

## 8.2 Defining business intelligence

# CHAPTER 8: Summary of research findings

## 8.2.1 Research objective

### 8.1 Introduction

In the preceding chapters of this dissertation, the researcher aimed to describe and explain key concepts related to BI processes, different approaches to dealing with the stages of the BI process, and the application of these processes in SA banking institutions. On the basis of the literature reviewed, the input obtained from the three banking institutions that participated in the research, and the researchers practical BI consulting experience gained in banking institutions, the researcher also proposed specific steps to be considered during each stage of the BI process.

The aim of this chapter is to provide a summary of the researcher's key findings regarding the research problem and sub-problems, as identified in the first chapter of this dissertation.

The first section of this chapter deals with the researcher's findings relating to the research problem and corresponding research objectives, as specified in Chapter 1. In this regard the researcher provides a brief summary of the research objective and research findings contained in Chapters 2 to 7 of this dissertation. Where applicable, the researcher made recommendations and suggested practical steps to be considered for BI assignments in SA banking institutions. In the second section of this chapter the researcher identifies topics for further research.

## **8.2 Defining business intelligence**

### **8.2.1 Research objective**

In order to determine the meaning of the concept 'business intelligence', Chapter 2 focussed on finding definitions for the term 'intelligence', since our understanding of term 'business intelligence' essentially depends on how well we understand the meanings of the terms 'business' and 'intelligence'. Whereas the term 'business' proved to be well defined and easy to understand, various and varying definitions and interpretations were found for the term 'intelligence'.

### **8.2.2 Finding the meaning of 'Intelligence'**

#### **8.2.2 The term 'BI' is widely used, but not clearly defined**

The researcher established that in the military/governmental intelligence community and includes a broad spectrum of intelligence activities under the banner of BI. Proponents of this view view BI as separate or different from Competitive Intelligence. The researcher found that the term 'business intelligence' is widely used within SA banking institutions, and that all the banking institutions that participated in the research maintain and use business intelligence in some form or other. Despite the growing number of opinions expressed around BI, the researcher found that the relevant literature provided few useful definitions of BI.

#### **8.2.3 Confusion over the exact meaning of BI**

Unless it is actionable intelligence cannot add value. In searching for a definition of business intelligence, the researcher found various opinions and definitions in literature and in use within the business community. In the researcher's opinion, this creates confusion as to the exact meaning of the term. The researcher established that various schools of thought existed around the concept of BI. It also became evident that a clear distinction needed to be made between those who express thoughts about BI and those who actually formulate definitions. In this regard it was found that three types of definitions could be discerned, i.e. those that adopt a holistic perspective, those that have a narrow business focus, and those that have an IT perspective. In the researcher's opinion a holistic perspective towards BI is more aligned with the

fundamentals as expressed by the intelligence community and includes a broad spectrum of intelligence activities under the banner of BI. Proponents of the holistic view of BI do not view BI as separate or different from Competitive Intelligence (CI), Customer Intelligence (CINT), or any other forms/types of intelligence, whereas scholars with a narrow focus would argue for artificial boundaries between various forms of BI. As could be expected, the IT suppliers have a strong tendency towards the view that BI is about IT and that BI cannot be conducted without the use of IT.

#### 8.2.4 Finding the meaning of 'intelligence'

The researcher established that in the military/governmental intelligence community, the concept 'intelligence' was clearly defined, and that definitions typically promoted an understanding of the term, rather than add to the confusion. The researcher found that in these definitions:

- A clear distinction is made between information and intelligence, and that unprocessed information is not considered to be intelligence.
- That intelligence output or products can be produced only after an intelligence process has been applied.
- Unless it is actionable, intelligence cannot add value.

#### 8.2.5 A definition of BI proposed

Based on an analysis of the definitions found in the intelligence community and the various views that exist regarding the meaning of BI, the researcher proposed, in paragraph 2.7, that the following definition be used:

*Business Intelligence is the actionable output of a BI system that collects data, information and knowledge and turns it into the intelligence required to*

*conduct business.*

### 8.3.2 A process to produce actionable intelligence

No form/type of intelligence is excluded from the above definition, but emphasis is placed on the importance of addressing intelligence requirements for the conduct of business, whether the business requires intelligence about its customers and competitors, or about external environmental factors. The BI system, as referred to in the above definition, does not imply that it is an IT system. Although IT would play an important part in many BI systems, it is primarily an enabler to allow BI staff members to extract and manipulate information. The BI system referred to in this definition consists of various components of which processes, resources and IT are but some. Ultimately the proposed definition provides a clear definition of BI, which is fundamentally aligned to the definition used by the intelligence community and supports the holistic approach towards BI. Without attempting to use popular business terminology, the meaning of BI is clear: it is the intelligence required to conduct business.

