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The role of rolling forecasts in high environmental uncertainty

Hemendra Seechoonparsad

Student number: 28529848

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ABSTRACT

With businesses operating in an environment of uncertainty, questions were raised around the role of rolling forecasts in this environment and how the current financial processes have changed as a result of the uncertainty. There are currently debates regarding the role of budgeting and other planning methods, one of which is rolling forecasts. One school of thought believes that budgets are no longer relevant in current times and should be replaced with newer methods, whereas the second school of thought believes that budgets are still current and relevant. Having experienced a global financial crisis, the current time can be described as one of uncertainty. Banks were one of the industries hardest hit by this crisis. This research investigates whether the financial planning processes in banks has changed to align itself with an environment of uncertainty. It further explores whether banks have adopted rolling forecasts in their planning processes.

Data was collected using expert interviews. The sample included 8 respondents across 3 different banks. The data was then analysed using content analysis. The outcome allowed for visibility into the changes made by banks in their financial planning processes. Insights into the reasons why rolling forecasts were not used was also obtained.

Uncertainty in the environment resulted in banks making changes to their financial planning processes. It also emerged that none of the respondents use rolling forecasts. However some of the respondents use forecasting models which are based on some principles of rolling forecast. This research contributes to the budgeting and planning discipline. It contributes by exploring how the budget process is changing to align itself with the changing environment. It also contributes by providing insights into why rolling forecasts are not adopted.



DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Masters of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any other degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Hemendra Seechoonparsad

Date

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This research has tested me physically, mentally and emotionally. However I have not been through this journey alone. A number of people have shared this journey with me and I would like to express my gratitude to you. Without your help, this research would not be possible.

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GLOSSARY

- Black Monday:** Black Monday refers to Monday, October 19, 1987, when stock markets around the world crashed, shedding a huge value in a very short time.
- Bottom-up Budget:** Bottom-up budgets are produced by the cost/profit centre at the detailed account level. On submission of the budget to a consolidated level, all the profit/cost centre budgets are aggregated.
- CFO:** Stands for Chief Financial Officer. A CFO is a senior executive in the financial discipline who is responsible for financial control and planning of a firm.
- CIMA:** Stands for Chartered Institute of Management Accountants. A professional body who provides education to management accountants.
- Cost Centre:** Either a department, division, or unit of a firm who does not generate profit. The managers are responsible for managing the costs incurred.
- EXCO:** Stands for Executive committee. Group of directors appointed to act on behalf of the board of directors.
- ICAEW:** Stands for The Institute of Chartered Accountants in England and Wales. ICAEW is provide education in the accounting field.
- Top-down Budget:** Top-down budgeting is an overall budgeting process that is based on an overall estimate that is made of the higher level accounts and cost/profit centres. Those estimates of higher-level accounts and cost/profit centres are then used to set limits for the lower level accounts and cost/profit centres.
- Profit centre:** Either a department, division or unit of a firm which is responsible for generating profit. They also incur costs which they are responsible for controlling.

1. Chapter 1 - Introduction to Research Problem

The 14 March 2008 was a defining day in the global financial crisis of 2008/2009. On this day it was public knowledge that Bear Sterns, the fifth largest investment bank in the United States of America and one of the world's largest financial institutions had gone bankrupt (Beams, 2008). Bear Sterns was acquired by JP Morgan with the assistance of the US Federal Reserve Board. Bear Sterns was not the only bank to suffer with bankruptcy during this period, but was the start of a larger financial system failure. A number of larger banks faced bankruptcy, including Merrill Lynch, Washington Mutual and Lehman Brothers together with smaller regional banks (O'Connor, 2009). The United States of America had 72 banks collapsing in 2009 with 27 banks collapsing in 2008 and 3 banks in 2007 (O'Connor, 2009). The United States spent \$700 billion bailing out the financial institutions with an additional \$400 billion set aside for the bailing out of Freddie Mac and Fannie Mae (Pro Publica Inc, 2009).

The banking crisis was not only confined to the United States of America, but affected banks in Germany (British Broadcasting Corporation, 2008), the United Kingdom (Beams, 2008) and Iceland (Milner and Brignall, 2008) amongst others. The closure of Lehman Brothers in the United Kingdom was feared to have sent ripple effects through the banking sector. Similar to the US, the UK banks (Lloyds and HSBC) had to bail out the UK mortgage seller HBOS (Mathiason, 2008). The United Kingdom followed a similar trend as the United States of America with the government playing an active role in the bailout of financial institutions. It also saw Lloyds and HSBC acquiring HBOS (Mathiason, 2008). Closer to home, the financial

crisis affected the banking institutions in Nigeria. The Nigerian Central Bank injected \$20 billion into their financial system bailing out 3 banks in October 2009 (Fabi, 2009).

This has also resulted in the change in structure of the industry, especially in the United States. With the collapse of a number of the banks, this allows concentration of the market to within the hands of a few giant banks (O'Connor, 2009). It has also affected the trading market with the UK experiencing the worst trading day since Black Monday with the loss of £90 billion of value of British companies in October 2008 (Mathiason, 2008). This had a ripple effect into other industries and other countries resulting in a rethink of business assumptions.

The global banking system has being unsettled by recent activity resulting in greater focus thereof. Today's businesses are operating in fast-changing economic conditions. Budgeting and planning for businesses in this environment can become very challenging. Budgets become irrelevant as soon as businesses complete a detailed budgeting process due to the changing environmental conditions. Due to the lengthy period involved in creating a budget, considering the cost involved and that it is only valid for a short period of time, businesses are questioning the benefit derived from the budgeting process, especially in uncertain environments.

Apart from the changing economic environment, recent developments in the business environment also affect the budgeting process. These include (Bourne, 2005):

- an increase in global competition
- compliance with new management, reporting and regulatory requirements

- the stakes of getting the budget wrong are getting higher (profit warnings reducing the share price)
- There is a move to quarterly reporting, putting pressure on companies to meet financial results on a quarterly basis and to reforecast more frequently.

Further developments include the structural transformations caused by technology; blurring of industry boundaries resulting in cross-sector competition; and the increase in emphasis of politics (Bracken, 2008). These changes in the environment affect businesses as they have to take cognisance of these changes when budgeting. Ignoring these changes in the environment can result in a disconnect between the budgets and the actual performance.

Critics have questioned the role of budgets in organisations, claiming that budgeting stifles organisational alignment with the external environment. Instead of reacting to market changes as fast as possible in creating a competitive advantage and competing in order to satisfy customer expectations, organisations focus on arriving at a fixed annual performance contract in the form of a budget (Daum, Gunz, Luthi and Morlidge, 2005). This view is supported by Hope and Fraser (2003). This results in an organisation which is inwardly focused.

Lack of alignment between the budgeting and strategic process can lead to confusion at lower levels of management on achievement of strategic objectives (Keogh, 2008; Galeaz and Miller, 2007). The time taken to produce budgets is lengthy and inefficient (Galeaz and Miller, 2007; Hope and Fraser, 2003). The budgeting process introduces a gaming mentality where all involved understand the dynamics of the process and leverage off it for their personal gain (Hope and Fraser, 2003).

Surveys have been conducted internationally to gauge the perception of budgeting. The perception seems to be improving. Out of 260 CFOs surveyed by CFO Magazine (Reason, 2005), 47% stated that most employees were happy with the budgeting and planning process, compared to 16% in a similar study performed in 1998. In 2005, the number of CFOs who believed the value of the budgeting and planning process outweighed the time and effort spent was 65% as compared to 47% in a 1998 survey. This indicates that there is a general improvement of attitude towards budgeting. According to the article driving the change in attitude is a change in process. Companies are moving away from detailed budgets into value driven models which are updated frequently during the year and look beyond the current financial year.

Practitioners (Bourne, 2005; Howell, 2004; Balogh and Logman, 2008; Galeaz and Miller, 2007) have recommended improvements to the annual budgeting process. They include:

- Performance rewards should not be based on achieving the financial budget (Bourne, 2005; Howell, 2004).
- The output of the budgeting process should be reformatted from financial statements to highlight cash instead of accounting income (Howell, 2004).
- The duration of the budgeting process can be reduced by agreeing on targets upfront before the detail is arrived at, thereby reducing the number of iterations (Balogh and Logman, 2008).
- The level of detail of budgets should be summarised and the focus should be on drivers instead (Balogh and Logman, 2008; Galeaz and Miller, 2007).

The same practitioners have also suggested alternative solutions to addressing the deficiencies of budgets. The move away from a fixed annual budget to a rolling forecast, using modelling, is widely written about in business (Bourne, 2005; Howell, 2004; Galeaz and Miller, 2007; Harborne, 1999; Hope and Fraser, 2003). The use of external measurements to measure cost control in the form of benchmarking is also promoted (Bourne, 2005; Hope and Fraser, 2003). A balanced scorecard can be implemented in order to manage and measure non-financial and financial indicators (Bourne, 2005; Harborne, 1999). Another alternative is to replace budgeting with trade-off management (Sorensen and Sullivan, 2005). Trade-off management links the strategic, operational and financial systems by linking their outcomes to conflicting costs and service measures (trade-offs) and allowing for the trade-offs to be planned, measured and managed at different levels in the organisation. Trade-off management allows for strategic objectives to be considered and shared by all thereby creating an open and transparent environment, especially during the budget process (which is reduced with the adoption of trade-off management).

Of all the recommended alternative approaches, this research focuses on the rolling forecast alternative to budgeting. Rolling forecasts are said to address the deficiencies which budgets have and are recommended in times of uncertainty. They are sometimes considered more important than budgets because the assumptions on which budgets are based on, change quickly, and management rely on forecasts to provide a view consistent with these changes. They also provide a view further into the future than a budget (Clarke, 2007) and are disconnected from profit targets thereby requiring no reason to “spin” the numbers (Hope and Fraser, 2007).

This research is relevant to South African businesses in the current environment as this is a country of uncertainty affecting all businesses. Although South has experienced little direct exposure to high-risk home loans and the sub-prime crisis of the United States, the globalised world in which we live in causes us to have indirect exposure to the crisis (Mboweni, 2008). This is partly due to the interdependence South Africa has with its export market, of which nine percent is with the United States and the Eurozone (Donohoe, 2008). This interdependence affects the economy. With a drop in consumption in the developed countries, this would reduce production from all countries supplying to the developed countries, including South Africa. South Africa would therefore experience the second wave of the crisis with the drop in demand.

Other global factors which businesses in South Africa need to keep an eye on are the credit crunch in the United States as well as the price of oil (Hogg, 2008). This coupled with political uncertainty with the new leadership in the ANC, inflation, increase in spend on FIFA World Cup projects (SA Info Reporter, 2008) and the questionable supply of electricity by Eskom are some aspects which create an environment of uncertainty. Banks in South Africa are expected to be sheltered from the crisis however they could still suffer fallouts if the crisis continues (Khumalo, 2008).

With the current debate regarding budgets and rolling forecasts, it is important to investigate this under the current environmental condition of uncertainty. The banking industry has being one of the industry's most affected by the latest crisis. Therefore this research will focus on budgeting and rolling forecasts adopted in the banking industry in an environment of uncertainty.

2. Chapter 2 - Literature Review

2.1. Introduction and Definitions

It is important at this stage to define the terminology which will be used in this paper so that a common understanding is achieved by all. The definitions used are primarily sourced from the Chartered Institute of Management Accountants (CIMA). The terminology which needs to be defined is a plan, a budget, a forecast and a rolling forecast.

2.2. Definitions

- The official CIMA (2008) terminology for a plan is:

“The establishment of objectives and the formulation, evaluation and selection of policies, strategies, tactics and action required to achieve them. Planning comprises long term/strategic planning and short term/operational planning. The latter is usually for a period of up to one year.”

- CIMA and ICAEW (2004) defines a budget as:

“A quantitative statement for a defined period of time, which may include planned revenues, assets, liabilities and cash flows. A budget provides a focus for the organisation, aids the coordination of activities and facilitates control.”

- The official CIMA (2008) terminology of a forecast is:

“A prediction of future events and their quantification for planning processes.”

- A rolling forecast is defined as a forecast for sales, or for costs, but more often than not for both, that always extends a set number of financial periods into the future (Clarke, 2005).

As one can see, there is a distinct difference between the different concepts. Forecasting is generally used to predict or describe what will happen given a set of circumstances or assumptions, whereas planning involves the use of forecasts in making good decisions about the most attractive alternatives for the organisation (Waddell and Sohal, 1994). The budget is a tool which includes both concepts, forecasting and planning.

There is also a difference between budgets and rolling forecasts. Rolling forecasts are different from traditional annual budgets in the following ways (Tanlu, 2008):

- rolling forecasts are not static – they require regular updating
- rolling forecasts are made for horizons that are not limited to the fiscal year
- rolling forecasts are generally not used explicitly for performance measurement and incentive compensation
- rolling forecasts generally require less detail than a traditional annual budget.

