consultation with management and management is unable to recall management information immediately and have to rely on others to submit such information, it is clear that management is lacking in the business.

Table 7.11 Variables in the financial verifier factor

Question number	<i>When you visit a business where there is suspicion of potential decline, how important will the following be to verify decline</i>	Mean	Ranking
14	Labour cost excessive for business type	3.565	5
15	Absence of or unrealistic cash flow projections	3.630	7
16	A high risk project or one big project dependence.	3.685	9
17	Late submission of financials in an attempt to postpone unfavourable news	3.859	10
18	Sensitivity on tax avoidance	3.685	9
19	Not analysing internal financial information	3.652	8
20	Underutilisation of assets	3.109	1
21	Creative accounting	3.609	6
22	Pricing and discounts for cash generation	3.207	2
23	Slowing down and stretching payments to suppliers in an attempt to generate	3.478	4
24	High executive remuneration	3.402	3
25	Dividend payouts unstructured and considered too high	3.630	7
Ranking: 10 = high importance, 1 = low importance			

The 12 financial variables identified by the specialist group are listed in table 7.11. This table reflects the statements in the questionnaire from questions 14 to 25. These statements were identified by specialists and evaluated by respondents (experts and incumbents). A Cronbach's alpha of 0,744 suggests high reliability.

Example: when visiting a business and during consultation with management, management is over-sensitive on tax elusion and embark on creative accounting, it is therefore clear that management is on an collusion course and the integrity of financial information is suspect.

The 10 strategic variables identified by the specialist group are listed table 7.12. This table reflects the statements in the questionnaire from questions 26 to 35. A Cronbach's alpha of 0,891 suggests high reliability.

Table 7.12 Variables in the strategic verifier factor

Question number	<i>When you visit a business where there is suspicion of potential decline, how important will the following be to verify decline</i>	Mean	Ranking
26	Forced growth through mergers and acquisitions	3.000	2
27	Overambitious growth strategy	3.337	6
28	Not willing to deviate from strategic plan	3.076	3
29	Non responsive to small inefficiencies	2.717	1
30	Unclear strategy for product and market	3.500	8
31	Inability to adapt to business life cycles	3.457	7
32	Difficult fit between strategic posture, organization structure and industry life	3.207	4
33	Overexpansion of capacity without considering market	3.652	9
34	Lack of strategies to combat decline	3.674	10
35	Lack of fusion between strategic issues and everyday operations	3.304	5
Ranking: 10 = high importance, 1 = low importance			

Example: Management are unable to except or adapt to change, but concentrate on growth without having business and/or strategic plans in place. These variables clearly indicate a weak strategic position.

The 10 operational/market variables identified by the specialist group are listed in table 7.13, which reflects the statements in the questionnaire from question 2 to 13. These statements are the consolidated view of statements on operational and market variables made during the interview with the specialist group. A Cronbach's alpha of 0,785 suggests high reliability (see table 7.7).

Table 7.13 Variables in the operational/market verifier factor

Question number	<i>When you visit a business where there is suspicion of potential decline, how important will the following be to verify decline</i>	Mean	Ranking
36	Inappropriate channels of distribution.	3.402	7
37	Aging production techniques	3.250	9
38	Not knowing about new technology in his industry	3.435	6
39	Misinterpretation of competitive advantage	3.391	8
40	Declining emphasis on advertising	2.772	10
41	Poor service or products	3.739	2
42	Reliance on one customer	3.783	1
43	Failure to respond to high cost in comparison with competitors	3.565	3
44	Market forces ignored in planning	3.500	5
45	Core markets moving away from location	3.543	4
Ranking: 10 = high importance, 1 = low importance			

Example: Investigation of operational issues, such as distribution channels, will soon lead to the identification and confirmation of inefficiencies in the management of “proof of deliveries” and correctness and validation of debtor statements.

The six banking variables identified by the specialist group are listed in table 7.14. This table reflects the statements in the questionnaire from questions 46 to 51. These statements are the consolidated view of statements on banking variables made during the interview with the specialist group. A Cronbach’s alpha of 0,697 suggests high reliability.

