



Contact Centre MIS An Overview

Author	Christopher Mills
Contact No.	+27 83 653 2992
Date	8 February 2004
Version	V1.0

Table of Contents

1.	Introduction	3
2.	Background and History	4
2.1.	What are MI and MIS?.....	4
2.2.	The Importance of MI and MIS	5
2.3.	The Flow of Information	7
2.4.	The History of MIS	9
3.	MI in Contact Centres	10
3.1.	Users of MI in the Contact Centre	12
3.2.	Setting Appropriate Performance Metrics - Balanced Scorecard Methodology .	13
3.3.	Contact Centre Performance Metrics	15
	3.3.1. Operational Performance Metrics	16
	3.3.2. Tactical Performance Metrics.....	17
	3.3.3. Strategic Performance Metrics.....	18
3.4.	Principles of Effective MI	19
4.	What is Quality MIS?	20
	4.1.1. Quality Content Dimension	20
	4.1.2. Quality Form Dimension	21
	4.1.3. Quality Time Dimension	21
5.	Summary and Approach	22
6.	References	24

1. Introduction

In his book, *Competing Through Value Management*, Tony Manning (Manning, 2003) states that facts help us make up our minds. However, these facts can only be substantiated through information that needs to be specific and measurable. Manning (Manning et al, 2003) goes on to say that commonly used metrics can often encourage stupidity and selfishness. This kind of thinking is focussed on short-term payoffs. In order for information to play a key role in your business you should be thinking 'out-of-the-box' and measuring areas that add the most value and matter most to the success of your company.

Contact centres are increasingly placed under pressure to deliver value to the business, but are often seen only as cost centres. This view is based on the challenge of effective communication and measurement, which is often blurred by delivery. Managers make decisions on a daily basis that impact the contact centre at all functional levels (Human Resources, Finance, Operations, etc.). These decisions could result in a growing and sustainable business, or cause the business to fail. It is therefore imperative that we measure the correct performance metrics to ensure quality information is supplied, thus supporting informed decision-making. It is said that if we can measure it, we should be reporting on it. Is this an acceptable method of establishing your contact centre's performance? Will an executive committee be interested in multiple individual performance measures or in a comprehensive, relevant view of the business' performance?

These are some of the questions that will be addressed in this document. In addition, we will establish what contact centre management information (MI) is, and what information to report on at each management level (Operational, Tactical and Strategic).

As companies continue to focus on customer retention and growth, they will require quality information that will assist the managers to make informed decisions that will positively impact the business. Management information (MI) should be an initiator for change. Knowing the when?, where?, why? and how? of MI is imperative in this rapidly changing world. As stated by Tony Manning (Manning et al, 2003) it is imperative that the connection is made between goals, action and the payoff. It is within this arena that the Management Information Systems (MIS) team should provide quality information that can initiate change that will positively impact the business if used properly.

2. Background and History

2.1. What are MI and MIS?

We begin by exploring information and information systems (IS). **Information** in its rawest form is data from various internal and external sources. In a contact centre, data would consist of raw facts such as the number of calls received between 8 a.m. and 9 a.m. On its own, data has very little meaning, but when grouped together and analysed, it supplies management with valuable information. If we now group the calls received between 8 a.m. and 9 a.m., and include the number of abandoned calls during this period, plus staffing capacity during this time, we come to a more relevant view of “demand vs. capacity”.

Information can be defined as “a collection of facts organised in such a way that they have additional value beyond the value of the facts themselves” (Stair, 2001: 593). Simply put, information is collating raw data into a more meaningful and understandable form. However, this is not the end of our task, as without proper understanding and interpretation of the information by the user, there is no knowledge. Knowledge is the reaction to a collection of information that impacts the business. Business decisions should be based on knowledge and could be a key business differentiator for an organisation.

An **information system** (IS) can be defined as “any organised combination of people, hardware, software, communication networks, and data resources that collects, transforms, and disseminates information in an organisation” (O’Brien, 2002: 7). It is important to note that an information system does not consist solely of technology but incorporates people and raw data. These resources interact together to achieve a single goal by accepting inputs (e.g. ACD statistics) and producing outputs (e.g. Management reports) in an organised transformation process (e.g. Analysis and interpretation).

In taking the outputs of the IS and producing pre-specified reports, displays and responses at various intervals (periodic, exception, demand and push basis), we extend our IS to a **management information system** (MIS) that provides customised information to support the managerial decision-making process.

We conclude that management information (MI) is raw data that has been extracted, analysed, interpreted and disseminated, providing management with the ability to translate relevant data into MI that can be used in making knowledge-based decisions. **Figure 1** illustrates this data transformation process.

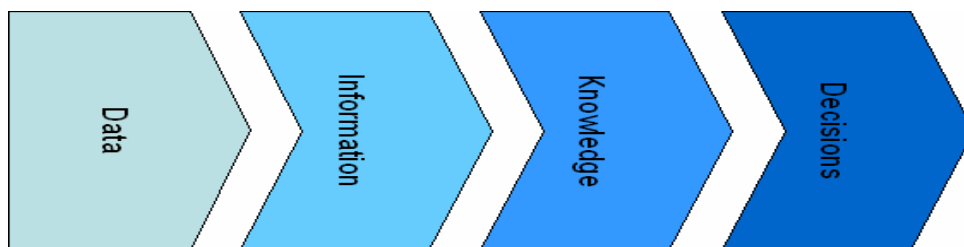


Figure 1: The Data Transformation Process
(Source: Paladin Consulting)

2.2. The Importance of MI and MIS

A manager must fulfil a specific role in a business irrespective of the level at which he / she operates. There are approximately ten generic roles that are fulfilled by managers - they can be grouped as follows:

- Interpersonal role
- Decision-making role
- Information role

The information role requires managers to gather information that will support their decision-making role from internal and external sources. Managers are required to gather information relating to change, opportunities and threats that may affect the business. The management team forms part of the communication process by analysing information and passing the relevant facts on to the appropriate stakeholders (Cronje. 2000).

MI plays a vital role in organisational decision-making and problem-solving. Historically, decisions and problems were addressed in a clearly structured puzzle-like manner and were well within the range of thinking at the time (Simon, 1986). However, with the changing economy of the current era, influenced by the introduction of the Internet, increasing demands of the consumer and a highly competitive market, these decisions and problems have now become far more complex and often require immediate attention. These problems need to be pro-actively identified to prevent the traditional 'fire fighting' approach by using quality management information that allows preventative measures to be taken. As is often said amongst management teams, "prevention is better than cure".