2.3. The Role of Budgets in Planning

Now that we have defined the terminology and identified the differences between them, we will explore budgets in a bit more detail focusing on the uses of budgets and the problems identified.

Budgets remain the most popular tool used for planning and generally one of the most popular tools in management accounting. Budgets have the following uses (de With and Dijkman, 2008):

- Aid in making plans
- Used to communicate the plan for the forthcoming year
- Coordinating activities between different functional areas
- Used to allocate resources to achieve the plan
- Control spending in the organisation.

This is supported by Jones (2008) who found budgets to be used for: aiding control, evaluating performance, and aiding long-term and short-term planning. Hansen and Van der Stede (2004) indicate that budgets are used to create short term (operational planning) and long term plans (strategic planning). This is consistent with the CIMA (2008) terminology.

A number of deficiencies have been identified regarding the process of arriving at a budget and the uses of the budgets. The following section will highlight some of the discontent with the uses of budgets.

2.3.1. Uses of Budgets – Deficiencies

The role of goal commitment is an important aspect to explore during planning. Haka and Krishnan (2005) state that during times of environmental uncertainty, there is no need to achieve goals which are no longer relevant. The outcomes of a budget are goals and targets

which need to be met. If the environment is uncertain and changes, the targets and goals become irrelevant as the assumptions on which they were based change. There is an overall trend to link goal commitment to compensation (Williams, 2008). This would therefore affect the compensation models used by businesses. The use of a budget is therefore questioned during high environmental uncertainty.

The multiple uses of a budget can negatively affect the usage of other tools in the companies. Cokins (2008) states that one of the obstacles preventing successful strategy execution is the annual budget process. The worst case scenario is when there is a disconnect between the budgeting process and the executive teams' strategic intention. The other scenario is when strategic initiatives are not adequately funded. The above scenarios are as a result of misalignment of the budget process from the strategic plan.

Compensation is strongly linked to the achievement of budget objectives (Shastri and Stout, 2008). Jensen (2003) states the use of a budget as a tool of measuring compensation instils dysfunctional gaming behaviour. This results in the achievement of the budgets as the biggest influencer of peoples' motivation (CIMA and ICAEW, 2004).

2.3.2. The Budget Process - Deficiencies

The following section will discuss some of the deficiencies of the budget process. The budget process can be a lengthy process in terms of man hours and time to complete. It can take anything from 1 month to 6 months to produce an annual budget (Jones, 2008). Contributing to this is the level of detail at which businesses budget. Ordinary businesses budget over 2,000 line items compared to best practise companies which plan around 40

key items (Keogh, 2008). The greater the number of line items budgeted, the more time would be required. Further questions have been raised as to the value derived from budgeting against all line items instead of only budgeting key items. Many resources spend far too much time on low value activities during the budget process thereby reducing operational efficiencies (Miller and Galeaz, 2007).

Another deficiency of budgets is that it remains static and does not change. This has to be viewed in context with the environment. If the environment remains stable, there is no need to revise the budget. However, if the environment is turbulent and uncertain, the use of a static budget is questioned. After the budget process has been completed, the environment needs to be scanned for potential risks and changes which affect the assumptions used during the budget process (CIMA and ICAEW, 2004). Even if the changes in the environment are identified, static budgets provide limited opportunity for quick adaption (Ekholm and Wallin, 2000; Shastri and Stout, 2008). This affects all the processes which are reliant on the budgets.

A further complication with the process includes the top-down adjustments which occur at the end of the budget process. If the budget does not fall within acceptable ranges upon consolidation, top-down adjustments are made. Because group executives have little visibility into the operational plans of the business departments, top-down adjustments made at the consolidated levels do not take into account how these adjustments impact the operational plans (Barrett, 2005).

Other deficiencies highlighted about the budgeting process include (Neely, Sutcliff, Heyns, Reilly and Smythe, 2001):

- Budgets constrain responsiveness and flexibility and are often a barrier to change
- Budgets are rarely strategically focused and are often contradictory
- Budgets add little value, especially given the time required to prepare them
- Budgets concentrate on cost reduction and not value creation
- Budgets strengthen vertical command and control
- Budgets do not reflect the emerging network structures that organisations are adopting
- Budgets are developed and updated too infrequently
- Budgets are based on unsupported assumptions and guess-work
- Budgets reinforce departmental barriers rather than encourage knowledge sharing
- Budgets make people feel under-valued.

2.3.3. Benefits of Budgets

Although the above deficiencies have been identified with budgeting, it is still commonly used. The budget process is seen to be a useful or very useful tool in many organisations and continue to be used as the primary planning tool (Shastri and Stout, 2008). The process of budgeting is more important than the budget produced (CIMA and ICAEW, 2004). The process helps individuals in the organisation think about and talk about factors affecting the business. By sharing the information across departments, the budget is used to coordinate

plans which span different functional areas (de With and Dijkman, 2008). This allows businesses to move away from a silo mentality to a more holistic view of business.

Haka and Krishnan (2005) believe that traditional budgets generate high goal commitment. This is most suitable for conditions of low economic uncertainty where one has specific goals and commitment towards achieving these goals.

2.4.Changes in the Planning Discipline

With the above discontent tabled against budgeting, one would expect a change in the budgeting practises. Shields and Scapens cited by Waweru, Hoque and Uliana (2004) found that changes in the environment cause changes in organisations, which in turn causes changes in management accounting principles. Waweru *et al* (2004) provide evidence that management accounting practises have changed over time (a decade) in keeping with the change in environment. It is therefore expected that with the environment becoming more uncertain, this would lead to a change in the management accounting practises.

There are mixed results regarding the changes which are occurring in the budgeting environment. Some companies seem to be adhering to the traditional methods and uses of budgeting (Joshi, Al-Mudhaki and Bremser, 2003). Other companies retain the traditional budgeting practises while at the same time making changes to the level of participation in the budget process, the reduced perception of gaming during budgeting and the use of budgets as a tool of motivation (Jones, 2008).

However, there is evidence that as early as 2001 companies have been changing their budgeting practises (Neely *et al*, 2001). Some of the companies mentioned in the study include Borealis, BP, Shell, Electrolux, Ford Motor Company, Volvo and Cisco. Of the 15 companies mentioned in the literature, five companies adopted rolling forecasts. Cruz (2007) also identified changes in budgeting and planning practises in the Portuguese hotel industry. The company analysed the use of internal benchmarks to enhance the efficiency of operational and business decision-making activities and external benchmarking to review market data and identify trends. They have also implemented, amongst other tools, a rolling forecast with the aim of encouraging management to react more quickly to the expected future conditions of the marketplace.

2.5.The Rolling Forecast

One of the possible solutions which caters for the informational purpose of budget is the rolling forecast (Tanlu, 2008). The rolling forecast introduces a continuous planning cycle and future-focused mindset (Harborne, 1999). This is done by continuously updating the forecast with the last completed period of actual information. A new period is then added onto the forecast, thereby always having a fixed (rolling) number of periods which always need to be forecast.

Due to the turbulent market environments in which today's companies operate in, companies are required to re-forecast more frequently (Barrett, 2005). Waddell and Sohal (1994) believe that the role of forecasting is to reduce uncertainty and to aid in decision making. It also allows an organisation to compare targets and milestones with the forecast

estimate, thereby showing gaps between the two under current conditions (Daum *et al*, 2005). Using a rolling forecast helps a company focus on the business activities and why activities should change and not the numbers.

Rolling forecasts improve the accuracy of forecasts when they take into account the latest available information (O'Connor, Remus and Griggs, 2000). This is especially true for forecasts which exhibit trends, either upwards or downwards trends. Waddell and Sohal (1994) argue that forecasts become less useful in environments which are characterised by low uncertainty which can easily be predicted. However, environments which are characterised by high turbulence requires a greater need for forecasting. Tanlu (2008) found that the accuracy of forecasts improved under conditions of low uncertainty but did not improve during high environmental uncertainty. This is consistent with Waddell and Sohal's (1994) finding.

One questions the need for rolling forecasts in times of certainty where the future is fairly predictable. It is more important to use the rolling forecast to help make sense of uncertainty which exists thereby allowing you to better plan to deal with the uncertainty. Further observations made on forecasts for periods further away tend to be overly optimistic to either motivate for resourcing or to make them look more favourable. It would appear that gaming behaviour also exists in rolling forecasts although no remuneration is tied to the forecast. However, Tanlu (2008) questioned this by raising doubt on whether all available information was used when forecasting. Forecasting without having the latest available information could cause result in not producing correct forecasts into the future. However, another option could be that the future is difficult to forecast accurately. It is difficult to establish what the answer is, however this research will test the perception of

the accuracy involved in forecasting into the future. Waddell and Sohal (1994) downplay the criticism against forecast errors stating that if the forecast is ultimately used correctly, it provides only a guide for decision making.

Rolling forecasts also address the issues raised with goal commitment during a time of uncertainty. Haka and Krishnan (2005) state that during times of economic uncertainty where the future goals change continuously learning is important. Rolling forecasts promote learning by creating an environment where hypothesis are created and explored, allowing the structure of the environment to be studied (Haka and Krishnan, 2005). This learning is facilitated by the use of rolling forecasts and is a more suitable technique than using fixed budgets. It results in better decisions being made during uncertainty.

2.6.Environmental Uncertainty

The environment in which we operate is becoming uncertain. Four major developments which characterise today's business environment (Bracken, 2008) are:

- The transformation of industries by technology
- Political risk is becoming more important
- Blurring of industry boundaries, with interlopers attacking new sectors outside their traditional domain
- New competitors are appearing with different strategic personalities than traditional companies.

Gerloff, Muir and Bodensteiner (1990) cited in Gibbons and Chung (1995) state that uncertainty can be split into two different approaches. The first approach is contingency uncertainty which explores the organisation's fit into the external environment. The second approach of uncertainty is perceptual uncertainty which considers the relationship between management's perception of uncertainty and their response to the environment. This research will focus on the perceptual uncertainty as we would like to track how managements' perception of uncertainty has impacted the way in which they change their planning processes.

Duncan (1972) acknowledges that dynamism (rate of continual change) and complexity (the number of factors affecting a decision maker) contribute to uncertainty. However, he argues that the dynamism of change contributes more to uncertainty than the complexity of change which is experienced. It is therefore expected the more frequent change occurs, the more uncertain the environment will be. The complexity and dynamism experienced by organisations are not constant over time. Uncertainty is further dependant on the perception of the resources within the organisation to interpret the environment.

The perception of the uncertainty contributes to the threat experienced by an organisation (Tan and Litschert, 1994). When managers have a good understanding of the impact, uncertainty poses less of a threat (Tan and Litschert, 1994). With a lack of information, it is expected that decision makers become cautious when making resource commitments (Tan and Litschert, 1994) and their appropriateness of the actions depend on the extent of their ignorance (Gibbons and Chung, 1995).

Milliken (1987) states that perceptual uncertainty can be lacking in three areas. Information can be lacking on how the nature of the environment is changing. Alternatively information

can be lacking in not knowing how the changing environmental components will affect the organisation. The third type of uncertainty occurs when information is lacking on the responses available to address the changing environment or on the outcome of the responses on execution.

3. Chapter 3 - Research Questions

There is currently a debate pursuing around the relevance of budgeting. Two schools of thought currently exist. The first school of thought views budgets to be current and relevant. This is understandable as budgeting is argued to still be the most popular management accounting tool and surveys have indicated that the perception towards budgeting is improving. The second school of thought views budgeting to be outdated and should be replaced with more current thinking and tools. One of the recommendations made by practitioners on current methodologies to replace budgeting is the use of rolling forecasts.

There is currently a wealth of academic and practitioner research written on budgeting. This includes amongst others, literature on the budget process, uses of budgets and deficiencies in the budgeting. Some of the deficiencies identified are based on the environment becoming more uncertain resulting in changes required in the traditional budgeting process. Although rolling forecasts have been well written about by practitioners, the author has come across little academic research on this topic. The rolling forecast caters for the deficiencies in the informational use of budgeting.

It is important not to look at this debate in isolation from the environment in which businesses are operating. We are operating in an environment underpinned by uncertainty. This has recently being fuelled by the latest sub-prime crisis. Globally, one of the industries to be hardest hit by this crisis was the banking industry. It is therefore important to have a discussion around the two schools of thought in the environment of uncertainty.

Considering all of the deficiencies listed against budgets, the research problem can be defined as investigating what impact an environment of uncertainty has had on rolling forecasts and budgets. The banking industry will be the industry on which this research will focus because it was one of the industries most affected by the recent sub-prime crisis.