Table 7.14 Variables in the banking verifier factor

Question number	<i>When you visit a business where there is suspicion of potential decline, how important will the following be to verify decline</i>	Mean	Ranking
46	Regular stop payments on creditor obligations	3.772	4
47	Increase in short term requests for cash flow purposes	3.793	5
48	Declining deposit balances, and/or returned cheques.	3.880	6
49	Rounded amounts paid to creditors	3.620	3
50	Overdraft advance funds other purposes, such as asset acquisition.	3.500	2
51	Funding structure does not complement business model	3.435	1
Ranking: 6 = high importance, 1 = low importance			

Example: When visiting a business and during consultation with management, management is unable to recall management information immediately and have to rely on others to submit such information; it is therefore clear that there is a lack of management in the business.

7.3 EMPIRICAL FINDINGS: INFERENCE STATISTICS

This section gives details of tests of differences and variance analysis performed on the data used in the empirical study.

7.3.1 MULTI-WAY ANALYSIS OF VARIANCE (ANOVA)

In order to establish whether relationships exist between the factors and the independent variables, a multi-way analysis of variance was conducted.

The ANOVA tables presented in tables 7.15 to 7.19 below are based on the data obtained from the 91 completed questionnaires. Factors have been transformed to comply to the requirements of equal variances and normality of the residuals.

Table 7.15 ANOVA for Factor 1: managerial verifier determinants

The GLM Procedure					
Dependent Variable: managerial verifier determinant					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	4.423	0.737	0.740	0.618
Error	85	84.492	0.994		
Corrected Total	91	88.914			
R-Square	Coeff Var	Root MSE	cf1 Mean		
0.050	1.967	0.997	0.000		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Group	1	0.165	0.165	0.170	0.685
How long have you been in this position in years?	1	1.576	1.576	1.590	0.211
How long have you been in banking in years?	2	2.350	1.175	1.180	0.312
I am senior / middle/ junior management.	2	0.220	0.110	0.110	0.895

Table 7.15 shows that the managerial verifier determinants are not significantly influenced by any of the independent variables on a 5% level of significance ($p < 0,05$).

Table 7.16 ANOVA for Factor 2: financial verifier determinants

The GLM Procedure					
Dependent Variable: financial verifier determinant					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	4.410	0.735	0.740	0.619
Error	85	84.505	0.994		
Corrected Total	91	88.914			
R-Square	Coeff Var	Root MSE	cf2 Mean		
0.050	-1.712	0.997	0.000		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Group	1	0.826	0.826	0.830	0.365
How long have you been in this position in years?	1	0.413	0.413	0.420	0.521
How long have you been in banking in years?	2	1.263	0.632	0.640	0.532
I am senior / middle/ junior management.	2	1.883	0.941	0.950	0.392

Table 7.16 shows that the financial verifier determinants are not significantly influenced by any of the independent variables on a 5% level of significance ($p < 0,05$).

Table 7.17 ANOVA for Factor 3: strategic verifier determinants

The GLM Procedure					
Dependent Variable: strategic verifier determinant					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	9.781	1.630	1.750	0.119
Error	85	79.133	0.931		
Corrected Total	91	88.914			
R-Square	Coeff Var	Root MSE	cf3 Mean		
0.110	1.428	0.965	0.000		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Group	1	1.336	1.336	1.440	0.234
How long have you been in this position in years?	1	1.593	1.593	1.710	0.194
How long have you been in banking in years?	2	5.918	2.959	3.180	0.047
I am senior / middle/ junior management.	2	1.179	0.590	0.630	0.533

Table 7.17 shows that the strategic verifier determinants are significantly influenced by the number of years in banking ($p < 0,05$). These verifier determinants are not significantly influenced by any of the other independent variables on a 5% level of significance ($p < 0,05$).

Table 7.18 ANOVA for Factor 4: operational/marketing verifier determinants

The GLM Procedure					
Dependent Variable: operational/market verifier determinant					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	8.268	1.378	1.450	0.205
Error	85	80.646	0.949		
Corrected Total	91	88.914			
R-Square	Coeff Var	Root MSE	cf4 Mean		
0.093	3.153	0.974	0.000		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Group	1	1.280	1.280	1.350	0.249
How long have you been in this position in years?	1	0.111	0.111	0.120	0.734
How long have you been in banking in years?	2	4.418	2.209	2.330	0.104
I am senior / middle/ junior management.	2	3.290	1.645	1.730	0.183

Table 7.18 shows that the operational/marketing verifier determinants are not significantly influenced by any of the independent variables on a 5% level of significance ($p < 0,05$)