MI in the contact centre environment reflects the performance of the channel at various levels and is the lifeblood of any decision-making process. Operationally, management will find it difficult to make a decision about right-sizing the agent capacity without having the validating information available at their fingertips. Similarly, at a strategic level, management requires substantiating information to make knowledge-based decisions about the positioning of the contact centre as a delivery channel. Information accuracy is essential to ensure that the correct decisions are made and can ensure the ongoing success of the business. Inaccurate information can damage a business and can, in certain instances, result in financial loss.

In order for organisations to remain competitive, they need to meet the changing needs of the customer / client. It remains a constant challenge for businesses to find a balance between the right interaction channel per customer segment and the cost of providing a differentiated service offering. It therefore becomes imperative that management receives specific, accurate and relevant information in order to better understand both the contact centre as a channel and the related business activities.

Management information not only supports the decision-making process but also provides management with a view of the day-to-day performance of the contact centre business activities. This information can be used as an enabler in making immediate or short-term decisions, but is often a performance snapshot that enables management to operationally manage the contact centre. The performance snapshot provides valuable information on individual business unit

activities. **Figure 2** illustrates an example of an MIS in a financial institution, and the required MIS for Card Division, Telephone Banking and Collections. The relevant information is extracted from all appropriate data sources such as the customer data warehouse. Managers are able to manage the day-to-day operations while also having the information to measure the performance and impact of improvement initiatives.

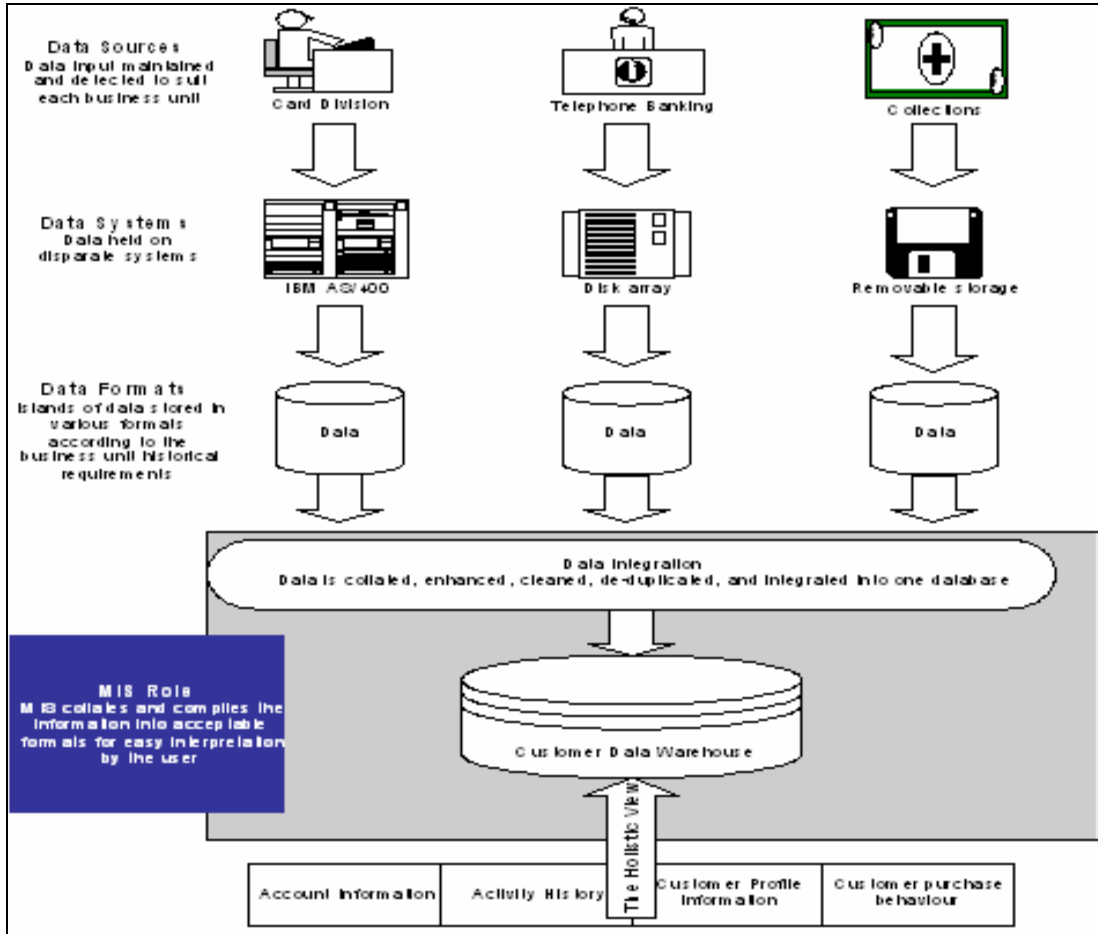


Figure 2: An MIS in a Financial Institution
(Source: Paladin Consulting)

The implementation of a data warehouse solution will give managers the information and the ability to monitor trends and learn from experiences, not only in the contact centre environment, but also as regards customer behaviour.

2.3. The Flow of Information

Information moves through various stages from a data source, through a process combining relevant inputs, to an output. This is referred to as the "information flow". **Figure 3** illustrates a generic model of information flow.

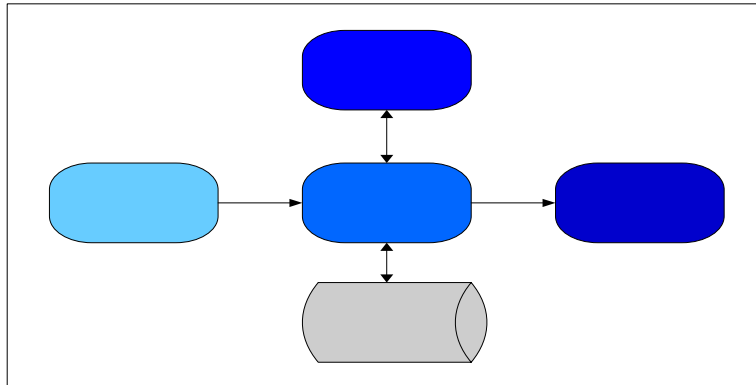


Figure 3: The Information Flow in an MIS
(Source: Management Information Systems, J.A. O'Brien, 2002)

Input refers to the data and information extracted from the various sources. Processing entails the collation of input into a form that is easy to read and understand, and may include graphical representations of the information. Processing also combines inputs to make them relevant and to generate the appropriate information. Output occurs in the form of reports delivered to managers, decision-makers and clients. For comparative purposes, trend analysis and future reference, the outputs should be stored in a centralised and easily accessible data warehouse. At all times, the standard and quality of information should be controlled and managed, ensuring that the information is relevant to its expected purpose.