The objective of this research is to look at both planning methodologies in the time of uncertainty. From a budgeting perspective, the objective of this research is to understand how budgeting has been affected by the uncertain environment. From a rolling forecast perspective, the objective of this research is to understand what role rolling forecasts play in the banks planning process.

The questions which will be answered in this research are:

- **Research Question 1: Are banks operating in an environment of uncertainty**

The author began this research assuming that the environment in which banks are operating in is uncertain. The author first needs to validate this assumption by testing whether this assumption is correct.

- **Research Question 2: What changes are banks making in their planning processes to align to an environment of uncertainty?**

Considering that we are living in an environment of uncertainty, the author would like to explore whether changes have occurred in the budgeting discipline to align with an environment of uncertainty. The findings from this research will contribute to whether budgeting is adaptable.

- **Research Question 3: Are banks adopting a rolling forecast?**

This research question explores whether banks are using rolling forecasts. If they are using rolling forecasts, the author will test to see whether the practitioners' claims of the benefits of rolling forecast have been observed. If the banks do not use rolling forecasts, the author would like to explore the reason that persuaded. This will identify where gaps exist in the rolling forecast theory.

4. Chapter 4 - Research Methodology

4.1.Sampling Method

The theory of budgeting and uncertainty are well researched as focus areas on their own.

Little research was found by the author on:

- Rolling forecasts
- Budgeting and forecasting under uncertainty.

Haka and Krishnan (2005) and Tanlu (2008) were the only authors found who have investigated rolling forecasts.

A qualitative research methodology has been adopted to gather deep insights into the financial planning processes used in banks during times of uncertainty. By conducting qualitative research deep insights were gathered by what was being said and how it was said (de Ruyter and Scholl, 1998). Upon crystallising how financial planning processes used in banks has changed during times of uncertainty, the information can be used in future research using quantitative methodology to provide conclusive evidence of this finding (Zikmund, 2003).

Lilford and Braunholtz (2003) hold that qualitative research is used to define the frameworks used for quantitative research in undeveloped areas. This view is consistent with Morgan and Smircich (1980) who argue that in order to prevent the questioning of the assumptions of future quantitative research, ground assumptions need to be first formed and tested in the form of qualitative research.

4.2. Population and Unit of Analysis

The sampling unit will consist of the individuals who meet the criteria listed in the sample section (4.3) below. The unit of analysis will be a financial planning process for a bank.

4.3. Sample

The respondents which made up the sample were selected based on the following criteria:

- Executive management in retail banking businesses
 - Employed by a bank in one of the retail business units
 - Have more than 3 years of experience in the bank
 - Involved in budgeting for more than 3 years
 - In an executive management role in their business
- Senior budgeting and planning management at group level
 - Employed by a bank at the group level
 - Have more than 3 years of experience in the bank
 - Involved in budgeting for more than 3 years
 - In a senior management role for the budgeting and planning process
 - Has a consolidation responsibility during the budget process

The author felt that it was important to interview candidates in an executive management role as these individuals drive strategy, processes and culture within their business. The

planners who are responsible for producing budgets thrive on the detail, a practise which is contrary to what is prescribed for forecasting (Tanlu, 2008). Senior budgeting and planning management at the group level was selected as they prescribe the process which all business units need to subscribe to. It was therefore important to understand their viewpoint from a group level.

There was a total sample size of 8. It was split between 4 retail executive managers and 4 senior managers at a group level.

A convenience sampling procedure was used to arrive at the sample. The sample was selected through personal contacts which the researcher had with colleagues and friends who had access to the individuals required. One of the respondents was contacted through snowballing procedure where the referral to this individual was obtained during an interview.

4.4.Data Collection

The author found that the research questions would be adequately addressed by understanding peoples' knowledge, views, understanding, interpretations, experiences and interactions (Mason, 2002). Data was therefore collected in the form of one-on-one expert interviews. The individuals who were interviewed are considered influential, prominent and very well informed in their line of business and in budgeting and planning. Marshall and Rossman (2006) motivate that expert interviews are the best tool for collecting data from individuals who fit this criteria. Further to that, expert interviews was an optimal tool to

collect data as these individuals operate under demanding time constraints and gaining access to them was quite difficult.

Please refer to Appendix 1 which contains the guidelines on which the interview was based on. The interviews were not confined to the questions. The interviews were seen as discussions where the interviewer ensured that all the questions were adequately covered in the discussion.

4.5.Data Analysis Approach

The data was analysed using content analysis. The aim of this research was to compare the processes and outcomes across multiple respondents in order to develop more sophisticated descriptions and powerful explanations (Miles and Huberman, 1994). Although this was not a case analysis, the methodology of cross case analysis as recommended by Miles and Huberman (1994) was adapted and used to perform the data analysis. It was adopted because it lends itself to enhancing generalisability and deepening the understanding and explanation of the research topic.

The following framework was used to perform the content analysis (Miles and Huberman, 1994):

- **Stage 1:** The data was transcribed. This created a basis for qualitative analysis to be performed.

- **Stage 2:** A meta-matrix was created with the intention of standardising the format of all the respondents in a single master chart. The meta-matrix at this point in time included all the relevant data.
- **Stage 3:** Data was then partitioned further to have a finer grain of data categorisation. The finer grain of categorisation however also resulted in transformation of data into summaries. This was an iterative stage whereby the data from stage 2 went through multiple steps before arriving at the final outcome.
- **Stage 4:** Data which fell together was then clustered so that contrasts between sets of variables of interest can come clearer. This stage results in the transformation of data into a summary table.

The above method contains a mixture of emergent and *priori* coding (Stemler, 2001). It begins with an approach of *priori* coding by using the interview questions as the categories in stage 2. The subsequent stages used emergent coding based on the data gathered from the transcripts. This dynamic technique provides a framework to begin the analysis in a structured format yet allows the analysis to grow based on the data gathered.

4.6. Reliability

Elaborate reliability tests (e.g. Cohen's Kappa) which rely on the use of more than one rater were not used. This was due to time constraints. However, the content was analysed using the three assumptions on which the Cohen's Kappa is based on (Cohen (1960) cited in Stemler (2001)). Firstly, the units of analysis were independent. Secondly, the categories of

nominal scale were independent, mutually exclusive and exhaustive. Thirdly, because the author was the only rater, the analysis was independent.

A standard guideline was used for interviews. Although each interview took a different shape by focusing on different aspects as discussions proceeded, the author ensured that all themes from the interview guideline were discussed.

4.7. Research Limitations

The following limitations exist in the study:

- Access to individuals who fit the sampling criteria was limited. This resulted in a smaller sample size than the author would have ideally liked to sample.
- The respondents in this research were confined only to the retail banking businesses and head office level of the banks. The non-banking and commercial banking businesses were excluded and could influence the results obtained if a holistic view of the bank is required.
- The respondents were confined to executive and senior management. As a result this research does not take into consideration the views held by individuals at the different levels who are involved in the budgeting and planning process.
- Transcription is a judgmental task. It could alter the meaning of the spoken word as we do not speak in paragraphs nor signal punctuation; and does not capture visual cues (Marshall and Rossman, 2006). These issues could be inherent in the transcripts used in this research.

5. Chapter 5 - Results

5.1. Introduction

Data was collected from seven respondents across three different banks through 45 minute interviews. Table 1 below contains the breakdown of the sample.

Institute	Area of Business
Bank 1	2 Business Unit Heads
Bank 2	2 Group Managers
Bank 3	2 Group Managers 2 Business Unit Heads

Table 1: Summary of Sample

After the data was gathered, the recordings were transcribed. Thereafter content analysis was performed on the data to identify key themes. An Excel spreadsheet was used to perform the coding. The Excel spreadsheet consisted of the respondents alongside each other pivoted by the three research questions. This Excel spreadsheet is similar in design to the meta-matrix mentioned by Miles and Huberman (1994). As the transcriptions were analysed, information relating to the research questions were copied into the spreadsheet in the appropriate cells. Further analysis was performed on the spreadsheet to extract key themes from the research questions. A summary of the themes were produced. This summary will be discussed later in this chapter.

The results were organised according to the research questions laid out in Chapter Three.

The key themes will be discussed per research question.

5.2. Research Question 1: Are banks operating in an environment of uncertainty

Research question one sought to verify whether banks are operating in an environment of uncertainty. The question asked during the interview was: *What drivers affect decision making in your business and how often do these change?* The discussion which followed this question was around variability of these drivers and businesses response to them.

Figure 1 below contains a summary of the themes discussed during the interviews.

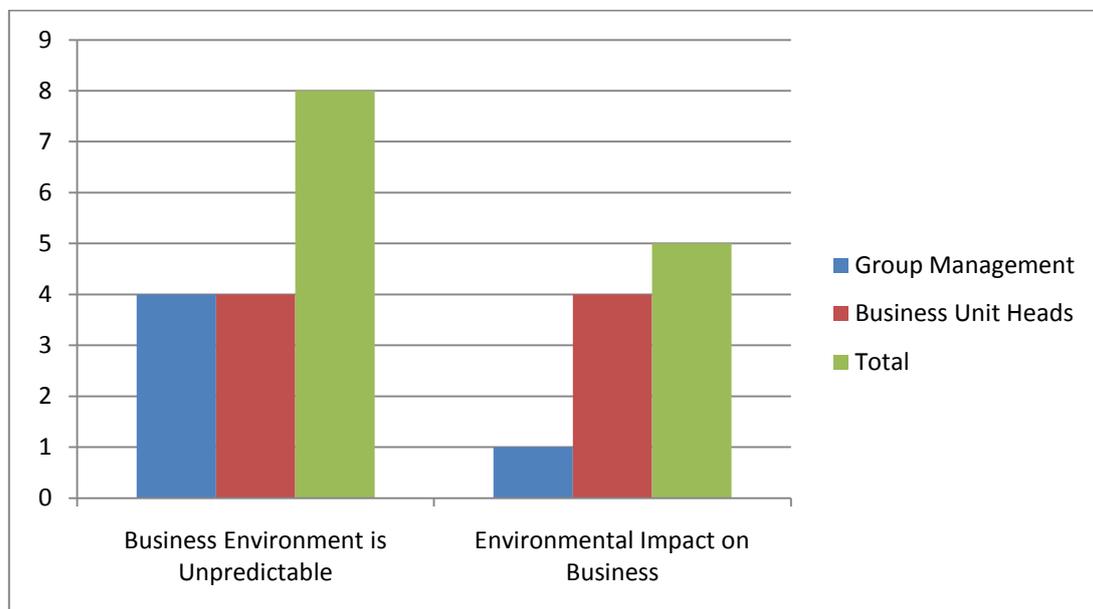


Figure 1: Summary results for research question 1

5.2.1. Information on the Business Environment

100% of the respondents provided input regarding the unpredictability of the business environment in which they operate. From the 100% who responded, 50% were business unit executives while 50% were group managers.

Table 2 below contains comments raised which are applicable to the business environment in which banks are operating:

Respondent	Comment
Respondent 1	By the time one reaches the beginning of the year for which the budget becomes applicable, the assumptions on which the budget was based becomes out of date.
Respondent 2	Because you can do your bottom up today and in a week's time it has gone a totally different route.
Respondent 3	The results were swaying so much because there wasn't any predictability to the information that was received
Respondent 4	The market is expected to continuously change.
Respondent 5	So definitely, I think a lot of stuff is foreseen but the magnitude of it and the timing is obviously also there, so there is definitely a lot of uncertainty around that.
	September of the previous year and your economic assumptions are vastly different already starting at the beginning of the year
	Going into 2009 obviously there was a lot more change in interest rate assumptions and the whole environment
Respondent 6	It has now become a very volatile environment.
Respondent 7	You can forecast something now and six months down the line things have changed; interest rates change has a huge endowment and credit impact.
	The big factor there is the interest rates. And that why it has a significant impact on our income statement, if that changes. But it is difficult to forecast, especially in a tough economic environment
	I think what caught us was it went up quickly and came down quickly, if you know what I mean. It was over a two or three year period but to go from 10.5 to 15.5 and then it came down quite rapidly.
Respondent 8	There is uncertainty regarding the macro economic situation

Table 2: Comments relating to the business environment

5.2.2. Information on the Environment Impact to Business

63% of respondents provided input regarding the impact of the environment on business. Of the 63% who replied, 20% were group managers while 80% were business unit executives.

Credit was specifically raised by 38% of the respondents. They indicated that the credit business unit lacked information on how the environment impacted the business. Of the 38% who replied, 33% were group managers while 67% were business unit executives.