Table 7.19 ANOVA for Factor 5: banking verifier determinants

The GLM Procedure					
Dependent Variable: banking verifier determinant					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	9.834	1.639	1.760	0.117
Error	85	79.080	0.930		
Corrected Total	91	88.914			
R-Square	Coeff Var	Root MSE	cf5 Mean		
0.111	-1.817	0.965	0.000		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Group	1	0.339	0.339	0.360	0.548
How long have you been in this position in years?	1	0.141	0.141	0.150	0.698
How long have you been in banking in years?	2	8.594	4.297	4.620	0.013
I am senior / middle/ junior management.	2	1.832	0.916	0.980	0.378

Table 7.19 shows that the banking verifier determinants are significantly influenced by the number of years in banking ($p < 0,05$). These verifier determinants are not significantly influenced by any of the other independent variables on a 5% level of significance ($p < 0,05$).

7.3.2 WILCOXON TWO-SAMPLE TEST AND KRUSKAL-WALLIS TEST

To test whether the factors are influenced significantly by the independent variable 'group', the Wilcoxon two-sample test and Kruskal-Wallis test are used. Owing to the small sample size (21), a t-approximation is shown in the Wilcoxon two-sample tests, and the Kruskal-Wallis tests were conducted to confirm the results from the Wilcoxon two-sample tests.

Table 7.20 Means procedure for the incumbent and expert groups

The Means Procedure						
N			N	Mean	Std Dev	Ranking
Group	Obs	Variable				
Incumbent	12	Managerial Verifier Determinants	12	3.424	0.377	2
		Financial Verifier Determinants	12	3.604	0.293	5
		Strategic Verifier Determinants	12	3.350	0.481	1
		Operational/Market Determinants	12	3.483	0.501	3
		Banking Verifier Determinants	12	3.583	0.399	4
Ranking: 5 = high importance 1= low importance						
Expert	9	Managerial Verifier Determinants	9	3.306	0.423	3
		Financial Verifier Determinants	9	3.454	0.177	4
		Strategic Verifier Determinants	9	3.133	0.224	1
		Operational/Market Determinants	9	3.233	0.427	2
		Banking Verifier Determinants	9	3.741	0.188	5

In table 7.20, the Kruskal-Wallis test yields a p-value of 0,642. This indicates that the managerial verifier determinants are not significantly influenced by the incumbent and expert group on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

Table 7.21 Testing managerial verifier determinants for influence between the incumbent and expert groups

The NPAR1WAY Procedure					
Wilcoxon Scores (Rank Sums) for Variable: Managerial Verifier Determinant					
Group	N	Sum of Scores	Expected Under HO	Std Dev Under HO	Mean Score
Incumbent	12	138.500	132.000	13.975	11.542
Expert	9	92.500	99.000	13.975	10.278
Average scores were used for ties					
Wilcoxon Two-Sample Test					
Statistic				92.5	
Normal Approximation					
Z				-0.429	
One-sided Prize				0.334	
Two Sided Pr. Z				0.668	
t Approximation					
One-Sided Pr . Z				0.336	
Two-Sided Pr. Z				0.672	
Z includes a continuity correction of 0.5					
Kruskal-Wallis Test					
Chi-Square			0.216		
DF			1		
Pr.Chi-Square			0.642		

Table 7.21 shows that the Kruskal-Wallis test yields a p-value of 0,642. This indicates that the financial verifier determinants are not significantly influenced by the incumbent or expert groups on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

Table 7.22 Testing financial verifier determinants for influence between the incumbent and expert groups

The NPAR1WAY Procedure					
Wilcoxon Scores (Rank Sums) for Variable: Financial Verifier Determinant Classified by Variable Group					
Group	N	Sum of Scores	Expected Under HO	Std Dev Under HO	Mean Score
Incumbent	12	154.000	132.000	13.989	12.833
Expert	9	77.000	99.000	13.989	8.556
Average scores were used for ties					
Wilcoxon Two-Sample Test					
Statistic				77	
Normal Approximation					
Z				-1.537	
One-sided Pr.Z				0.062	
Two Sided Pr. Z				0.124	
t Approximation					
One-Sided Pr . Z				0.070	
Two-Sided Pr. Z				0.140	
Z includes a continuity correction of 0.5					
Kruskal-Wallis Test					
Chi-Square			2.473		
DF			1		
Pr.Chi-Square			0.116		