Data sources can come in various forms and shapes across the organisation with some being manual, some automated, some easily captured and some difficult to capture. The source of information will depend on the MI requirement and purpose. **Figure 4** indicates possible information sources for MIS.

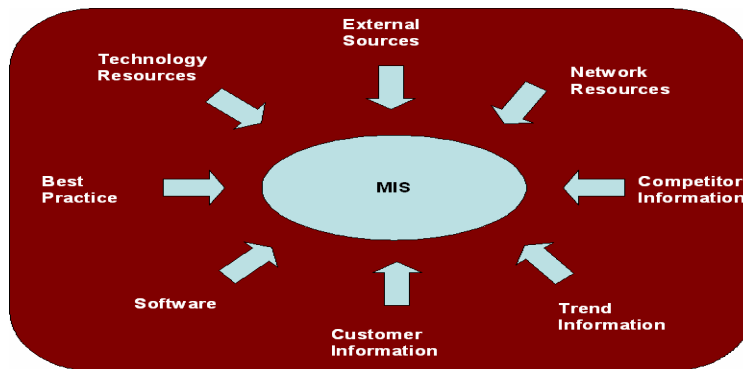


Figure 4: Information Sources
(Source: Adapted from Management Information Systems, J.A. O'Brien, 2002)

Information in a contact centre environment flows through the same process as is illustrated in **Figure 3**. The 'Input' data is obtained from various information sources such as an automatic call distributor (ACD) or a customer database. Management at various levels require information that relates to their specific needs and do not want to sort through masses of unnecessary information. The information supply must match the user need to ensure a smooth transition of information flow.

Processing in the contact centre requires the analysis of the information extracted from the sources, providing value beyond the information itself. In the instance of an ACD this could include using the contact handling time to calculate agent productivity. This stage should be largely automated.

The Output reports should be formatted according to the balanced scorecard methodology to provide additional value to the management team, and can be represented in Excel or an automated reporting system (e.g. Crystal Reports). This Output information can be distributed via email or be stored on an Intranet on an MIS web page.

2.4. The History of MIS

Before the 1960s, information systems consisted mainly of simple transaction process and record keeping systems. During the 1960s, referred to as the Information era by Rolf Jensen (Jensen, 1999), applications were being designed that provided static reporting to managers that would assist them in making decisions. It became more important to understand factors such as production and resource planning, allowing managers to better plan for and control their departments.

By the 1970s, it was evident that the pre-specified production reports were no longer sufficient to cater for the managerial decisions required in the information era. It was then that concept of “decision support systems” was born. The new role of IS (now MIS) was to provide not only structured but also ad hoc and interactive support to the managerial decision-making process. MIS was directed more at the unique requirements of the managers, and was adapted to cater for specific types of problems, supplying pertinent and quality information related to these problem areas.

With the development of technology in the 1970s and 1980s came rapid development in MIS. Users were no longer dependent on the corporate information services for MI, as departmental information was available on a real-time basis. It also became evident that executive level managers could not really utilise the generic MI reports being distributed - they required critical information that addressed their individual needs. It was then that the concepts of executive information systems, expert systems and knowledge-based systems were conceived. These systems were developed to cater for the delivery and analysis of specific information relating to very specific problems, in an effort to better support the decision-making process with accurate information.

In the 1990s, further enhancements to the already well-developed executive information systems and knowledge-based systems occurred in the form of strategic information systems. In this concept, management information systems became an integral component of the business, and assisted a company in gaining a competitive advantage. The growth of intranets and Internet globalisation quickly swept through the business world, creating additional demand for quality MI to be provided at all management levels, thus ensuring the growth and sustainability of a company through informed and knowledge-based decision-making.

Although all these systems were customised for specific use, they still fell within the realm of management information systems. As the MIS developed, it became more evident that managers at various levels require MIS that is specific to their role in the organisation. Similarly, in the contact centre world the information supplied to Team Leaders will differ from that supplied to the Call Centre Manager.

3. MI in Contact Centres

As previously mentioned, MIS is used in contact centres to measure and report on the operation's performance. This performance is based on specific and measurable metrics across various data sources. These performance metrics should be compared against service level agreements (SLAs) and key performance indicators (KPIs), as agreed with the relevant business units. For example, the operational KPIs of a contact centre SLA could include metrics such as:

- Call answering service level (80% in 20 seconds)
- Quality assurance ratings (Target 90% and higher)
- First Call Resolution (Target 80% and higher)
- Lead generation (Operation Target of 500 qualified leads)
- Lead-to-sale conversion rate (30% conversion of all leads)
- Call abandon rate (Less than 5%)
- Email response times (Subject to priority and severity ratings)

Similarly, the contact centre mid- and top-level management could measure the contact centre performance against performance metrics such as:

- Operating budget vs. actual costs
- % Employment equity achievement
- Cost per contact
- Cost per call
- % Operations achieving agreed service levels
- Total contacts handled per contact type (fax, email, web chat, voice, etc.)

It is important to note that in general practice performance metrics are all measured on a monthly average basis. These performance metrics guide the contact centre towards becoming an effectively managed business, delivering on the agreed SLA. These performance metrics could be further utilised to implement a reward and recognition system for top individual and team performers, based on pre-defined targets.

MIS is used in contact centres to measure performance at all levels and across all areas of capability. These include technology, process, people and information. From a people capability perspective, performance metrics could range from individual agents, teams, service areas or business units to overall contact centres. It is imperative that these performance criteria are documented and agreed upon before operational go-live. It is also vital for individual performance management to set goals that will give individuals a target to aim for while identifying areas of strength and areas of improvement. This in turn will supply input to the individuals' personal development plan.

Although not often viewed as performance criteria in many contact centres, technology plays a big role in the ability of the operations to deliver according to their SLA. For example; system downtime could result in customer transactions not being processed in a timely manner, and could result in financial loss (particularly in the case of foreign exchange involvement), and create dissatisfied customers.