Table 3 below contains comments raised which are related to the impact of the environment on business:

Respondent	Comment
Respondent 3	What the business forecasts and what they end up achieving is very close.
Respondent 4	You definitely have the information. The question is whether you have the right information, but there will also always be a different view to the information you have.
Respondent 6	So I think those guys have a very good handle on their particular businesses. I think we do have the information we require, because obviously a lot of it is either group or volume or pricing. So I think they know what to do in that particular space.
	With the NCA and Competition Commission rulings, there are always new things coming up and it actually makes the guys actually have to re-look at their businesses and how they actually plan for it. So the environment isn't predictable.
Respondent 7	Each business unit knows the drivers, know the common objectives, and they will plan accordingly and they will set their strategies again
	you know a ½% here or 1% there makes a big difference, and if you move that cut or rise three months earlier or three months later it can be significant, like maybe if we make 4 billion, maybe 200 million rand.
	If there is an upturn you know certain things are going to behave in certain ways, if there is a downturn you know certain things are going to behave in a certain way

Table 3: Comments relating to the impact of environment on business

Contrary to the above, Table 4 contains comments made relating to Credit:

Respondent	Comment
Respondent 3	And I think particularly in the very volatile impairment environment at the moment. We know all banks are going through the same with their impairment numbers
Respondent 6	We saw it, how credit impairment charges kind of snowballed from process to process.
Respondent 8	So there is a lot of uncertainty inherent to all the processes; credit came out a lot worse than what all the banks expected, driven by the macro economic situation.

Table 4: Comments relating to Credit

5.3. Research Question 2: Changes made by banks to their planning process

Research question two sought to identify the changes which have occurred in the budgeting process. The question asked during the interviews was as follows: *How has your planning process changed over the last three years?*

Figure 2 below contains a summary of the themes discussed during the interviews.

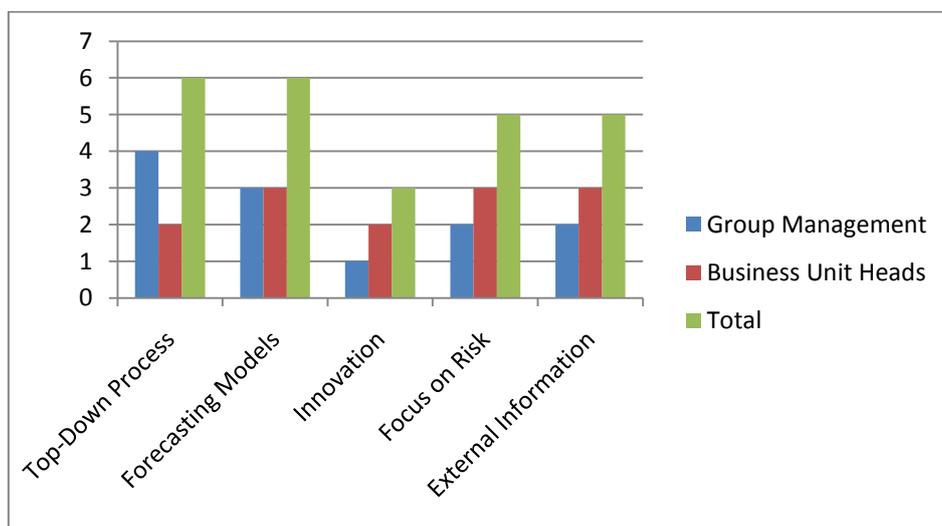


Figure 2: Summary results for research question 2

5.3.1. Process Change

75% of respondents provided input regarding changes in the process which are occurring. Of the 75% who replied, 67% were group managers while 33% were business unit executives.

Table 5 below contains comments raised which relate to process change:

Respondent	Comment
Respondent 1	It is far better than it used to be, when we just did bottom up; because whenever you did bottom up it never met the expectations of the executive, and then it was too late. But now by doing the top down and getting a commitment on a target
Respondent 2	So what happens in target setting is the centre does its own target setting based on modelling techniques, and benchmarking against peers
	We would like to [model at a lower level]. It would be very beneficial but it is actually not worth it, because once you force everyone to do it, it creates so much more work.
	Get them to believe that building a top down model, being able to do top down planning, is benefiting their business by being able to react to changes in the market place.
	It is worth it for them because they can see it is rated numbers the entire time as they change.
	Strategically it is difficult for them to commit to something if they don't know what the end result of their commitment is.
	Okay so this is pretty much the planning process and what it really entails is there is a piece of strategic planning that happens pretty much before my process starts, which is my interaction with group strategy, and our interaction together with the group EXCO.
	Now the reason we have target setting before we actually get into the actual detail of the plan is we need to set an expectation. Otherwise you end up with a planning gap.
	In the bank we don't do that, because we historically never used to do a lot of planning. We used to do a lot of budgeting. So what we did was form a planning area
Respondent 3	Last year December they started going because we started doing these forecasts right, we now have weekly forecasts, where on a week-by-week basis we give them an outlook in terms of where our end position is going to be for that month.

<p>Respondent 5</p>	<p>So I think there definitely is a need to do that, just to get people thinking a bit further along the line, so that we have got those straw-men always in place for your next detailed exercise that you do go into.</p>
	<p>The processes that we have at the moment are very detailed and as I say if there is a change in assumptions or change in direction or whatever it might be, the whole iterative process of getting out a new number is quite drawn out and I think what we are trying to head towards with the rolling forecast process is to be able to have information readily available that you can update for certain factors and you might not get to the exact 100% answer but it will steer you in the direction.</p>
	<p>I think we forget sometimes, especially sitting on the central side, that there is a small change it has to run through a lot of iterations to get a number out. And I think that is what draws the process out a wee bit longer, because obviously your first draft you present is not the one that is going to fly straight away and it is getting those changes through which is the bigger recurrent thing.</p>
	<p>It is one level above that; we are trying to take it to a strategic direction and be able to see the impact of the direction fairly quickly, rather than the big turnaround that we have now.</p>
<p>Respondent 6</p>	<p>What we would like to see is that when we go to EXCOs and boards with our monthly numbers, where you have actual versus budget, they can talk about that for five minutes and then they can talk about this is the forecast for the next quarter or six months or year or whatever it is, and they can actually start to see very early on whether or not we are going to achieve certain targets or whether we are going to come under pressure in certain areas, and then maybe react to those particular pressure points.</p>
	<p>So it just goes to show you that we can't react that quickly to the fall out that was happening, and then you turn around and say 'well the amount of effort involved definitely far outweighed the costs' sort of thing.</p>
<p>Respondent 7</p>	<p>That strategy then gets presented to the Retail EXCO and I suppose they collectively agree that it makes sense and then it will cascade into the business unit, and then it becomes a bottom up approach.</p>
	<p>They will start having a look at it but on the side we have a process where the team that I am in will almost try and do a bit of a straw-man of the budget, so look at the economic outlook, make some high level calls around endowments and your asset growth to liability growth – the key things that you know are big items that could have big impact on it.</p>
	<p>So before you go in there you don't need to get the view of the bottom up to be able to say there is a problem; you try and get your first view of the top down perspective, because then you already know when you advise the different business units</p>

	A top down can give you a directional view, but when you do your budget process I don't think you can get away from it, because the quantum of the numbers is just too big.
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Table 5: Comments relating to process change

5.3.2. Forecasting Models

75% of respondents provided input regarding forecasting models. Of the 75% who replied, 50% were group managers while 50% were business unit executives.

Table 6 below contains comments raised which relate to forecasting models:

Respondent	Comment
Respondent 2	One needs to have a budget, a budget that you can change and tweak and change a driver and have an impact. It doesn't necessarily have to be 100% correct but if someone says to you interest rates will change tomorrow by 50 bips, what impact will that have on your plan.
	We select key line items so for example in expenses we only select operating expenses.
	Get them to believe that building a top down model, being able to do top down planning, is benefiting their business by being able to react to changes in the market place.
Respondent 3	If our interest rates went up next year August, they would based on what we have put in, they can actually see what the numbers are going to be.
	However, they do have factors where they can model at a very high level, except for volumes and things like that, they can, because they have got the interest rates on the system, right.
Respondent 5	So other than the fact of just being able to constantly adapt to the environment changing around you
	So I think, especially we have always had quite a big turnaround time in that if rates change or people have a different view to take on things, it is quite a big turnaround and I think that drives the need for your rolling forecasts
Respondent 6	If you are doing a forecast within a couple of days obviously you have got the rest of the month to react to what is actually coming through, as opposed to working for a month or six weeks and then almost being reactive to what is actually happening.

	<p>I think creating a rolling forecast actually allows that to happen because it is done much quicker, it is far more flexible, and if you do need to change something you can actually react to it very quickly, which is where you get your benefit from.</p> <p>And the need to be able to react to that change is considerable and to be brutally honest, I don't think that we have the systems in place to actually react that quickly to what is actually happening in the markets at the moment.</p>
Respondent 7	<p>But you will probably want that process also to be a bit of a top down process, so you will probably start developing models where we can actually do the three year forecasting at a more central level and get the business units to do more checks.</p> <p>I think in times like this probably yes and I will tell you why, because if you want to manage the business holistically, in a tough environment, you need to understand everything in detail</p> <p>You will probably always want to do that scenario or when certain things happen, to be able at the end of the day to have a high level view and say okay we think this is what the implications are going to be.</p>
Respondent 8	<p>Not at the same level as the estimates: what we would do is drop off the monthly budget, and then high level project going forward what the year ahead is going to be.</p>

Table 6: Comments relating to forecasting models

5.3.3. Focus on Innovation

38% of respondents provided input regarding the greater focus on innovation. Of the 38% who replied, 33% were group managers while 67% were business unit executives.

Table 7 below contains comments raised which relate to innovation:

Respondent	Comment
Respondent 4	<p>So I mean the issue is about the lessons we can take, but issues should be about the future and innovation and understanding and possibly coming up with solutions</p> <p>And look when you look at banks now it is no more about variances like why is your transfer pricing R15000 more than last month, you know? It is more about 'how can we improve for example what is happening in our collections'.</p>

	<p>So these are the exciting things, so planning is not just about the finance, it is about being able to be innovative and always being able to be a step ahead in terms of what your competitors are doing.</p> <p>How can we become more innovative? Because if we collect more then you can improve on your impairments. That is really the kind of thinking that is coming into planning now.</p>
Respondent 6	I mean we have had NCA, we have had Competition Commission rulings, so there are always new things coming up and it actually makes the guys actually have to re-look at their businesses and how they actually plan for it.
Respondent 7	But it doesn't happen as part of the budget process. It happens during the year because you know that you constantly need to drive efficiencies.

Table 7: Comments relating to Innovation

5.3.4. Focus on Risk

63% of respondents provided input regarding the greater focus on risk. Of the 63% who replied, 40% were group managers while 60% were business unit executives.

Table 8 below contains comments raised which relate to the focus on risk:

Respondent	Comment
Respondent 4	But you can say you have the information and it is a very comprehensive view because you don't just look at SA, you look globally, you do your stress testing.
	I think the amount of stress testing that is done is much more robust. That is a fact for me, whether positive or negative. And the robustness of that exercise is definitely much more intensive than it used to be.
Respondent 5	They also feed the requirements of group capital and group risk and then there are little scenarios that are then performed on the three year plans
	I think at the moment [there is a strong focus on risk] – less in the past but definitely at the moment there are the requirements coming out of group

Respondent 6	So for instance if we are doing 2009 at the moment, there will be a 10 and 11 attached to the back of that, and that is purely for stress testing purposes, and I think as a result of what actually happened in the environment, just to actually show they can take these group risk models and stress the actual output, just to ensure that we are looking ahead and potentially foreseeing potential problems
Respondent 7	And when you look at that you look at product cut, segment cut and maybe a risk cut, in the sense of do you want to grow liquidity in the sense of assets when liquidity cost is uncertain. And then stress testing we also do and that is based on a stress scenario selected; there are a few scenarios put forward and then you and EXCO have a look at it and they say they want to have a look at that one and then we technically go through the similar process to the three year forecast.
Respondent 8	From a planning point of view what we do is stress tests and we have a normalized situation and then we stress them. We simulate crises all the time.

Table 8: Comments relating to Risk

5.3.5. Use of External Information

63% of respondents provided input regarding the use of external information. Of the 63% who replied, 40% were group managers while 60% were business unit executives.

Table 9 below contains comments raised which relate to the use of external information:

Respondent	Comment
Respondent 2	So what happens in target setting is the centre does its own target setting based on modelling techniques, and benchmarking work, so it benchmarks against peers
Respondent 3	In the market place we are very good at understanding this market, we understand trading, we understand our competition, so when things happen and people ask us, we have the answers.
Respondent 4	So you must have a better understanding of the customer; the profile and needs of the customer so you can have a solution for the customer.