## 8.3 Intelligence processes

### 8.3.1 Research objective

To find an appropriate definition for the concept 'intelligence process', and determine which processes are available to and suitable for use in SA banking institutions. The researcher's findings, based on a study of the relevant literature, are discussed in Chapter 3.

### 8.3.5 Various intelligence processes available

#### 8.3.2 A process to produce actionable intelligence

Various intelligence processes are available for producing intelligence, some of

An intelligence process is a process that converts data, information and knowledge into intelligence output to address the specific intelligence requirements of intelligence users. The purpose of an intelligence process is to produce actionable intelligence output.

Typical examples of these intelligence processes include the intelligence

#### 8.3.3 Triggering the intelligence process

Full, which are retained at the

Typically, an intelligence process is triggered by an intelligence user who needs to deal with a business issue or has to make decisions that require intelligence input. Intelligence processes could also be triggered when BI staff members identify specific intelligence requirements. The output of an intelligence process, also referred as intelligence products, often includes insightful recommendations and intelligence regarding future events.

may not be suitable for use in SA banking institutions. Some of the reasons for

#### 8.3.4 The process typically consists of four to five stages

usually require vast

amounts of resources, and other methods that would be both unethical and

In order to produce actionable intelligence output, various steps or stages of the

intelligence process need to be executed. These usually include four to five

specific stages (as discussed in paragraph 3.3) that include requirements

definition, assessments, collecting of information, analysis, and dissemination

and storage. The omission of any of the stages would impact on the quality of

the intelligence output produced. By not following the stages of an intelligence

process, BI staff members run the risk of not disseminating intelligence products,

but information or intelligence of inferior quality, which could have a negative

impact on business performance. It is more suitable for application in banking as

### 8.3.5 Various intelligence processes available

Various intelligence processes are available for producing intelligence, some of which could be considered for application in SA banking institutions. In this regard it should be noted that those intelligence processes that are typically applied in business organisations are derived from intelligence processes, which were initially developed for governmental or military intelligence purposes. Typical examples of these intelligence processes include the intelligence processes as suggested by Kahaner and Fuld, which are derivatives of the intelligence process used by the Central Intelligence Agency (CIA) and other intelligence services world-wide (see paragraph 3.5).

### 8.3.6 Complex and resource intensive processes may not be suitable

It is important to bear in mind that intelligence processes that were specifically designed for intelligence assignments in governmental or military organisations, may not be suitable for use in SA banking institutions. Some of the reasons for this are that those processes are often complex in nature, typically require vast amounts of resources, and utilise methods that would be both unethical and illegal in the banking environment (e.g. the collection of information through espionage or clandestine surveillance). Furthermore, the development of intelligence products is not the core business of SA banking institutions, but the provision of banking services and products to clients. For this reason only those derivatives of the military intelligence processes that are less complex and resource intensive should be considered and adopted to address the intelligence requirements of SA banking institutions. In this regard the Delta Cycle developed by Farrell, Underwood's Nine-stage Process and the Alpha Cycle (as discussed in paragraphs 3.5-3.6) are probably more suitable for application in banking as

they address certain deficiencies in the CIA-derived intelligence processes and were designed specifically for business purposes.

### **8.3.7 The importance of the intelligence process**

The importance of the process by which information is turned into intelligence cannot be overemphasised. Ultimately, without the application of an intelligence process, intelligence output cannot be produced.