An area of capability that has a direct impact on the operational performance is process efficiency. By optimising and measuring processes, the contact centre could reduce the average handling time for contacts. In some instances, this may involve automating certain processes. These efficiencies have a direct impact on the cost per call minute and cost of handling a customer contact. This in turn will influence the capacity forecasting, and provide a measurable metric for project enhancement initiatives.

The information capability area does not just relate to figures and telephony-based data; it should also include customer data. According to Joanne Krotz (Krotz, 2003) having smart, deep, integrated information about your best customers can enable the contact centre to:

- Cross-sell or up-sell additional offers and products
- Communicate with customers using the medium they prefer — fax, email, phone, letter or, in some cases, not at all
- Package or bundle services that are a natural fit with your primary product
- Expand into other products that you know your customer will definitely want, etc

A contact centre has customers, clients, budgets and targets just like any other business and therefore needs to be managed as a business. MI therefore plays a key role in managing this 'business', enabling the management team to:

- Manage the operation
- Set goals and objectives
- Manage costs and returns
- Manage resources (technology, people)
- Manage process efficiencies
- Acquire learning to develop and enhance the service offering
- Identify and close gaps that may exist
- Improve the business' performance
- Manage the investment in technology, people, process and information
- Implement improvement initiatives
- Identify market trends
- Effectively communicate key successes of the contact centre

The value that quality MI in contact centres adds to the overall business is endless. MI plays an influential role; from measuring individual KPI achievement, to assisting executive management in making decisions about the strategic direction of the contact centre as a customer interaction channel.

3.1. Users of MI in the Contact Centre

Everyone in an organisation should use MI in some form or another, for example: Team Leaders view individual agent performance reports encompassing quality ratings, calls answered, first call resolution rate and other such metrics; a Line Manager should review the overall quality rating for the respective operation and possibly the overall customer satisfaction ratings. The MI users and decision-makers are categorised according to three distinct levels of management, as follows:

- Strategic Management
 - Generally consists of executive management and directors
 - The decisions made relate to the long term and impact the organisation's future
 - These managers require information that will support decisions about competitive differentiation, innovation, organisational growth or channel optimisation
 - MIS needs to support the overall business strategy and objectives
 - An example of MI required: What role does the contact centre play as a channel for the customer in the banking industry?

- Tactical Management
 - This level of MIS generally supports the business unit management layer such as Human Resources Managers, IT Managers or Facilities Managers
 - These managers and decision-makers are focussed on the medium term
 - The information they require must support their unique decision-making requirements about implementation of the business strategy within their area of responsibility
 - An example of MI required: How can the contact centre ensure maximum utilisation of their seats at the best possible cost?

- Operational Management
 - This management layer generally requires operational management information and in the case of contact centres includes the requirements of the Team Leaders and Supervisors.
 - These managers and decision-makers are focussed on the short-term decisions that impact the immediate business operation
 - This group of decision-makers requires information that supports the day-to-day operations of the business
 - An example of MI required: How does the performance of the contact centre agents compare to the pre-defined KPIs and targets?

3.2. Setting Appropriate Performance Metrics - Balanced Scorecard Methodology

The “balanced scorecard” methodology started as a method of measuring the strategic outcomes of a business. According to Kaplan, many organisations were only using their strategic documents (consisting primarily of lists of programs and initiatives) as measurement tools, without taking into account the outcomes that the organisation is trying to achieve (Kaplan, 2001). Most organisations include “what must be done” in their strategies, but few actually cater for the “what must not be done”. Many of the existing contact centres actually adopt the approach of using a balanced scorecard to measure their performance. Those that do, cater for operational excellence with the focus on reducing costs, improving first call resolution and doing it faster than their competitors do. It is only recently that contact centres are focussing on product leadership and customer intimacy, and how the contact centre as a channel can contribute to the success of the business and grow the company’s market share.

In order to effectively measure and report from a strategic perspective, the balanced scorecard has been adopted by a growing number of businesses. The purpose of the balanced scorecard is to provide management at various levels with a single view of the business (in particular, contact centre performance) from the following perspectives:

- Financial perspective
- Customer perspective
- Performance perspective
- Human resources perspective

All balanced scorecards should relate back to the overall mission of the business. This, after all, is the reason for the business’ existence. The generic balanced scorecard perspectives need to be adjusted for the various business operations, i.e. a non-profit organisation will not have the same balanced scorecard approach as a financial institution.

Figure 5 (overleaf) reflects at a high level how each area of the balanced scorecard relates back to the mission of the business.

Management requires a consolidated view where similar metrics are reported on for each management level. Scorecards should cater for management at each level, reporting with specific information that relates to the KPIs of the manager’s department or operation. In turn, this information should roll-up to a strategic level, summarising the overall performance of the contact centre in a snap-shot balanced scorecard.