	Your credit is key, just your business intelligence – what are you doing, what are your competitors doing, what do you understand your customers to be like and how do you segment them?
Respondent 6	I mean we have had NCA, we have had Competition Commission rulings, so there are always new things coming up and it actually makes the guys actually have to re-look at their businesses and how they actually plan for it.
Respondent 8	But in the banks because there are quite a lot of published financial statements, as well as a lot of government returns, you do get to see a lot of competitor report.

Table 9: Comments relating to the external environment

5.4. Research Question 3: Are banks adopting a rolling forecast?

Research question 3 sought to establish whether organisations are using rolling forecasts in their planning processes. The question asked during the interviews was as follows: *Are you using rolling forecasts as part of your planning processes.* Discussion then pursued around why they were/were not using rolling forecasts.

None of the respondents used rolling forecasts. Two of the respondents (from the same bank) are currently changing their planning process to incorporate a forecasting model which they term rolling forecast. The definition of the rolling forecast which will be implemented by these respondents is not the same as the definition of rolling forecasts for this paper. The respondents rolling forecast always forecast to the end of a financial year and do not roll a set number of periods into the future.

Figure 3 below is a summary of the themes highlighted as to why rolling forecasts are not used.

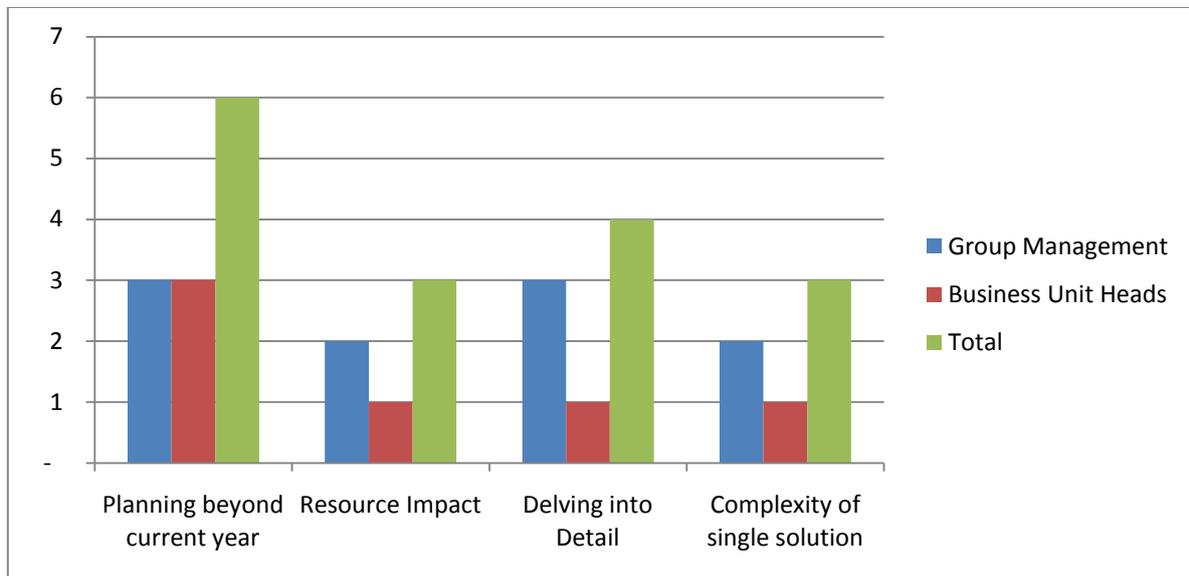


Figure 3: Summary results for research question 3

5.4.1. Planning Beyond the Current Financial Year

75% of respondents provided input regarding planning beyond the current financial year. Of the 75% who replied, 50% were group managers while 50% were business unit executives.

Table 10 below contains comments raised which relate to planning beyond the current financial year:

Respondent	Comment
Respondent 1	But you are still guessing. I mean even with a rolling forecast you are still guessing 12 months ahead.
	So the focus is on next year, as accurate as possible
	So you will find that the remaining two years are often extrapolations because nobody is that good at telling the future. I mean it is just not possible.

Respondent 2	And the reason we don't look at calendar we look at fiscal year ends is because year two and three are so far in advance, people don't look at that plan in a monthly view.
	So what we do is rather shock the plan with big things, rather than shocking it with monthly changes.
Respondent 3	We barely ever stretch it beyond that, because who is to predict what is going to happen in three years time, but we certainly always do a three year plan.
Respondent 6	If you start looking at month on month and using a rolling forecast it is going to give you a lot better result and I would believe you are going to get a lot closer to your actual target, as opposed to just planning for one period for 2010 and one for 2011.
Respondent 7	My view is that business is still very uncertain as to you know, three years from now is a long time, two years from now is a long time
	You see the only thing you must be careful of with that 12 month forecast, is if you go to the next financial year it becomes meaningless because no-one can relate to it.
Respondent 8	We do the budget process, over a two to three year process going forward and it is all the stress tests, all the scenario planning are all out; the reality of the situation is that it is very difficult to plan with a degree of accuracy through those times.

Table 10: Comments relating to planning beyond the current financial year

5.4.2. Resource Usage

38% of respondents provided input regarding the use of resources during rolling forecasts.

Of the 38% who replied, 33% were group managers while 67% were business unit executives.

Table 11 below contains comments raised which relate to resources and rolling forecasts:

Respondent	Comment
Respondent 2	So in order to get an updated plan, a rolling plan every month, you would have to expect them to do a 36 month plan and that is a massive amount of work.
Respondent 5	<p>I think there is a bit of a fear in retail that it will turn into a monthly budgeting process and we don't really have the capacity for people to spend every month.</p> <p>So other than the fact of just being able to constantly adapt to the environment changing around you, I think just the way business is nowadays and to be productive, you are going to have that need for rolling forecasts and things and I think that probably would have been driven anyway</p>
Respondent 7	So from a capacity perspective, to have another forecast in between I don't think adds value into it.

Table 11: Comments relating to resource usage

5.4.3. Fear of Delving into the Detail

38% of respondents provided input regarding the change in detail during rolling forecasts.

Of the 38% who replied, 67% were group managers while 33% were business unit executives.

Table 12 below contains comments raised which relate to the change in detail:

Respondent	Comment
Respondent 5	<p>I guess buy in is always a difficult part, in that I think there is a bit of a fear in retail that it will turn into a monthly budgeting process and we don't really have the capacity for people to spend every month.</p> <p>So it is going to take some mindset changes and things like that to meet those</p> <p>I think it starts with the right thought processes and things, it starts people asking questions earlier and thinking strategies and things like that earlier, which I think will always be beneficial.</p>

	<p>Down to business unit levels there isn't, and I think people are scared that they see the request for detail coming out of these forecasts</p> <p>So I think the big thing is with any change is that it is going to be the change management around it, as needing to be handled obviously carefully.</p> <p>Whereas now you are having a budget revision as almost like a whole new budget process, if you want to call it that, really having a look at the detail and having a look back at things completely because some of the assumptions we have made have been different to how they have turned out.</p> <p>I have sat in a lot of EXCO meetings now and I think a lot of the detail is driven out of the business units, is driven because people ask the questions.</p>
Respondent 6	<p>But the minute you start going at a very high level then the business units start to want to come with a much lower level, because they feel that their directors are going to start asking questions about this or that.</p> <p>So it just tells you that we dragged out the process an extra two weeks after we got the prelim number from them, basically to get to the same number. So it is starting to tell you that 'is the level of detail really necessary'</p>
Respondent 8	<p>If you need processes you can get a lot more efficient on this and you also need to understand how your EXCO is thinking, what is their level of attention to detail, because that changes things. And if you have got an EXCO that is very detail-driven based, you are not going to get away from the detail</p> <p>But only the problem is if you do it too often they see the number and they want to know why and then it takes you two weeks to investigate why that number is what it is.</p>

Table 12: Comments relating to change in detail

5.4.4. Complexity of Defining a Common Rolling Forecast

50% of respondents provided input regarding the complexity of implementing a rolling forecast. Of the 50% who replied, 75% were group managers while 25% were business unit executives.

Table 13 below contains comments raised which relate to implementing a common model:

Respondent	Comment
Respondent 2	But the important thing to remember in this process is if you are the centre you can never tell the businesses what to do.
Respondent 5	I think their fear is also that the group is looking for these rolling forecasts for one reason and the need for a rolling forecast within a business unit might be for a different reason, and those two reasons can meet.
Respondent 6	I think the biggest challenge is one size doesn't fit all
Respondent 7	You need to look at the purpose and why you want to use it.

Table 13: Comments relating to complexities of implementing a rolling forecast

6. Chapter 6 – Discussion of Results

This chapter discusses the results listed in Chapter 5. It is structured according to the research questions. Each research question has a discussion based on the themes listed in Chapter 5.

6.1. Research Question 1: Are banks operating in an environment of uncertainty

Research question 1 sought to establish whether banks are operating in a business environment of uncertainty. The assumption made by the author at the start of this research was that banks are operating in an environment of uncertainty. This question tests this assumption. Milliken (1987) states that uncertainty can exist if information is either lacking in the nature of change happening in the environment or on how the environment impacts the business.

Figure 1 below contains a summary of the themes discussed during the interviews.

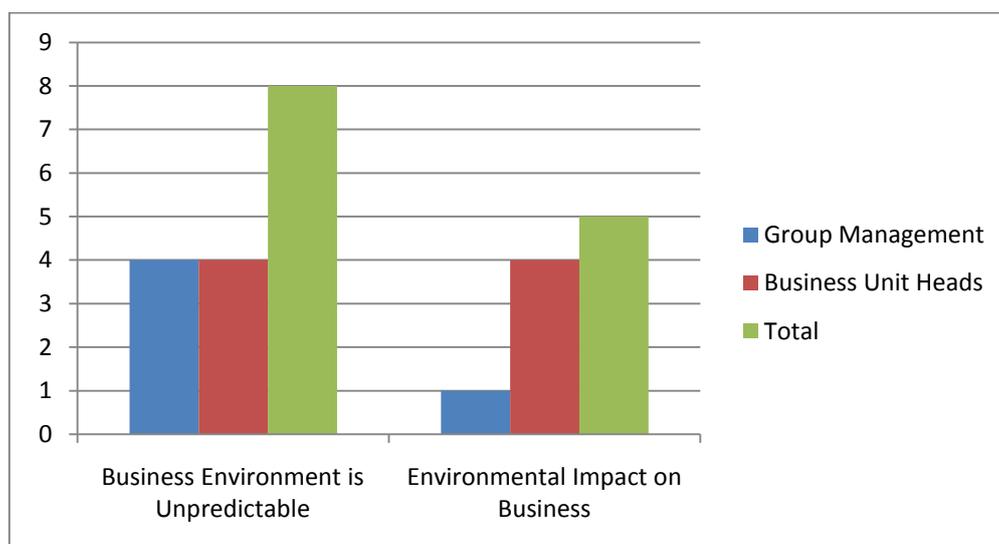


Figure 4: Summary results for research question 1

6.1.1. Information on the Business Environment

100% of the respondents provided input regarding the unpredictability of the business environment in which they operate. From the 100% who responded, 50% were business unit executives while 50% were group managers.

All respondents stated that the environment in which they operate in is uncertain.

Comments made about the budget reinforced this point. When the trading year begins, the assumptions made during the budget process for that year become outdated. This is because the assumptions made are usually derived 6 months before the year begins. This indicates at the time when the assumptions are made, it is difficult to forecast the year being budgeted. Some respondents raised that change was happening in much shorter time intervals and spoke of changes from week to week. This resulted in no predictability in information.

The rate at which change occurred and the magnitude of change was also raised. Discussion around this was focused primarily around interest rates. Interest rates are a huge driver for banks. Change in interest rates has an endowment effect and a credit impact. The endowment effect affects the banks interest margins as the interest rates change. When the interest rate decreases, the interest rate at which the money is borrowed from the banks' debtors decrease marginally and not at the same rate, whereas the interest rate lent out to the banks' customers are decreased by the rate decrease. This results in a decrease in the interest margin earned by the bank. The reverse happens when the interest rate increases. The increase in interest rate by the banks' debtors increases marginally whereas the interest rate charged to the customer increases by rate increase. This will result in an increase in the

interest margin. The credit impact occurs when interest rates increase, customers could start defaulting with their loan payments as they loan payments can become unaffordable. This results in an increase in bad debt. Both of these impact the profitability of the banks.

The rate at which interest rates increased and decreased over a three year period was unforeseen. The timing of the change is also important as difference in timing of the planned changes to when they actually happen can result in variances of hundreds of millions of rands as banks lending books on which the profitability (especially for retail banking) is usually based on can extend well into the billions of rands. The larger the variance between the planned and actual interest rate, the larger the impact will be on forecasted plans.