Table 7.22 shows that the Kruskal-Wallis test yields a p-value of 0,116. This indicates that the financial verifier determinants are not significantly influenced by the incumbent or the expert groups on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

Table 7.23 Testing strategic verifier determinants for influence between the incumbent and expert groups

The NPAR1WAY Procedure					
Wilcoxon Scores (Rank Sums) for Variable: Strategic Verifier Determinant Classified by Variable Group					
Group	N	Sum of Scores	Expected Under HO	Std Dev Under HO	Mean Score
Incumbent	12	145.000	132.000	13.966	12.083
Expert	9	86.000	99.000	13.966	9.556
Average scores were used for ties					
Wilcoxon Two-Sample Test					
Statistic				86.000	
Normal Approximation					
Z				-0.895	
One-sided Pr.Z				0.185	
Two Sided Pr. Z				0.371	
t Approximation					
One-Sided Pr . Z				0.191	
Two-Sided Pr. Z				0.381	
Z includes a continuity correction of 0.5					
Kruskal-Wallis Test					
Chi-Square			0.867		
DF			1		
Pr.Chi-Square			0.352		

Table 7.23 indicates that the Kruskal-Wallis test yields a p-value of 0,352. This indicates that the strategic verifier determinants are not significantly influenced by the incumbent or the expert groups on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

Table 7.24 Testing operational/market verifier determinants for influence between the incumbent and expert groups

The NPAR1WAY Procedure					
Wilcoxon Scores (Rank Sums) for Variable: Operational/Market Verifier Determinant					
Group	N	Sum of Scores	Expected Under HO	Std Dev Under HO	Mean Score
Incumbent	12	150.500	132.000	13.984	12.542
Expert	9	80.500	99.000	13.984	8.944
Average scores were used for ties					
Wilcoxon Two-Sample Test					
Statistic				80.500	
Normal Approximation					
Z				-1.287	
One-sided Pr.Z				0.099	
Two Sided Pr. Z				0.198	
t Approximation					
One-Sided Pr . Z				0.106	
Two-Sided Pr. Z				0.213	
Z includes a continuity correction of 0.5					
Kruskal-Wallis Test					
Chi-Square			1.750		
DF			1		
Pr.Chi-Square			0.186		

Table 7.24 shows that the Kruskal-Wallis test yields a p-value of 0,186. This indicates that the operational/market verifier determinants are not significantly influenced by either the incumbent or the expert groups on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

Table 7.25 Testing banking verifier determinants for influence between the incumbent and expert groups

The NPAR1WAY Procedure					
Wilcoxon Scores (Rank Sums) for Variable: Banking Verifier Determinant Classified by Variable Group					
Group	N	Sum of Scores	Expected Under HO	Std Dev Under HO	Mean Score
Incumbent	12	123.500	132.000	13.748	10.292
Expert	9	107.500	99.000	13.748	11.944
Average scores were used for ties					
Wilcoxon Two-Sample Test					
Statistic				107.500	
Normal Approximation					
Z				0.582	
One-sided Pr.Z				0.280	
Two Sided Pr. Z				0.561	
t Approximation					
One-Sided Pr . Z				0.284	
Two-Sided Pr. Z				0.567	
Z includes a continuity correction of 0.5					
Kruskal-Wallis Test					
Chi-Square			0.382		
DF			1		
Pr.Chi-Sqaure			0.536		

Table 7.25 shows that the Kruskal-Wallis test yields a p-value of 0,536. This indicates that the banking verifier determinants are not significantly influenced by the either the incumbent or the expert group on a 5% level of significance. This confirms the results obtained from the Wilcoxon two-sample tests.

7.4 CHAPTER SUMMARY

In this chapter the results from the empirical study were presented and the five factors that were identified were tested for significance. The inferential statistics were presented using ANOVA tables and tests for any relationship between the factors and the incumbent and expert groups were conducted by making use of the Wilcoxon two-sample test and the Kruskal-Wallis test.

The next chapter explores the findings from the study by drawing conclusions from the research and, consequently, making recommendations and suggestions for future research opportunities. The main focus of the next chapter is, firstly, to discuss the findings and, secondly, to propose a turnaround framework for use by entrepreneurs, bankers and practitioners. The limitations of this study will also be mentioned.