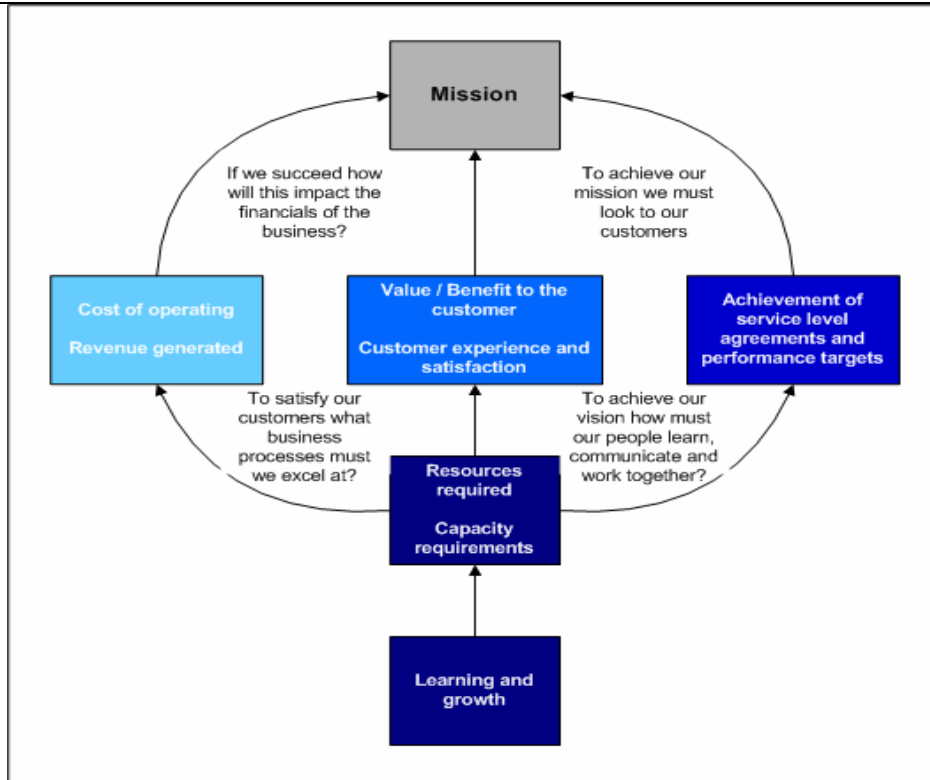


Figure 5: The Relationship between Balanced Scorecard and Mission
(Source: Adapted from: The Strategy Focused Organisation, R.S. Kaplan, 2001)

Figure 6 (below) provides an example of the MI at each management level.

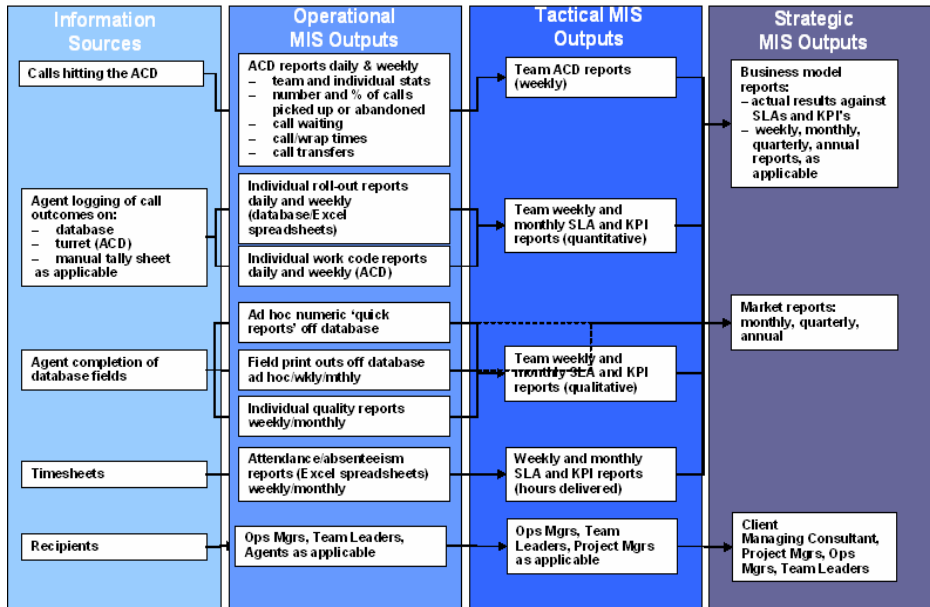


Figure 6: An Information Flow in the Contact Centre
(Source: adapted from Dimension Data CIS Consulting)

3.3. Contact Centre Performance Metrics

So far, we have discussed the information flow, the various management levels, and the focus areas. The topics all interrelate in a quality MIS. Data is received from the various sources (Input), is then analysed (Processing) and compiled into MI that is relevant to each management level (Output). As previously mentioned, the user-groups have different management views. While the strategic level looks at the longer term and often requires ad hoc information, the tactical level looks at the medium term, and the operational level has a short-term management view with structured and pre-defined reporting formats and metrics. In all cases, this information should be stored in a centralised data warehouse (Storage) that will allow for trend analysis, learnings and projections. **Figure 7** provides a graphical depiction of how the MIS relates to the various management levels and the flow of information.

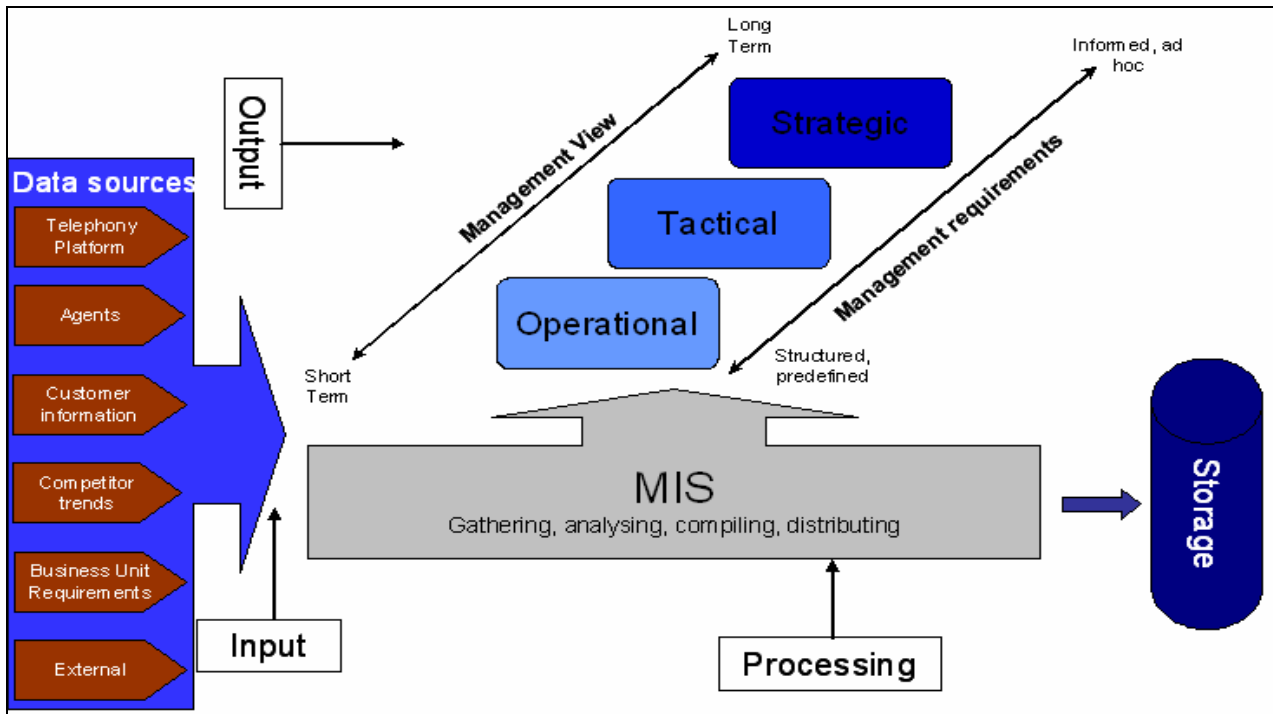


Figure 7: The MIS Process
(Source: Paladin Consulting)