Changes to the market in which the businesses operate were also raised. The customers' profile is changing and needs to be monitored. Banks need to ensure that they add value to customers. This can only be done if banks understand the customers hence they need to be in touch with the changes happening in the market. Competition is also increasing. Banks are competing with other industries offering similar products as they do. Examples of these include mobile operators and retailers. Banks need to understand their competition and differentiate themselves from their competition.

The above indicates that the information regarding the business environment is not predictable. According to Milliken (1987), a lack of information on the business environment creates uncertainty. Duncan (1972) states that the rate at which change occurs increases uncertainty. Both of these are visible in the comments received by the respondents. There is overwhelming support that the environment in which banks operate is uncertain based on these criteria.

6.1.2. Information on the Environment Impact to Business

63% the respondents provided input regarding the impact of the environment on business. Of the 63% who replied, 20% were group managers while 80% were business unit executives. There are conflicting views regarding this point.

Credit was specifically raised by 60% of the respondents who raised this theme. They indicated that the credit business unit lacked information on how the environment impacted the business. Of the 60% who replied, 33% were group managers while 67% were business unit executives.

Comments from the interviews indicate that businesses generally understand the impact of the environment on business. The respondents indicated that they have access to the information required to run their business. Further to this, they understand how this information affects the business. One of the respondents indicated that his forecasts are very close to the actual performance he achieves at the end of the financial year.

On the contrary, part of understanding the impact of the environment is ensuring that they have the right information. Doubt was raised whether the right information is available when forecasting. The respondent supported this doubt by asking the question, "If the right information was used, why was the sub-prime crisis not foreseen?". Interestingly, Goldman Sachs, an American investment bank predicted the sub-prime crisis one year before it happened (Arlidge, 2009). This was achieved by monitoring the bank's assets, profits and the market on a daily basis. This highlights information which should be monitored by banks which can impact their business but seems like it is not.

It was also stated that with the changes in the environment, business units need to relook at their businesses and how they respond to these changes. The example given was the introduction of the National Credit Act (NCA). Two of the objectives of the NCA were to prevent consumers from borrowing more than they can repay and to ensure that credit providers lend in a responsible manner. The NCA stipulated certain criteria which need to be adhered to for a loan application as well as storage of the credit agreements. Businesses need to therefore understand the new regulation and thereafter find ways of adapting to it.

The impact of the environment seemed to affect the credit business unit of the bank more. During the interviews, three respondents specifically mentioned the difficulty in forecasting the credit impairment charges of the bank. The banks' credit impairment charges are the provisions for non-payment of the loans. The credit business is responsible for analysing the credit risk and did not seem to have a handle on this information. These respondents were of the view that the impairment environment was very volatile and difficult to forecast. The figures forecasted did not meet expectations. One respondent indicated that the forecast figure "snowballed" from planning process to planning process. This gives an indication of how unpredictable the impairments were.

There is a mix of sentiments coming through on whether business units understand the impact of the environment on them. On one hand, businesses indicate that all the information required for forecasting is available and business understand how this impacts the business. The second school of thought indicates that businesses' need to be monitoring the changes in the environment which could result in information lacking on how the environment affects business. The inability of forecasting impairment also raises questions on whether the impact of the environment is understood.

It is therefore difficult to ascertain whether uncertainty is also created by the lack of information on how the environment affects business. However there are indications that uncertainty exists because of this. Future research could be conducted to investigate why credit impairment charges are difficult to forecast under uncertainty. A second research topic which should be considered in the future is to identify what information was required in order to foresee the global crisis.

6.1.3. Conclusion

We can see that there is overwhelming agreement that information is lacking on how the business environment is changing. There is even less information on how the environment impacts the credit business unit. There is a mixture of uncertainty and certainty in the remainder of the bank. The author argues that banks are operating in an environment of uncertainty.

6.2. Research Question 2: Changes made by banks to their planning process

Research question 2 sought to understand the changes taking place in the financial planning processes. The changes identified are:

- Addition of a top-down process
- Adoption of forecasting models
- Focus on innovation
- Focus on risk analysis

Figure 2 below contains a summary of the themes discussed during the interviews.

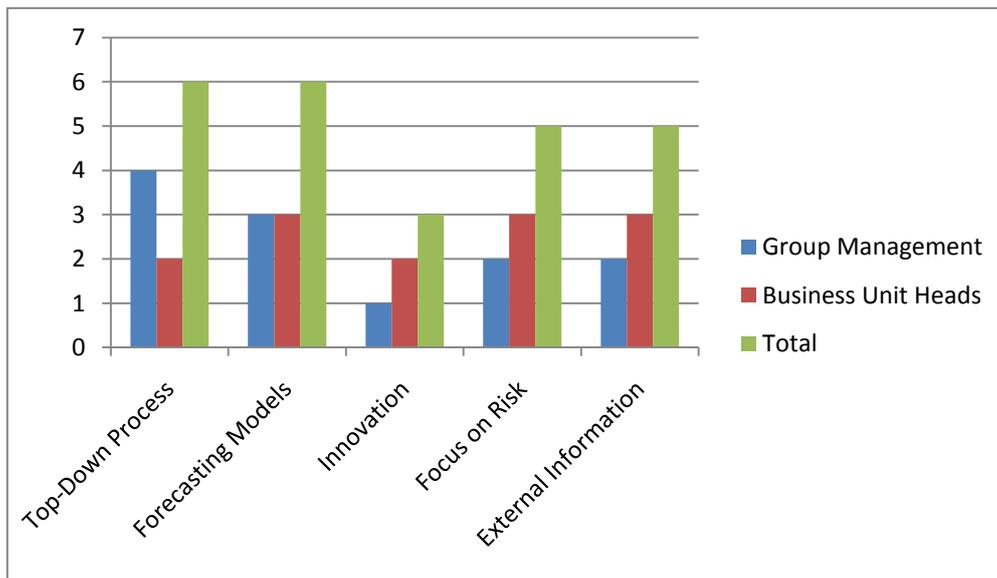


Figure 5: Summary results for research question 2

The following section discusses the results in more detail.

6.2.1. Addition of a Top-Down Process

75% of respondents provided input regarding changes in the process which are occurring. Of the 75% who replied, 67% were group managers while 33% were business unit executives.

One of the improvements raised was the addition of a top-down process step in the budget process. The process changed from a purely bottom-up process to a combination process which starts with a top-down process and ends with a bottom-up process. Three reasons were noted as to the reasons driving the change in the process.

Firstly, business could not react quickly enough to the changes happening in the environment. Any change in assumption or change in direction would result in an iterative

process of making changes to the lowest level of detail and getting agreement on a number. The process was quite drawn out and did not allow for quick response.

Secondly, the bottom up process would be an iterative process because it never met the expectations of the executives. The bottom-up budget process required budgets to be created at the lowest level of detail. This would result in a budget produced for profit centres and cost centres by general ledger account. Budgets could be produced by other important slices of the business, for example by product or segment. After all profit centres and cost centres produce a budget, it is then consolidated at the central point and reviewed by the executives. If the budget does not meet the executives' expectations, the profit centres and cost centres would be required to adjust the budget and resubmit for approval. This process would continue until the executives are happy with the overall budget.

Thirdly, it was difficult for executives to commit to a budget produced because of processes which run late in the budget process, or processes which continually run and change the figures. These processes include recharge of transfer costs and funding of the balance sheet. As these processes run, the budget derived change to accommodate the costs which are recharged and the funding cost. Strategically, the executives found it difficult to commit on a budget if the budget is changing.

Having a top-down process promotes strategic decision-making and direction setting for the budget process. This step can be viewed as a target setting step in the process to which the bottom-up budget needs to be aligned to. By changing the budget process to include a top-down process before the bottom-up process begins can reduce the number of iterations which occur during the bottom-up process as businesses have an idea of what the end goal

needs to be. This translates into time saving during the budget process. This was observed in one bank and a second bank was making the relevant changes to arrive at this process.

By using a top-down process before the budget process, it also improves transparency into possible transfer charges and funding that a business unit would be attracting from other business units. This gives business units greater insight into transfer charges much earlier in the process thereby allowing them to cater for the costs earlier in their plan and minimising the shock later in the process. This also translates into time saving as businesses do not have to adjust their budgets as a result of recharges and funding.

It was also noted by two respondents that they would like to see the top-down process happen all throughout the year either at monthly or quarterly intervals. The results from this process can be used as discussion points during EXCO meetings where a small amount of time will be spent comparing the variances of the period just completed with more time dedicated to looking at the forecast. This will result in identifying at an early stage whether certain targets will be met or not.

The change in processes made by the banks addresses some of the deficiencies stated by Jones (2008) and Barret (2005). The amount of time spent on budgeting which was raised as a deficiency in the budget process (Jones, 2008) has being addressed by the introduction of the top-down process. The top-down process also addresses the issues of top-down adjustments which happen at the end of the process (Barret, 2005) by incorporating executive input earlier in the process.

6.2.2. Adoption of Forecasting Models

75% of respondents provided input regarding forecasting models. Of the 75% who replied, 50% were group managers while 50% were business unit executives.

One of the changes made during uncertainty was the implementation of forecasting models. The forecasting models mentioned by the banks are quite similar in design and purpose. Forecasts are done at an aggregated level of detail (key line items and business unit level and not the chart of accounts or at profit/cost centre level). They differ from rolling forecasts in that they are forecasts to the end of a fiscal period (3 fiscal periods) and do not roll.

The forecast models were implemented for similar purposes, namely:

- **Perform impact/scenario analysis:** When changes occur in the business environment the forecast is used to evaluate the impact on the bank. The turnaround of the impact analysis is quick because this is done on a summarised level of detail thereby not taking the amount of time it takes to complete a budget. This allows the business to quickly react to changes in the environment. Scenario analysis can also be performed on the forecast model. This is achieved by making the forecast models driver based where rules and drivers are defined. The update of the drivers results in key lines being populated. This can therefore be used to constantly update the company's financials in line with the changing environment.
- **To support the top-down process:** With the ability to perform quick analysis, businesses are using the forecasting models to support the top-down process. The top-down process is a strategic process which normally involves executives. In

order to perform this task, summarised level of information is required. The forecasting model is at a summarised level of detail, containing key line items and ratios. It also contains driver based rules whereby the update of drivers result in the line items changing according to defined rules. The forecasting model is therefore an ideal tool to be used for the top-down process.

The implementation of such models has challenges associated with it. With the implementation of the forecast models, one of the changes which accompanied it was a change in culture. Previously plans were produced using a bottom-up approach where plans would be based on the lowest level of detail. Now, forecasts would need to be completed on an aggregate level of detail thereby moving business away from their comfort zone of detail. This will be discussed further in Chapter 6.3.4.

It is important to clearly define what the objective of the forecast is. During the interviews, it was stated by two respondents that the forecast should only be a guide. It does not necessarily have to be 100% correct, but should give an indication of how the business is impacted and should then be able to steer you in the right direction. Remuneration should not be tied to the forecast. In the interviews, the scenario analysis models were not used to derive operational plans or identify gaps in the operational plans but purely to derive a financial view. Group management hoped that businesses within their bank would use such models in the future and there is certainly room for future enhancement in this area.

An alternative viewpoint was raised by one of the respondents who also hugely supports the principles of forecasting. During the recent uncertainty caused by the sub-prime crisis, it was observed that his business units moved to a more thorough detailed method of revising the

quarterly plans. The quarterly revisions in the past were a quick revision of the budget as the revisions and the budget were comparable. If the environment becomes uncertain and changes continuously, it seems as though extra detail is required to understand how the environment impacts the business before producing the forecast.

It seems like the respondents who use forecasting models reap the benefits of including it into their planning process. It enables the top-down process and allows for quick impact analysis to be performed thereby allowing business to react quicker to the environment. It is however important to clearly define the purpose of the forecast.

Forecasting models support the process flow thereby also contributing to a reduction in man hours which addresses the issue raised by Jones (2008) on the lengthy budget process. Although the banks still use detailed budgets, the use of forecasting models is a step in the right direction as it uses summarised level of detail as seen in the budgeting practises of best practise companies (Keogh, 2008). It also allows companies to forecast more frequently due to the summarised level of detail. This supports Barrett (2005).

6.2.3. Focus on Innovation

38% of respondents provided input regarding the greater focus on innovation. Of the 38% who responded, 33% were group managers while 67% were business unit executives.

Two respondents had a strong focus on how an environment of uncertainty was driving innovation. With the nature of business and the environment in which they operate continuously changing, businesses need to find new ways of achieving results. With

information being freely available on the internet, the customer is becoming more educated. The customer profiles are also changing and so are their needs. Businesses need to keep abreast with these changes. Competitors are finding new ways of adding value to the customer. New competitors are emerging from different industries. Mobile operators and retailers are providing banking solutions for customers. These companies have access to a larger customer base and could be strong competitors for banks. This is impacting on business by forcing them to look for new ways of adding value to the customer and differentiating themselves from the competition.