## **8.4 The BI requirements definition stage**

### **8.4.1 Research objective**

In order to determine how important the intelligence requirements definition stage is for the conduct of BI, and how SA banking institutions deal with BI requirements, Chapter 4 focussed on determining:

- The importance of BI requirements definition for the intelligence processes in general
- How intelligence requirements typically originate in SA banking institutions
- The various approaches adopted by SA banking institutions in dealing with BI requirements

### **8.4.2 The importance of requirements definition stage**

The importance of BI requirements definition as part of an intelligence assignment cannot be overemphasised as it is critical to meet the intelligence user's intelligence requirements by producing relevant and actionable intelligence output. Defining intelligence users' BI requirements is typically the starting point for an intelligence process, and as such a critical success factor in

directing the remaining stages of the process. This requires BI staff members to follow a process that assists them in distinguishing between information needs and intelligence requirements, and also in defining intelligence requirements in detail to enable them to plan and execute the various stages of the intelligence process, which follows the requirements definition stage. All the SA banking institutions that participated in this research indicated that BI requirements definition was an important stage and the starting point for their intelligence processes.

#### **8.4.3 Origination of BI requirements**

On the basis of the research undertaken for this dissertation it was established that BI requirements originate in various ways. Often business problems/issues that need to be dealt with give rise to key business questions, which in turn lead to requirements for intelligence. All the SA banking institutions that participated in this research indicated that the identification of business problems/issues and the resulting questions lead to the identification of BI requirements. It was further indicated that BI requirements originate as a result of internal planning and decision-making processes that require intelligence input, and through intelligence users reacting on intelligence products and information bulletins disseminated to them.

#### **8.4.4 Four approaches to deal with BI requirements**

In this research four different approaches typically adopted to deal with BI requirements are identified. Firstly, a reactive approach could be adopted, where intelligence users identify intelligence requirements and request/task BI staff to address these requirements. Secondly, a proactive approach could be adopted, which differs from the reactive approach in that BI staff act on their own initiative



and identify BI requirements without waiting for or seeking input from intelligence users. This often requires that BI staff members need to be able to identify significant issues/trends that would add value to intelligence users. A third approach, the 'trigger approach', is adopted when BI staff members aim to encourage intelligence users to provide them with BI requirements. The fourth approach deals with BI requirements by using a pre-defined BI schedule approach, which allows for the production of intelligence products at regular intervals in accordance with a pre-approved BI schedule. This approach not only assists BI staff to properly plan BI assignments, but also provides intelligence users with BI products at predetermined intervals. All the banking institutions that participated in the research indicated that they used a combination of these approaches, but also indicated a need to become more proactive. Some of the banking institutions seemed to be more inclined to emphasise the reactive approach, while others tended to emphasise the proactive approach, but they adopt the 'trigger' approach and make use of BI schedules.

#### 8.4.5 No specific step-by-step process

Irrespective of the approaches followed to deal with BI requirements, none of the banking institutions involved in the research divulged detailed steps of a formal BI requirements definition process that is typically followed. This prompted the researcher to propose a process for BI requirements definition that moves beyond the identification of requirements to the **definition** of these requirements. Based on the research of Herring and Gilad and Gilad as well as the input obtained during research conducted for this dissertation, the researcher proposed that a BI requirements definition process consisting of five steps should be considered by SA banking institutions during the BI requirements definition stage of an intelligence process.

### 8.5.3 Not all BI sources are listed or optimally exploited

## 8.5 The collection stage

Most quantities of data, information and knowledge sources are available to SA banking institutions to support the collection process during BI assignments. These sources could be classified as primary and secondary sources, internal

### 8.5.1 Research objective

In order to determine how SA banking institutions conduct the collection stage of the intelligence process, the researcher aimed to establish, in Chapter 5, if the banking institutions involved in the research had implemented a BI collection process and, if so, which types of information sources were available and typically used for collection purposes. The researcher also determined how the collection effort was approached and what types of collection processes were applied. Finally, the researcher suggested seven steps to be considered by SA banking institutions for the execution of the collection stage of the BI process.

### 8.5.2 All the banking institutions that participated have implemented a BI collection process

On completion of the BI requirements definition stage of the intelligence process, BI staff members are typically faced with gaps in the data, information and/or knowledge that they require to address the defined BI requirement. The purpose of the collection stage of the intelligence process is not to collect as much as possible information, but to selectively collect data, information and knowledge that will assist BI staff to address the identified BI gaps and ultimately the defined BI requirement. The research for this dissertation indicated that the need for a formal collection process was realised by all the banking institutions involved in the research, as all of them have implemented a BI collection process.