The contact centre environment is unique in that it not only interacts with customers verbally, but is also often required to interact via written communication as well (email, web chat, facsimile, etc.). In addition to having direct contact with the customer, the contact centre also interacts with the majority of back office / administrative departments, and generally completes an end-to-end process in order to assist the customer. As the contact centre covers all aspects of the business environment (Financial, Customer, Performance, Human Resource) it is one of the most measured in any business. Due to the technology that resides in the majority of contact centres, managers have the ability to measure almost every aspect of the contact centre performance. This ranges from individual agent activities to financial budgeting. To better understand the balanced scorecard perspectives, we will review each of the areas.

The **Financial perspective** provides a management view of the key aspects that impact the commercial side of the contact centre. This could include operating budgets, revenue generation figures or cost per call minute. This perspective should enable the effective management of the contact centre finances and highlight issues that need to be addressed (e.g., actual operating expenses exceed operating budget). In addition, it should provide management with a view of financial resources that are available for new project initiatives.

The **Customer perspective** summarises all the key focus areas that impact the customer, such as quality, customer satisfaction, compliments / complaints and achievement of service levels. These are all criteria that could determine the level and amount of contact centre interactions made by a customer. In addition, these metrics could determine customer satisfaction levels, which influence customer loyalty and result in customer retention, as well as factors that influence their total experience with the contact centre.

The **Performance perspective** enables managers to view the overall operational performance of the contact centre. These metrics could include contact arrival patterns, available capacity, workstation utilisation, and losses incurred. This perspective allows for the ongoing management of the business and identifies areas that require attention in an effort to optimise the contact centre operation.

All aspects that relate to people are catered for in the **Human Resources perspective**. This could include employment equity percentages, absenteeism, attrition rates, and total people management costs. This perspective provides management with a view on all areas that are impacted by their staff and enables management to quickly identify problem areas such as high attrition rates and absenteeism.

Now that we understand how MIS operates, what the balanced scorecard perspectives are, and the requirements of each management level, let's look at some specific guidelines for management information performance metrics.

In order for us to better understand the performance metrics we need to review the roles of management at each of the management levels (Operational, Tactical and Strategic):

3.3.1. Operational Performance Metrics

In his book, *Organisational Behaviour: Human Behaviour at Work*, John Newstrom (Newstrom, 1996) summarises operational management's major functions, emphasising directing and controlling the work of employees in order to achieve the team goals. According to Newstrom, this is the only management level who mostly manages non-managers. Thus, most of the managers' time is allocated to the functions of directing and controlling. This management level therefore requires the relevant MI that will enable him / her to fulfil his / her role. **Figure 8** summarises some of the performance metrics that can be used at an operational level in the contact centre environment.

Mngmt Level	Financial	Customer	Performance	Human Resources
Operational information requirements	<ul style="list-style-type: none"> Average agent remuneration Average rand value of sales Operational expenditure per business unit 	<ul style="list-style-type: none"> Customer satisfaction rating Agent verbal quality rating Agent written quality rating Service level achievement Call abandonment rate First call resolution Average contact handling time % Occupancy Compliments / Complaints Lead to sale conversion Average speed of answer % Direct Marketing contacts 	<ul style="list-style-type: none"> Forecasted vs. actual volume variance Quality leads generated per agent Time spent in training Time spent on lunch and tea breaks Schedule adherence (Login/Logout, Staffed time) Call arrival patterns Activity reason codes (Aux Code usage) Available / Idle time 	<ul style="list-style-type: none"> % Absenteeism % Attrition % Permanent vs. contract % Employment equity

Figure 8: Operational Performance Metrics
(Source: Paladin Consulting)

3.3.2. Tactical Performance Metrics

According to Jan-Hein Van Der Burg (Van Der Burg, 1999) tactical management takes the decisions made at a strategic level and delivers the necessary changes to the process systems, operational targets and steering instructions for the benefit of operational management. In other words, it makes a strategy operational. Western Integrated Resource Education states that this planning process occurs in two stages as follows:

- Where am I now?
 - Business analysis, including resource demands
 - Benchmarking
 - SWOT analysis
 - Finding the weak-link / competitive advantage
- How do I get from here to there?
 - Transition planning, including resource usage
 - Set target benchmarks which act as a yard-stick to longer term goals



With this management role in mind, **Figure 9** provides examples of what performance metrics can be used at this level.

Mngmt Level	Financial	Customer	Performance	Human Resources
Tactical information requirements	<ul style="list-style-type: none"> Operational expenditure split between IT, Staffing, Communications, Training, Facilities and Overheads Total rand value of sales per business unit Operational expenditure budget vs. actual Seat pricing per business unit 	<ul style="list-style-type: none"> % Operations achieving target customer satisfaction rating % Operations achieving agreed service levels Call abandonment rate % Overall First Call Resolution Rate % Occupancy Lead to sale conversion 	<ul style="list-style-type: none"> Forecasted vs. actual volume variance Total capacity available vs., usage % Workstation utilisation per 24 hrs Contact arrival patterns % System / Application down time Total contacts handled per contact type 	<ul style="list-style-type: none"> % Absenteeism % Attrition % Permanent vs. contract % Employment equity Employee satisfaction rating per business unit

Figure 9: Tactical Performance Metrics
(Source: Paladin Consulting)

3.3.3. Strategic Performance Metrics

In contrast to operational managers, Newstrom (Newstrom, *et al*) states that strategic management spend most of their time on the functions of planning and organizing. They determine the mission and set the goals for the organisation, and are accountable for the overall management of the organisation. **Figure 10** summarises some of the performance metrics that could assist strategic management in fulfilling this role.