The nature of the discussions during the budget process was changing from the make-up of the financial statements to asking questions on how things can be done differently in order to be competitive. The financial plan is therefore derived from the discussions which are based on questioning the current assumptions and viewpoints.

Contrary to this belief, one respondent argued that innovation should be part of the day to day discussions. It should not be confined to only during the budget process. Businesses should be continuously looking at doing things differently, especially if you constantly trying to drive efficiencies.

It seems like innovation is confined to certain business units during budgeting. It also seemed as though there was no need to innovate at a group level however innovation was more relevant at a business unit level. There has not being an overwhelming response regarding innovation during the interviews. However, there were no questions or discussions which were dedicated towards innovation during the interview. The author feels that although business units should be innovating continuously it is important not to discard

innovation during budgeting. It would be ideal if a business unit had innovation as part of their culture and not consider it as an activity.

One of the respondents who raised innovation as a key theme only used budgets and not forecasts. He also believed that the banks are operating in an environment of uncertainty. This does not support Haka and Krishnan (2005) who state that the use of budgets does not support learning which is required during uncertain times. The use of scenario analysis allows companies to foster a culture of learning which drives innovation (Worthington, Collins and Hitt, 2009).

6.2.4. Focus on Risk Analysis

63% of respondents provided input regarding the greater focus on risk. Of the 63% who replied, 40% were group managers while 60% were business unit executives.

Uncertainty has resulted in an increase in risk analysis being performed. With the negative way in which banks were affected by the uncertainty in the environment, focus is now dedicated to looking into the future with an attempt to identify potential problems. During the stress testing, crisis are continuously being simulated. During these simulations actions plans are also created to address the result of the simulation. In general, the banks' appetite for risk reduced during the sub-prime crisis. One of the actions taken by banks was a tightening in their lending criteria.

It seems like the South African banks response to the sub-prime crisis was to become more risk averse. Besides changing their lending criteria, more time was spent stress testing to ensure that potential problems in the future could be identified earlier.

6.2.5. Alignment to the External Environment

63% of respondents provided input regarding the use of external information. Of the 63% who replied, 40% were group managers while 60% were business unit executives.

The use of external information was becoming more important. From a group level, the focus was primarily on competitor information. This information was used as a basis for benchmarking business units within the bank during the top-down process.

Customer and competitor information was used during the budget process at a business unit level. The reason for the focus on customer and competitor information is similar to the reasons why banks need to innovate. Banks need to look at adding value to customer needs while differentiating themselves from the competitor.

This indicates that these businesses are not operating disconnected from the environments in which they operate. It further indicates that the budget process takes the changing environment into consideration.

One of the criticisms labelled against the use of budgets was that businesses become inwardly focused which results in a stifling of the business to the external environment (Daum *et al*, 2005). The results from the interviews conducted refute this principle as respondents who use budgets take the business environment, including customers and

competition into consideration during the budget process. The use of external information for benchmarking which is supported by Bourne (2005) and Hope and Fraser (2003) was observed in the interviews and specifically mentioned by one bank.

6.2.6. Conclusion

There are a number of changes occurring in the financial planning processes adopted in banks. Changes to the process were observed by the addition of a top-down step in the planning process to incorporate more strategic alignment and to reduce the time during the budget process. The time taken to budget is reduced as there are fewer iterations in arriving at an approved budget. Banks are also implementing forecasting models. The forecasting models are summarised driver based models which allow for scenario analysis and to perform quick impact analysis to changes in the environment. These models also support the top-down process. There was an increase in the focus on risk analysis. This was fuelled by the recent sub-prime crisis and banks are trying to foresee future potential problems. With an environment of uncertainty, innovation is becoming more important. Customer and competitor analysis is increasing. Customer profiles are changing and competition is becoming more aggressive with different industries competing with banks. Banks are finding new ways of doing activities in order to remain competitive. They are becoming more outwardly focused, spending more time analysing the environment in which they operate in.

With the exception of the process change to incorporate top-down planning, uncertainty can be seen as driving all the other changes. There are hints of uncertainty driving the top-

down process as well but that is not as evident as the other changes. With the environment being uncertain, businesses are changing the way in which they previously operated in order to align with the changing environment.

6.3. Research Question 3: Are banks adopting a rolling forecast?

This research question sought to identify whether banks are adopting rolling forecasts in their planning processes. If banks were adopting rolling forecasts, the author wanted to explore whether the banks reaped the benefits of rolling forecasts as indicated by practitioners. If banks were not using rolling forecasts, the author wanted to explore why this was the case.

None of the respondents interviewed used rolling forecasts in their business.

Figure 3 below is a summary of the themes highlighted as to why rolling forecasts are not used.

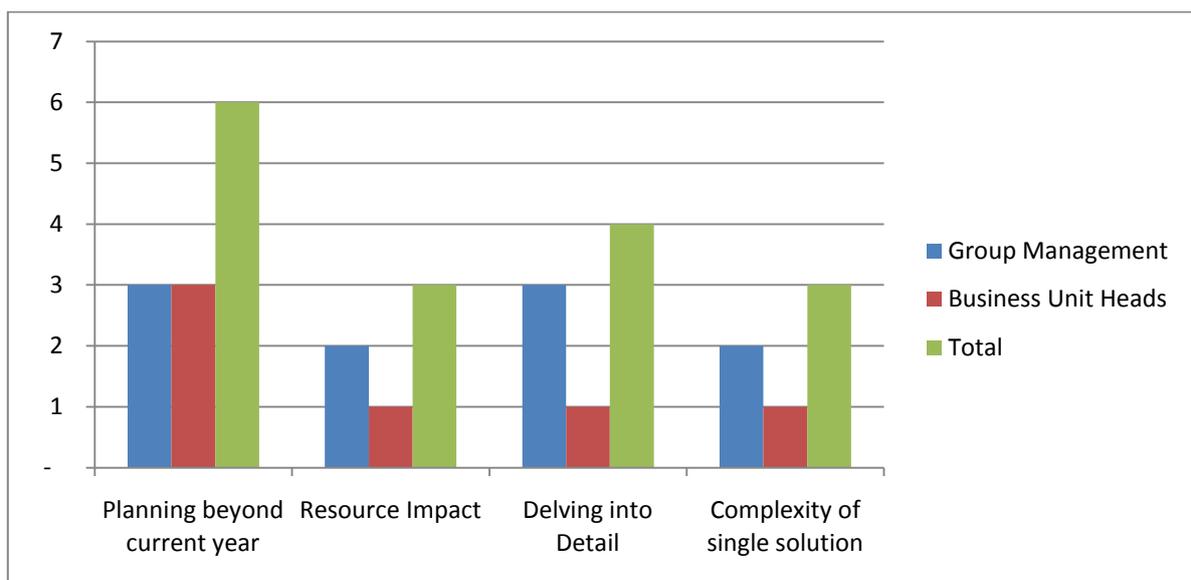


Figure 6: Summary results for research question 3

6.3.1. Planning beyond the current Financial Year

75% of respondents provided input regarding planning beyond the current financial year. Of the 75% who replied, 50% were group managers while 50% were business unit executives.

The respondents state that it is difficult to plan beyond the current financial year. As a result, the focus lies primarily in forecasting the current financial year. This is done at a monthly level. Forecasts are also produced for 3 years at specific planning cycles. The second and third years are forecasted at an annual grain. At a specific time in the year (usually around half way into the year) the focus then shifts into forecasting for the next year using a budget. Respondents indicated that guessing would occur if planning into the next financial year were at a lower grain than annual. Currently, extrapolations are performed from the current year to arrive at the following two years. The argument used for not forecasting beyond the financial year is that beyond the financial year is a long time away and extremely difficult to forecast, especially with the unpredictability of the future due to the uncertain environment.

Business has traditionally operated in financial years. By adopting a rolling forecast, the forecast would extend a set number of periods into the future. As one period completes, the next period opens for planning. As a result, the forecast would not cover the complete financial year. It has being raised that business would find it difficult to relate to an incomplete financial year. It would therefore become meaningless. It was also raised that businesses do not look at the forecast at a lower grain than annual beyond the current financial year. It is more beneficial to ensure that the forecast takes into account any future shocks, rather than to allocate the shocks down to a lower level of detail.

On the contrary, one respondent believed that it would be useful to split the second year of the forecast down to a monthly level. He believed that by planning at a monthly level for the second year, more accurate results could be achieved than for planning only at an annual level. This is because businesses have more control over the month-on-month plans and can change the forecast accordingly.

Overall it appears that planning beyond the current financial year lower than an annual level is not supported by the respondents. This is because it is difficult to plan beyond the current financial year due to uncertainty. Business would not be able to relate to an incomplete financial year.

Practitioners of rolling forecasts do not believe that the end of the financial year is a special period in a business. Beyond the financial year end, business will still continue and needs to be planned for. The behaviour above supports the practitioners understanding of how businesses currently operate.

Tanlu (2008) observed that forecasts made for periods further away are not accurate and tend to be overly optimistic. The result from the interviews ties in with the difficulty to forecast further away.

6.3.2. Resource Usage

38% of respondents provided input regarding the use of resources during rolling forecasts. Of the 38% who replied, 33% were group managers while 67% were business unit executives.

Shortage of resources was one of the issues raised against the use of a rolling forecast by one respondent. It was based on the assumption that the rolling forecast would be completed on a monthly basis and based on existing circumstances. Finance teams (which the respondents viewed as playing a critical role in a rolling forecast process) were fully utilised and did not have available capacity to free up for a monthly rolling forecast process. With headcount freezes and the addition of an extra process to be completed by the existing staff complement, the success of implementing a monthly rolling forecast process was questioned.

It was also feared that a monthly rolling forecast process would turn into a detailed monthly budget process. This was feared because businesses currently operate on the detail. In drawing up a forecast, business would utilise all detail to arrive at a forecast which would be time-consuming and resource intensive. This point also ties in with culture which is discussed in Chapter 6.3.4.

Contradictory views emerged by two respondents regarding the use of resources in forecasting beyond the current fiscal year at a monthly grain. One respondent held the view that forecasting beyond the current fiscal year on a monthly basis would be resource intensive and involve a “massive amount of work”. The second respondent held a view that generating a rolling forecast would improve productivity of staff as it would reduce the amount of time spent during a budget process or when there are changes in the drivers of the business. Before looking at the resource usage which is required for a rolling forecast, the frequency of forecasting and the level to which the forecast goes down to needs to be analysed.

An important point to take into consideration is analysing how the rolling forecast fits into the banks' financial planning process. One needs to look at when the budgeting process begins and what the outlook period for the rolling forecast is. If at the beginning of a budget, a rolling forecast can provide a view of what the complete forecast for the budgeted period is this can significantly reduce the time taken to produce a budget. This would be equivalent to a top-down process or alternatively enable the top-down process. This reduction in time would occur because:

- Businesses would understand what the target for the budget period is
- This would reduce the number of iterations during the budget process

The respondents raise some interesting points relating to resourcing a rolling forecast. Unfortunately it was not possible to draw a conclusion on this point. Future research needs to be conducted to investigate what the resource implications are when using a rolling forecast.

6.3.3. Complexities of defining a common Rolling Forecast

50% of respondents provided input regarding the complexity of implementing a rolling forecast. Of the 50% who replied, 75% were group managers while 25% were business unit executives.

Another issue raised around a rolling forecast was the ability to define a common rolling forecast for the entire organisation. It is difficult to implement a common rolling forecast

solution for the entire bank due to the different requirements at different levels within the organisation. From a group and central retail banking perspective, the purpose of the rolling forecast would be to get a consolidated view of all business units in the bank and retail business respectively. However drilling down to the retail businesses, there were concerns that more detail (an example would be product breakdown) would be requested to derive a rolling forecast. The rolling forecast needs to be designed with a specific purpose. It cannot be a tool which means everything to everyone.

One possible solution is that the rolling forecast should be defined by the group which would contain key line items and ratios. The retail businesses (and all other businesses in the bank) would then have to comply with this model. This principle was supported by a respondent from another bank who has implemented a forecasting model.

The benefit would be that business units would have the ability to create downstream models applicable to their line of business which would feed into the group model. Business units would have complete control of their environments. Business units' ability to control their environment is important, especially in a decentralised business model. In a decentralised business model, group management would not dictate how a business unit should manage their business. This would also apply to the rolling forecast in question.

From the respondents who have implemented a forecasting solution and who would like to implement a forecasting solution, there is agreement that the forecasting model should be dictated by the group while giving the business units freedom to build their own models and integrate them into the group model. This can also apply to rolling forecast. The risk of this option is that it could result in different planning environments being created within one bank. This could result in multiple toolsets been acquired by different business units

resulting in an administrative overhead. Of more concern would be the risk that all business units in the bank would not use common business assumptions in deriving the forecast.