### 8.5.3 Not all BI sources are listed or optimally exploited

Vast quantities of data, information and knowledge sources are available to SA banking institutions to support the collection process during BI assignments. These sources could be classified as primary and secondary sources, internal and external sources, and public and non-public sources. In order to identify and obtain access to the most appropriate BI source/s for collection purposes, BI staff need a list of all the BI sources at their disposal. In this regard the importance of the BI source audit and the development of a collection plan cannot be emphasised enough. The research conducted amongst SA banking institutions confirmed that many BI sources are utilised and that both primary and secondary sources can be of immense value to the collection effort. One of the key findings of this research indicated that some of the participating banking institutions were not exploiting all their BI sources optimally or did not have lists of all the available BI sources. Only one of the institutions confirmed that they had completed a BI source audit and had a list of all the sources at their disposal to support the collection process.

### 8.5.4 'Just-in-time' collection practised

Two fundamental approaches to BI collection were identified in the literature studied. The one approach requires a specific BI requirement to be determined before the collection process is executed ('just-in-time' collection), whilst the second approach is more proactive and emphasises the need to collect information of interest on an ongoing basis. Both these approaches have advantages and disadvantages, but it should be noted that the proactive approach has some resource implications as it requires BI staff members to collect data, information and knowledge of interest without trying to address specific intelligence gaps. The 'just-in-time' approach to collection appears to be

the most practical approach to adopt. Although all the banking institutions that participated in this research indicated that information is collected and stored on an ongoing basis, their collection efforts are linked to addressing information gaps. In order to prevent a situation where irrelevant information is collected and pushed into the BI system, one of the participating banking institutions has built in a comprehensive information 'filtering' process to filter all newly collected information. Not one of the SA banking institutions that participated in this research places emphasis on proactively collecting as much as possible relevant information merely because it may become useful at a later stage.

Based on the literature reviewed by the researcher, a distinction can be made between 'demand paradigm' processes, which are non-linear, e.g. the 'demand paradigm' process, in the linear processes, collection is expected in a

### **8.5.5 Importance of internal collection networks**

All the banking institutions that participated in this research focus on the establishment and maintenance of internal collection networks for the collection of information. Staff members play an important role in collecting information, especially from customers and competitors. Not only BI staff members are utilised as BI 'collectors'; relationship managers or personal bankers are also frequently used as sources for BI purposes, as they are in a position to collect 'soft' information during customer contact. One of the SA banking institutions that provided input for this dissertation, has implemented an incentive programme to entice staff members to collect and share information of value. Although the researcher believes that staff members of banking institutions who are also customers of those banking institutions (internal customers) should be utilised as sources of customer-related information, the SA banking institutions that participated in the research for this dissertation do not appear to exploit this source as part of their internal collection network.

### **8.5.6 Establishment of external collection networks limited involvement of BI staff**

In addition to the use of internal (staff) collection networks, all the participating banking institutions also make use of external collection networks (e.g. business contacts, consultants, researchers or BI companies) to support the internal collection network.

### **8.5.7 Linear collection processes applied**

Based on the literature reviewed by the researcher, a distinction can be made between linear collection processes and those that are non-linear, e.g. the 'diamond paradigm' process. In the linear processes, collection is executed in a step-by-step manner and the intelligence user does not become directly involved in the collection of information or the sources of information. These processes are often criticized as being slow and cumbersome, preventing the optimal flow of collected information to intelligence users. In the diamond paradigm, intelligence users, BI collectors, BI analysts and sources of information communicate directly with one another and information flows freely between these role players. Research conducted for this dissertation indicated that none of banking institutions that participated has adopted a collection process based on the diamond paradigm. In all these banks there is an informal/free flow of information between BI staff members and information sources during the collection process, but not to and from intelligence users. In order to ensure that the collection process is properly managed and intelligence users do not become too involved in the collection stage, two of the participating banking institutions make use of 'BI champions/agents' who also act as collectors and conduits for collection tasks between intelligence users and BI sources. In none of the participating banks, a situation exists where intelligence users actively engage

with BI sources as part of the BI collection process without the involvement of BI staff.