Mngmt Level	Financial	Customer	Performance	Human Resources
Strategic Information requirements	<ul style="list-style-type: none"> Cost recovery vs. operational expenditure Total Contact Centre expenditure per month and year to date Total Rand value of sales Operational expenditure budget vs. actual 	<ul style="list-style-type: none"> % Operations achieving target customer satisfaction rating % Operations achieving agreed service levels Total contacts handled Total leads generated Total complete sales 	<ul style="list-style-type: none"> Cost per contact Cost per call minute % Consultant occupancy Forecast vs. actual volume variance Actual losses incurred from customer claims 	<ul style="list-style-type: none"> Total people management costs Total FTE's split between permanent and contract % Absenteeism % Attrition % Employment equity Total employee satisfaction ratings

Figure 10: Strategic Performance Metrics
(Source: Paladin Consulting)

Although the performance metrics appear similar at each level and across each perspective, the need for consolidated performance views and the manner in which managers apply the information in their decision-making, changes.

3.4. Principles of Effective MI

The following are guidelines for effective the management of information:

- The definitions of each metric must be documented and standardised across the organisation
- The information provided must be relevant to each manager, comparing actual performance against targeted performance
- The information must support the business objectives
- It is vital to record and monitor anything that has a direct influence over the result that is being pursued, i.e. the “base data”
- The source of the information must be consistent and stored in a central repository (data warehouse)
- The reports and information must be available when and where the managers require, for the purpose of:
 - troubleshooting if off-target
 - reviewing all areas where results could be increased or enhanced
- Effective MIS should be easily interpreted by the user, i.e. formatted according to the specific requirements using standardized terminology. This means it should be understandable to people who do not use the information on a regular basis, e.g. client and business unit managers
- The MIS outputs should be automated as far as possible to minimise both exposure to human error and the resources required to produce it
- The reports must have the ability to be passed smoothly up the management chain without bottlenecks or undue pressure on individuals
- The MIS outputs should offer drill-down functionality for clarity on any specific performance metrics

As an added guideline, some pitfalls to avoid in MIS are listed below:

- Ensure that all parties follow the change request process, and document all MIS in an MIS Brief. This will allow for the management of client requests which can become excessive and uncontrollable
- Ensure report information and formats are easy to interpret for any user
- Do not include in client MIS any individual agent productivity results which may reflect badly upon the overall team (it is your business to manage the individuals, not the client’s)
- Do not design MIS separately from the people who are going to use and manage it, as no one will understand it and they will end up not using it
- Don’t ignore people with a natural flair in this area,; they can add huge benefit to the business MIS
- Do not overcomplicate MIS – if people cannot understand it, they will not use it

4. What is Quality MIS?

Until now, we have constantly referred to how MI positively supports the decision-making process at various management levels. Conversely, poor MI can negatively impact the decision-making process. For instance, incomplete MI about agent utilisation could result in an unnecessary increase or decrease in staffing capacity. In order for MI to be useful, it must be of a consistently high standard. **Figure 11** outlines the attributes that should be present in high quality MI.

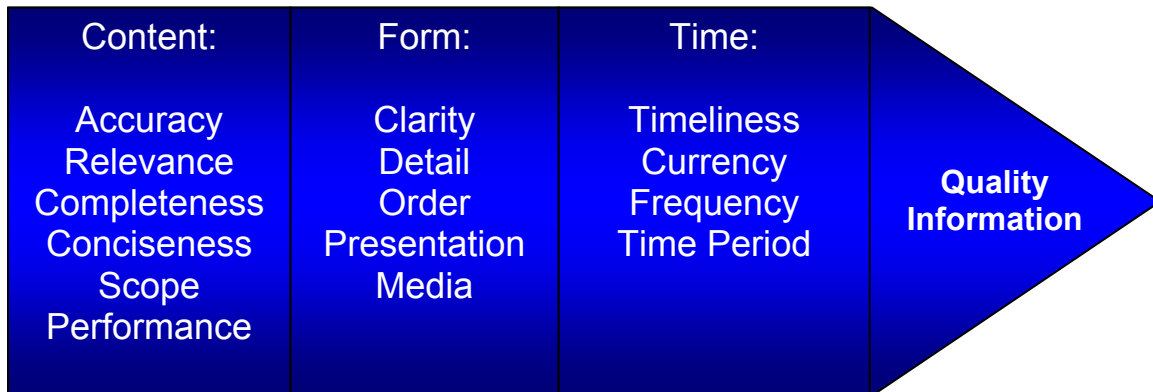


Figure 11: Attributes of Quality Information
 (Source: Management Information Systems, JA O'Brien, 2002, Pg 16)

A breakdown of these quality attributes is documented below.

4.1.1. Quality Content Dimension

The content component of MI refers to the 'meaningful' portion and actual information contained in the reports, which should adhere to the following:

- Accuracy – Free from errors
- Relevance – Related to the needs of a specific recipient for a specific situation within the balanced scorecard parameters
- Completeness – All information that is needed must be provided
- Conciseness – Only the information that is needed should be provided
- Scope – A broad or narrow scope, or an internal or external scope
- Performance – Measurable performance metrics

4.1.2. Quality Form Dimension

The form component of MI refers to the look and feel, and also relates to the presentation of the information, which should adhere to the following standards:

- Clarity – Easy to understand
- Detail – Detailed or summary format
- Order – Arranged in a fluent and / or predetermined sequence
- Presentation – Presented in narrative, numeric or graphic form
- Media – Provided in the form of printed paper documents, video displays or other media

4.1.3. Quality Time Dimension

The time component of quality refers to the intervals, frequency and timely delivery of the MI, and should adhere to the following:

- Timeliness – Provided when it is needed
- Currency – Up-to-date when it is provided
- Frequency – Provided as often as needed
- Time Period – Provided about past, present and future time periods

A common cliché often quoted is “a fool with a tool is still a fool”. Having the highest standard of quality information is meaningless unless the user has the knowledge and experience to effectively use the information. Understanding what you are measuring and why you are measuring it should drive the use of information, and inevitably steer the management decisions towards the overall goals of the business.

5. Summary and Approach

Although this may not be the definitive guide for MI in terms of what to measure as MI is unique for each business, it does provide MIS teams (from all experience levels) with a solid foundation for MI in the business environment.

The principles and guidelines documented here are primarily focussed on contact centres; however, they can be applied to all areas of MIS within any business. MI should not be an excuse to react to a problem, but rather a tool to proactively manage your operation by acting as an initiator for change.