6.3.4. Culture

38% of respondents provided input regarding the change in detail during rolling forecasts. Of the 38% who replied, 67% were group managers while 33% were business unit executives.

The aspect of culture came across quite strongly by three respondents from the same bank. They feared that the organisation is entrenched in detail and would find it difficult to adapt to working with rolling forecast principles of summarised information. The respondents feared that if a rolling forecast is implemented, it would turn into a detailed monthly budget process. The link to a budget process was with regards to the level of detail on which the rolling forecast will be performed on. Although the model would have contained summarised level of detail, the working in the background to populate the forecasting model would go down into detail. There are two reasons why this would happen. They are:

- **Change in planning approach during uncertainty:** Banks revise their budgets on a quarterly basis. In the distant past the outcome of the revision was quite similar to the original budget and used to be a quick revision exercise. In the recent past because of the uncertainty in the environment (due to the sub-prime crisis), the outcome of the revision is completely different to the outcome of the budget. As a result, businesses had to produce the revisions as if it was a budget, from the detail level upwards. Because of this change from quick revisions to a detailed build-up of

the revision, this behaviour could be institutionalised into the business. The detail is where their comfort lies. Therefore the introduction of the forecast would result in a conflict in methods and business units would rely on a detailed process being followed.

- **Business units expect detail questions arising from the EXCO:** There is a fear that business units expect detailed questions arising from the forecast. The detailed questions are expected when the rolling forecast is reviewed by EXCO and they have questions around the make-up of certain lines in the forecast. This is expected as EXCO currently ask detailed questions. When detailed plans are made available by the business, the EXCO has the luxury of asking detailed question. However if the business units feel that detailed questions will be asked, the forecast produced by them will contain the detail to support the forecast.

The respondents realise that in order to implement a rolling forecast, a cultural change needs to happen. The mindset of the bank needs to change from one that is detailed focused to a focus of summary, namely, drivers, key line items and ratios. Not only do the business units need to work on a summarised level of detail, the thought process should also change. The rolling forecast should not only be completed to produce the financials. It is expected to drive people to look forward into the future, to ask questions earlier and drive strategy, future actions, deliverables and future outcomes. An organisation change or even transformation needs to accompany an adoption of a forecast.

Organisational hierarchy is an important dimension to budget related behaviour in power cultures (Goddard, 1997). The managers at the top of the hierarchy would seek to maintain

control of managers and employees lower down the hierarchy. From a forecasting perspective, it could be possible that managers at the top of the hierarchy could demand the detail which is no longer the principles on which forecasting operates. This could create conflict within the forecasting process and compromise the rolling forecast.

According to the Burns and Scapens framework (Scapens, 2006), the actions of organisational actors are based on rules and routines which are shaped by assumptions and ways of thinking. The rules and routines can change over time and will result in a change in the actions in order to adapt to new situations. This change will affect people who are directly involved in the new situation. The new changes could take time to be institutionalised into the organisation. The more widely shared the new changes are, the less conflict would be observed and the quicker the institutionalisation of the new process would be.

It is therefore important to involve all stakeholders in implementing the new process. It is also important to ensure that shared principles are agreed on which could result in a quicker institutionalisation of the new process.

This theme is not only valid for rolling forecasts, but also for any forecast which involves a change in the level information used.

6.3.5. Conclusion

Rolling forecasts were not used by banks in their financial planning processes. Banks plan 3 years into the future. The first year is planned at a monthly level whereas the latter two

years are planned at an annual level. The most overwhelming reason provided for not using rolling forecasts was that it did not make sense to plan beyond the current financial year below an annual grain and not have a complete view of the year. Forecasting lower than an annual level beyond the current financial year is believed to result in a huge amount of work which would need to be performed. This has resourcing implications and will add onto heavily utilised resource workloads.

The challenge in defining a common model to be used throughout the organisation was also raised. Different levels in the organisation will have different requirements. If the rolling forecast resulted in a change in the level of detail accustomed by the organisation, change in culture needs to be taken into account. The organisation would need to change from been reliant on the detail to managing the business on key line items, ratios and drivers. A change in mindset together with new tools needs to be developed in order to operate. There are challenges in defining what the level of detail should be for the rolling forecast. It was suggested that group drive the level of detail for the forecast and have business units align to it.

7. Chapter 7 – Conclusion

7.1.Introduction

This chapter highlights the main findings of the research which was analysed in Chapter 5 and discussed in Chapter 6. The findings will be organised according to the research questions. Recommendations for future research will be discussed.

This research contributes to the theory surrounding budgeting and planning. It provides insights into why rolling forecasts are not used in banks and could possibly extend to other industries as well. It also provides insight into what changes are occurring in uncertain times in the banking industry.

7.2.The business environment in which banks are operating

This research began with the assumption that banks are operating in an environment of uncertainty. The first step in the research was to test whether this assumption was correct. This research used Milliken (1987) framework to identify whether uncertainty exists. Milliken (1987) states that uncertainty can be created when information is either lacking in business environment or on how the environment impacts the business.

Comments were made during the interviews which related to the information present in the environment as well as information on the impact of the environment on the business. No concrete comments could be tied back to the information on businesses response to the environment.

There is a lack of information on how the nature of the environment is changing. There was overwhelming response stating that the environment in which banks are operating are uncertain. Assumptions which are made for budgeting roughly six months before the year become outdated when the year begins. The rate, timing and magnitude at which the business drivers change are difficult to predict. Changes are also occurring in the market where customer profiles are changing and competition is increasing.

There was a mixture of responses on whether information is lacking on how the environment impacts business. There was an overall agreement that businesses know and understand the information required from the environment and how that impacts the business. Two respondents questioned whether all the information is known, especially in uncertainty. As the nature of the environment changes, the impact of the environment on business will not necessarily follow historical trends. It also emerged that the impact of the environment on the credit area of the business was difficult to predict. There was a large disconnect between the forecasted impairment charges and the actual impairment charges.

We can see that there is overwhelming agreement that information is lacking in how the nature of the business environment is changing. There were elements of information lacking on how the environment impacts the business. Based on the lack of the information in the business environment, the author argues that banks are operating in an environment of uncertainty.

7.3. The changes made by banks on the financial planning processes

The following changes which relate to their financial planning process surfaced from the interviews:

- Adoption of a top-down process
- Adoption of forecasting models
- Incorporation of innovation into budgeting
- Focus on risk analysis
- Use of external information

A change from a bottom-up process to combination top-down process followed by a bottom-up process was used during budgeting. This change resulted in strategic decision-making being formally brought earlier into the budgeting process. It also resulted in a reduction in time during the budget process and creation of transparency into costs which are recharged out to business units.

The use of forecasting models was also raised as a change in the planning process. Majority of the respondents (63%) are either using forecasting models or intend using forecasting models in the future. The forecasting models are driver based, and are at a summarised level of detail. They are used to perform impact analysis when changes occur in the environment and to perform scenario analysis. They also enable the top-down process discussed above.

Innovation was also raised as one of the changes in the planning practise. The nature of the discussions are changing from purely discussing the financial numbers to investigating what can be done differently. The outcome of the discussion will result in the financial figures. It is important to note that there was a minority who raised the theme of innovation. However, no discussion points in the interview guideline specifically focused on innovation.

With the recent uncertainty caused by the sub-prime crisis, more focus has being dedicated towards performing stress testing. After a planning cycle has being completed, the plans are stressed across different scenarios. This is to try and foresee future potential problems.

More focus is also spent looking at the external environment. With a change in customer needs and an increase in competition, the external environment is becoming more important in the creation of budgets. Customer and competitor information is primarily used at the business units. It has being noted that competitor information is used at the group level to perform benchmarking and target setting in the top-down process.

7.4.Reasons for not using a Rolling Forecast

None of the respondents use a rolling forecast. However, forecasting models are used. All respondents interviewed have a detailed budget which is produced roughly in the second half of the year. It is then revised on a quarterly basis. During these revisions and the budget process, a 3 year forecast is also produced. The details regarding the forecasting models were explained in Chapter 7.3.

The following reasons state why the respondents do not use rolling forecasts or what the challenges are in implementing a rolling forecast:

- Planning beyond the current financial year
- Resource impact
- Culture impact
- Complexity of a single solution

Currently the second and third years are planned at an annual level. There was an overall view that there is no benefit in planning beyond the current financial year at lower grain than a year. It was believed that the forecast would not be accurate due to the uncertainty. They believed the future to be too uncertain to break it down to a quarters or months. No benefit was seen in planning an incomplete year. They felt that business could not relate to a figure which stops in the middle of the financial year.

Resourcing a rolling forecast came up as an issue. There were conflicting views regarding this. On the one hand it was felt that it would be resource intensive to produce a rolling forecast beyond the current financial year at a lower level than a year. The contrary view was that if the rolling forecast was well integrated into the planning cycle, it could reduce the budget process if the rolling forecast provided a high-level view of the budget before the budget began.

The cultural implication of introducing a rolling forecast also surfaced. The budget is detailed in nature and has been running for a very long time. As a result, business units have established working practises which are now set based on the detail to feed into budgets.

Because the rolling forecast is at a summarised level of detail, the business units would need to change their working practise to accommodate for this.

One of the challenges raised which affects the implementation of a rolling forecast is how to establish a common rolling forecast which could be used through the organisation. Different business units within the bank would have different requirements. In order to get buy in from the organisation, keeping in mind the cultural implication stated above, one would need to identify a common as possible rolling forecast which accommodates all business units in the bank. The suggestion put forward, which is working in one of the banks, is that group define a model and allow business units to build their own models to feed into the group model. The purpose of the rolling forecast needs to be clearly defined in order to ensure the correct usage of the tool.

7.5.Recommendations for Management

Based on the information derived from the interviews, management need to take the following into account:

- When implementing a rolling forecast or any forecast which involves changing the level of detail to what employees are accustomed to, a strong change management component needs to be included in the project.
- The rolling forecast/forecast should provide a directional view of where the organisation is heading. It should not be used to base remuneration on.

- Include a top-down process into your budgeting process to reduce the iterations during the budget process.
- The use of a driver based tool based on rules can provide a quick impact analysis on changing drivers.

7.6.Recommendations for Future Research

There is a wealth of practitioner reviews regarding rolling forecasts; however the author feels that the area of rolling forecasts in the academic field is relatively new as not much academic literature exists.

The following suggested research is listed below:

1. Research to understand how existing financial practises need to change in order to align with the rolling concept of rolling forecasts
2. Research into resource usage at a company who has started using rolling forecasts to understand the resourcing implications
3. It was observed that during uncertainty, the level of detail during budget revisions increased and process assimilated a budget process. Research should be conducted to investigate how uncertainty affects the level of detail used during planning processes.
4. Future research could be conducted to investigate why credit impairment charges are difficult to forecast under uncertainty.
5. Identify the key drivers/line items which should be considered in rolling forecasts to enable good decisions to be made/actions to be taken.

7.7.Conclusion

Business units within banks are making changes to their financial planning processes. This is primarily driven by the uncertain business environment in which they operate. Rolling forecasts are not used; however forecasting models are used which incorporate elements of rolling forecasts. The element of rolling forecast which business units object to is the rolling element. As a result, they always forecast to the end of a financial period.

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9. Appendix

9.1. Appendix 1 – Research Guidelines

1. Provide an overview of financial planning processes. Include in your overview when each sub-process is run and what the purpose of each sub-process is.
2. Discuss the environment in which banks are operating
 - a. State the drivers affecting decision making during budgeting and how often these change.
 - b. How do these drivers affect business?
3. Does your business use rolling forecasts
 - a. If yes, have you reaped the benefits as mentioned by practitioners
 - b. If no, why not?

9.2. Appendix 2 - Consistency Matrix

Research Question	Literature Review	Data Collection Tool	Analysis
Research Question 1: Are banks operating in an environment of uncertainty?	Milliken, 1987	Expert interview	Content Analysis on open ended questions to test the uncertainty construct.
Research Question 2: What changes are banks making to their budgeting and planning processes to align to an environment of uncertainty?	Waweru et al, 2004 Haka and Krishnan, 2005 Ekholm and Wallin, 2000 Neely et al, 2001	Expert interview	Content Analysis on open ended questions to uncover shortcomings in existing planning process.
Research Question 2: Are banks adopting a rolling forecast?	Tanlu, 2008 Waddel and Sohal, 1994 Haka and Krishnan, 2005	Expert interview	Content Analysis on open ended questions to uncover whether banks use rolling forecast; and the benefits/drawbacks if they use; or alternatively why not if they do not use.