#### **8.5.8 A seven-step process proposed**

The researcher proposes (see paragraph 5.6.2) that SA banking institutions should consider adopting a collection process consisting of seven steps that is more pragmatic than the typical linear approach, yet ensures that the collection process is properly managed without burdening intelligence users during the various steps. In essence, this process emphasises the need to understand the available sources and then planning the collection effort before embarking on collecting data, information and knowledge. In this regard, the process remains true to the fundamentals of collection as practised in the intelligence profession. One of the institutions that participated in the research has implemented a process that includes several of the steps of the seven-step process as suggested by the researcher.

### **8.6 The analysis stage**

#### **8.6.1 Research objective**

In order to determine how SA banking institutions conduct the analysis stage of the intelligence process, the researcher aimed, in Chapter 6, to establish the importance of this stage, the key steps of the analysis process, and the steps followed by SA banking institutions to perform the analysis stage. The researcher also aimed to identify the analysis methods commonly used and suggested a step-by-step process that SA banking institutions could consider implementing for the analysis stage of the BI process.

### **8.6.2 The most important stage of the BI process**

After having collected data, information and knowledge during the collection stage of the BI process, the next stage deals with turning collected material into intelligence. It is during this stage that intelligence is generated, often from disparate information sources. This stage of the process is often viewed as the most challenging and the most important stage of the BI process. In the researcher's opinion, this stage should not be approached in an ad hoc manner.

### **8.6.3 This stage involves more than analysis**

Although this stage of the BI process is often referred to as the 'analysis stage', it should be noted that, in order to generate intelligence, this stage involves not only analysis activities, but also the collation, synthesis and interpretation of information and knowledge. It is also important to note that it involves more than the application of analysis methods.

### **8.6.4 Participating banking institutions focus on analysis methods**

Whereas all the SA banking institutions that participated in the research had realised the need for a formal collection process and have implemented collection processes, the findings of this research indicated that the same did not apply with regard to the analysis stage of the BI process. The researcher found that although BI staff in the participating banking institutions viewed this stage as being of critical importance and had access to analysis methods, and in some cases specialised intelligence systems, a formal step-by-step BI analysis process was not necessarily implemented. In one of the banking institutions, senior BI staff confirmed that although a generic analysis process, which focussed on the

use of specific methods, had been designed, the implementation thereof in the various business units proved to be a major challenge, mainly because of a lack of analysis skills. One banking institution also reported that the analysis process that was being utilised consisted mainly of the steps required to apply the chosen methods of analysis. At another of the institutions extensive use is made of external analysts, who apply their own internal analysis processes.

Output of these methods that is typically used for further BI analysis

### 8.6.5 Analysis methods typically used

8.6.5.1 Too much emphasis on analysis methods

As in the case of collection methods, there are numerous methods of analysis that could be applied during the BI analysis process (see paragraph 6.4). The methods used during the analysis stage are not necessarily restricted to methods that were designed with intelligence analysis in mind, and many of the analytical methods used for intelligence analysis are not indigenous to the intelligence professions, but originate from a variety of disciplines that include strategic planning, market research, futures research and other social sciences. The methods used for BI analysis purposes can be classified as qualitative, quantitative and hybrid methods. Because intelligence analysis is more than just information analysis, summarisation or synthesis, and includes interpretations, predictions, judgements and conclusions, qualitative analysis methods are usually applied during this stage of the intelligence process. The researcher believes that BI staff should ensure that, when appropriate, both quantitative and qualitative analysis methods should be applied in the analysis stage. In the case of the SA banking institutions that participated in the research, the most commonly used analysis methods applied included hypothesis generation, SWOT analysis, 5 Forces and value-chain analysis. In addition to the above methods, one of the participating banking institutions also uses both network and timeline analysis. It was established that two of the banking institutions view wargaming as an important analysis method, whereas the other uses this method,



but does not deem it to be of particular significance. In one banking institution it was envisaged that war-gaming, should be used by BI staff for analysis purposes at the business unit level, and that the output of all the business unit war-gaming exercises should be integrated at corporate level. The use of data mining and multidimensional modelling was found to be important quantitative methods, but the participating banking institutions indicated that it was the output of these methods that is typically used for further BI analysis.