Here are some key points to guide you in your journey of redefining your MIS:

- Always link the objectives and goals of your MIS outputs to the vision and strategy of the operation. This will channel the efforts for MIS in the right direction and act as a reminder to people, including the client, when disputes arise about the purpose of the MIS outputs
- Remember to include your customer satisfaction and performance measures as part of your MIS outputs. Don't just measure customer or client satisfaction for the sake of measuring it. This information provides immense value to your marketing teams and guides them on where to focus their marketing efforts
- Question the need for an MIS output or a change to an existing MIS document. Project Managers or other stakeholders can easily convince you that the SLAs and KPIs set are the right choice; however, you do not have to take their word for it. If these metrics do not relate directly back to the vision and strategy of the operation, should you be measuring them and if so, what purpose do they fulfil? Ask other operations managers who have worked on similar operations, whether the SLAs and KPIs they set worked and how effective they were
- Document all your MIS governance, timescales and other such information in the form of an MIS briefing document. This should include the process for any change requests that may be required at a later stage. The more detail included in these documents, the less risk your MIS will be at when questions about formula calculations and sources are raised. Ensure that these documents are agreed upon and signed off by all relevant stakeholders, including your MIS Manager
- Conduct workshops on any new report formats and entirely new reports. It is imperative that the users and decision-makers understand what information they are receiving. If the information is in the format of an interactive web page, ensure that all users know how to use the controls. Once you have set a standard for your reporting, maintain continuity in your formats, styles and formulations. Changing the format of a report can be confusing to the users and will often require additional workshops or training sessions to update the users.

- Bear the following in mind when designing and developing MIS reports:
 - Clearly define the reason for the report
 - Identify and remember who your audience is
 - Clarify and confirm what your audience wants
 - Confirm and validate your information sources
 - Confirm the timescales
 - Design clear layout and contents
 - Produce a summary of results
 - To maximise on client enrolment, it may be useful to include a “summary of events” section or a definition” section
- Be innovative and flexible with your MIS. Managers are always looking for new ways to do things better and will often rely on your MIS team to provide some guidance in this area. This may entail doing research on current trends or adapting the MIS outputs in accordance with burning issues in the operation
- Involve the stakeholders in all your design work from the beginning. This will assist in reducing the number of changes that need to be made once you have finalised a report format

In conclusion, I would like to offer a simple approach to MIS that, if properly managed, can provide an effective and efficient MIS solution. This ensures that alignment between the business, operations and the MIS team is consistent through focussing on key areas, as follows:

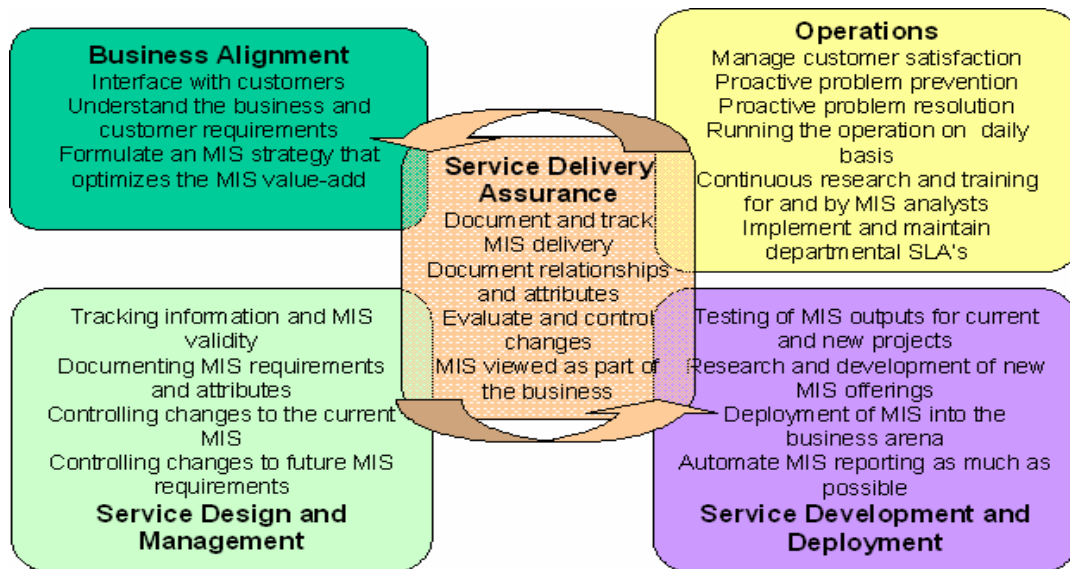


Figure 12: An Approach to MIS
(Source: Paladin Consulting)

For further information or assistance in implementing any of the MIS initiatives, please contact Christopher Mills at the following:

- Email: Christopher.Mills@Paladin-Consulting.co.za
- Cell No: +27 (0) 83 653 2992
- Work No: +27 (0) 11 807 5640

6. References

- a) Dimension Data CIS Consulting.
- b) Higgins, S.E., 2002, Information as a tool for management decision-making: A case study of Singapore, Nanyang Technological University, available at <http://www.information.net/ir/7-1/paper114.html> dated 12 December 2003
- c) O'Brien, J.A., 2002, Management Information Systems (5th Edition), McGraw Hill Irwin.
- d) Stair, R.M., Reynolds, G.W., 2001, Principles of Information Systems (5th Edition), Course Technology: Thomson Learning.
- e) Jensen, R., 1999, The Dream Society, McGraw-Hill.
- f) Kaplan, R.S., Norton, D.P., 2001, The Strategy Focussed Organisation, Harvard Business School Press.
- g) Krotz, J.L., 2003, Who's Your Best Customer?: Marketing Intelligence, available at <http://www.bcentral.com/articles/krotz/106.asp> dated 05 January 2004.
- h) Manning, T., 2003, Competing Through Value Management, Zebra Press.
- i) Cronje, G.J. de J., Du Toit, G.S., Motlatla, M.D.C., Introduction to Business Management, 2000, Oxford University Press South Africa.
- j) Newstrom, J.W., Davis, K., 1996, Organisational Behaviour: Human Behaviour at Work, 10th Edition, McGraw-Hill.
- k) Simon, H.A., 1986, Decision Making and Problem Solving, National Academy Press, available at <http://www.dieoff.org/page163.html> dated 10 December 2003.
- l) Van Der Burg, J.H., Tactical Management, available at <http://utopia.knoware.nl/users/jhb/poba/proc/bpe.html> dated 05 January 2004.
- m) Western Integrated Resource Education, 2003, An Introduction to WIRE, available at <http://agecon.uwyo.edu/WIRE/IntroToWIRE/Default.htm> dated 07 January 2003.