#### **8.6.6 Too much emphasis on analysis methods**

The researcher believes that a BI analysis process that consists merely of the application of various methods could have disadvantages in that the application of methods becomes the core steps/activities of the process. The researcher therefore suggests that an analysis process be considered during which appropriate methods are identified and applied, but that, after application, specific steps be followed during which emphasis is placed on the integration and interpretation of the output of the analysis method and other relevant information.

#### **8.6.7 Importance of BI analysts**

The researcher would like to emphasise that, even though there are various ways of dealing with the analysis stage of the BI process and numerous methods and models available to assist BI staff with this stage, these do not guarantee that information will be turned into actionable intelligence. Of critical importance is that BI staff members trained as BI analysts should follow a step-by-step process that places particular emphasis on the interpretation of the information that was analysed and synthesised. Ultimately, it is the BI analyst that plays a pivotal role in ensuring that quality intelligence is generated during this process,

even though technological advances may create the impression that the analysis, synthesis and interpretation steps could be automated with IT.

## **8.7 Dissemination of BI products**

### **8.7.1 Research objective**

In determining how SA banking institutions disseminate BI products, the researcher aimed, in Chapter 7, to establish how intelligence dissemination should be approached, which methods are typically used, and in which formats BI products are typically disseminated.

### **8.7.2 No formal process followed**

As in the case of the analysis stage of the intelligence process, the researcher found that a formal step-by-step BI dissemination process was not necessarily followed by the SA banking institutions that participated in the research. The researcher therefore recommends the adoption of a five-step dissemination process that placed particular emphasis on quality assurance and alignment with the intelligence user's defined BI requirement.

### **8.7.3 Final stage of the intelligence process**

Often described as the 'moment of truth' and the final stage in many BI processes, the dissemination stage is not less important than the preceding analysis stage. After having turned data, information and knowledge into intelligence during the analysis, this intelligence output needs to be disseminated to intelligence users in order to complete the BI process. This research established that the dissemination stage can be described as consisting of two processes. The first process aims to add value to the output of the analysis and

synthesis stage of the BI process by doing further synthesis and packaging the intelligence in an intelligence product format. The second process involves communicating the intelligence product to intelligence users. The purpose of the dissemination stage of the BI process is to provide the right intelligence product to the right person in the correct format, exactly when and where it is required. The researcher is of the opinion that if the dissemination of BI products is not effectively orchestrated, the value of the whole BI process will be negatively impacted.

#### 8.7.4 Various approaches used to deal with dissemination

Some of the typical BI dissemination approaches include the 'push/pull' approach, the use of predetermined BI programmes, and BI product hierarchies. All three banking institutions that participated in this research use a combination of the 'push' and 'pull' approaches. In one institution there is a strong emphasis on limiting the 'push' approach in favour of the 'pull' approach. In this case, those BI products that are typically compiled on a monthly and quarterly basis are 'pushed' to intelligence users. In contrast to this, the same institution stores the daily/weekly current intelligence reports in an intelligence database, which requires intelligence users to pull intelligence from the database daily. In order to support the 'pull' approach, all the participating banking institutions have intelligence/knowledge databases that are accessible through their corporate intranets. Two of the banking institutions involved in the research have purpose-built intelligence systems to support their intelligence processes. In one of the banks, a process was implemented that alerts intelligence users according to their interest profiles when new BI products are available in order to facilitate a 'pull' approach.

### **8.7.5 BI product hierarchies are commonly used**

#### **8.7.5.1 Reports and BI briefings used in conjunction with each other**

As it is uncommon to find that a single type of intelligence product fits all the needs of intelligence users, a hierarchy of intelligence products is often used to disseminate intelligence. Typically, such an intelligence hierarchy consists of various types of BI products suited to different purposes. Generally one can distinguish between BI products that are time based (disseminated at specific intervals) and those that are topic oriented. The researcher established that although there are some differences in the types and formats of BI products disseminated in participating banking institutions, similarities exist in respect of the time-based BI products. A typical example is that of BI reports/briefings regarding competitor activities and market trends that are usually disseminated on a monthly and quarterly basis in the participating institutions.

In the case of two of the banking institutions that participated in this research, the institution obtains BI products from third parties on a weekly, monthly and

#### **8.7.6 Methods of dissemination**

Some of the most common forms used for the dissemination of intelligence output are printed and electronic intelligence reports, BI forums, BI briefings, on-line access to intelligence products, and intelligence exhibitions. In the SA banking institutions that participated in this research, BI reports in both printed and electronic form are widely used to disseminate intelligence. In one of participating banking institutions, BI forums are used to discuss and disseminate intelligence products on a monthly basis, whereas in the other two BI briefings are widely used as method to disseminate intelligence, often in conjunction with the dissemination of BI reports. The research further established that, in addition to the above dissemination methods, all the participating banking institutions provide on-line access to intelligence users to enable them to access BI products. None of the SA banking institutions that participated in this research had used intelligence exhibitions for BI dissemination purposes.

formal, exactly when and where it is required. Failure to properly execute this

**8.7.7 Reports and BI briefings used in conjunction with each other**

but not necessarily acted upon by intelligence users, which in turn could result in the

Typically, intelligence output is disseminated in report and/or briefing formats. It is not uncommon to find that a BI product is disseminated in both formats to ensure that the message is conveyed to the intelligence user. In the SA banking institutions that participated in this research both formats are used in conjunction. All the SA banking institutions that participated in this research make use of standardised BI product formats, some of which can be adapted to suit the requirements of intelligence users when needed.

After successfully completing the dissemination stage of the intelligence process

**8.7.8 Disseminating 'third party' generated BI products**

could find themselves back in the first stage of the BI process, having to deal

In the case of two of the banking institutions that participated in this research, extensive use is made of external parties to generate BI products. In one case, the institution obtains BI products from third parties on a weekly, monthly and quarterly basis. In another case, industry reports are commissioned from intelligence/information providers at regular intervals. These third parties are typically not directly involved in the dissemination process and internal BI staff members are responsible for ensuring that these products are disseminated to the relevant intelligence users.

financial services industry (e.g. insurance and investment banking)

**8.7.9 Failure to disseminate properly could lead to the failure of the BI assignment**

determining how these processes differ from the process and

support the work of SA banking institutions

The five-step dissemination process proposed by the researcher in paragraph 7.6, places emphasis on appropriate packaging, quality assurance and alignment of BI products to the BI requirement before delivery. This process can assist BI staff in providing the right intelligence product to the right person in the correct

format, exactly when and where it is required. Failure to properly execute this process could lead to a situation where BI products are disseminated, but not necessarily acted upon by intelligence users, which in turn could result in the failure of the BI assignment. Ultimately the success of the whole BI process is measured in terms of whether or not the intelligence disseminated was used and, if so, what impact the use of BI had in terms of the organisation's business performance.

#### **8.7.10 Identification of new BI requirements**

After successfully completing the dissemination stage of the intelligence process and once intelligence users have acted on the intelligence products, BI staff could find themselves back in the first stage of the BI process, having to deal with newly identified BI requirements.

#### **8.8 *Proposals for further research***

Based on the findings that resulted from the research done for this dissertation, the researcher identified a number of areas in which further research should be conducted. These including the following:

- The application of intelligence processes in other areas of the SA financial services industry (e.g. insurance and investment banking)
- The application of intelligence processes in other industries within SA, and determining how these processes differ from the processes and approaches used by SA banking institutions.
- Determining which industry in SA is the most mature with regard to the application of intelligence processes
- Determining the SA IT industry's views on the researcher's opinion that IT constitutes only one component of a BI system and supports only specific

#### BIBL steps of the BI process

- Determining if there is a growing awareness and appreciation amongst SA business leaders of the business value generated by the application of BI processes.

### 8.9 Conclusion

BI processes provide a critical framework for the conduct of BI assignments. They ensure that each intelligence assignment is executed in a number of stages, each stage focussed on addressing the intelligence requirement as identified by the intelligence user. While the typical four/five-stage intelligence process is commonly accepted as a benchmark for the conduct of intelligence, BI staff members tend to underestimate the steps and associated tasks involved in executing these stages of the BI process. As was pointed out in this dissertation, the steps involved in executing these stages may be more complex and resource intensive than is often anticipated, and should not be approached in an ad hoc fashion.

By following a step-by-step approach, BI staff members in SA banking institutions can ensure that they focus their efforts on generating quality intelligence output. The researcher is of the opinion that the SA banking institution that has the most effective BI process and has the will and capabilities to exploit the intelligence output generated by this process will ultimately be the most successful with its business initiatives.