

CHAPTER 1

SUPPLY CHAIN MANAGEMENT - A BASIC OVERVIEW

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1 SUPPLY CHAIN MANAGEMENT – A BASIC OVERVIEW

1.1 Introduction

The way in which companies have conducted, managed, controlled and integrated their business operations have experienced dramatic changes during the last couple of years – this is especially true in the worldwide recording and music industries. Rapid advances in technology and increasing regulatory freedom have changed the rules of operation and competition. Businesses are now competing globally and traditional barriers between industries are breaking down. To cope with these and other changes and achieve superior performance, business leaders are moving towards new business paradigms that allow their companies to work more closely together with their traditional and new business partners (which include all clients and suppliers up and down the supply chain), in order to adapt to the rapidly changing marketplace.

As discussed in the fourth chapter under point 4.2, it is proposed by the mentioned authors that this new collaboration can be successfully achieved by outsourcing all non-core business activities to a third party business partner, which in turn will lead to an improved integration through supply chain management. As companies focus on their core activities and outsource the rest, their success increasingly depends on their ability to control what happens in the value chain outside their own boundaries (Magretta 2000: 29 - 59). Supply chain leaders are thus reconsidering the linkages, not only between functions within their own companies, but also with other organisations up and down their supply chain. The main advantages of this outsourcing process, is that the company is then free to focus on its core competency, which in this case is simply the recording and publishing of music.

1.1.1 Problem statement

The South African recording industry provides a unique and compelling case for creating value through outsourcing - and ultimately through the total integration of supply. The local industry's dramatic history of growth, its sheer pace, the magnitude of

change and increasingly complex and global supply chains have created huge challenges for all participants. Traditional channel structures and behaviours in the industry’s supply chains have not kept pace with these changes. In the markets of the future, comprehensive management which collaborate the supply chain as a whole is needed to fulfil the new demands set by players and consumers alike.

The hypothesis statement of this thesis is in part derived from the problem statement. This hypothesis statement is discussed in the research methodology in Chapter 5 under point 5.3.3 and is stated as follows:

“Record Companies in the South African Recording Industry should outsource all their non-core business activities to one strategic business partner.”

It is clear to see how this statement is derived from the problem statement of this thesis, as described here in point 1.1.1. This statement, as well as the opportunities and problems it may present, is the core around which this thesis centres.

Figure 1.1 A supply chain of the recording industry

Backward Integration	Record Company	Forward Integration
<p><i>Additional functions:</i></p> <ul style="list-style-type: none"> • Manufacturing • Warehousing • Inventory management • Stock insurance 	<p><i>Traditional functions:</i></p> <ul style="list-style-type: none"> • Contract artists • Record master CD's • Publish music 	<p><i>Additional functions:</i></p> <ul style="list-style-type: none"> • Marketing and promotions • Sales • Order entry • Picking and packing • Physical distribution • Debt collection

Source: Own research.

In addition to the problems mentioned above, another problem addressed in this thesis centres around the extensive backward and forward integration that has been forced upon the traditional record company (also refer to the discussion on the current logistical processes of MODEL A in Chapter 3). Figure 1.1 on the previous page depicts the functions that a record company should traditionally be responsible for (its core competence). It then also shows all the other functions that record companies around the world now generally perform in-house in order for its product to reach the market.

1.1.2 Supply chain management

A growing number of businesses in South Africa and throughout the world are using the term ‘supply chain’ to describe a process whereby both internal and external units are forged together to deliver low-cost and high-value performance to the client or consumer. As long as a decade ago (Robeson and Copacino 1994: 11 – 12) the ‘supply chain concept’ was compared and related to the ‘cycle-time concept’ – this means that organisations that develop a continuous-flow inventory system frequently do so with a limited number of primary accounts, often using third-party logistics partners. Also refer to Chapter 6, point 6.3.2, for a comprehensive discussion on lead times and other aspects relating to the time-to-market timeline.

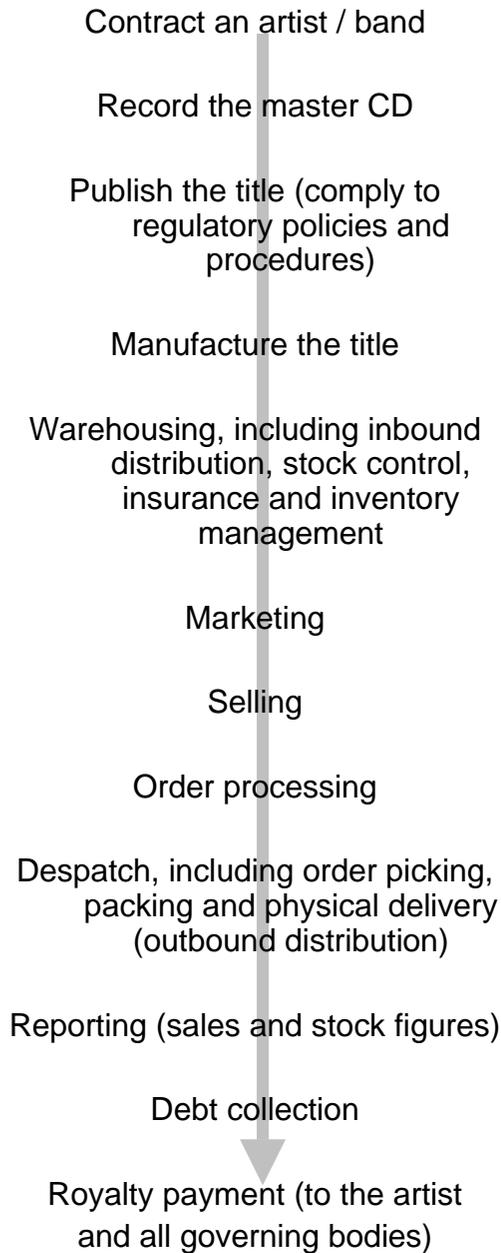
Implementation of a ‘cycle-time-to-market strategy’ may then result in the focused implementation of a supply chain management (SCM) strategy. Businesses will need to design, develop and maintain a set of relationships both within and outside its organisation (*i.e.* between the company and its vendors, suppliers, third parties and customers), capable of executing the overall corporate strategy. Robeson *et al* (1994: 12) further believed that the ability to manage *between* functions would become as important as the ability to manage *within* a function. By examining the hypothesis statement of MODEL B, this study will prove this statement correct (refer to the functions of the supply chain management company discussed in MODEL C in Chapter 6).

1.1.3 Objective of the research

Figure 1.2 Schematic diagram of the three models

Source: Own research

MODEL A



MODEL B

THE HYPOTHESIS STATEMENT
“Record Companies in the South African Recording Industry should outsource all their non-core business activities to one strategic business partner.”

MODEL C

Record Company’s responsibilities:

- Contract an artist / band
- Record the master CD
- Publish the title
- Marketing
- Royalty payment

Supply Chain Management
Company’s responsibilities:

- Manufacture the title
- Warehousing
- Selling
- Order processing
- Despatch
- Reporting
- Debt collection

The objective of this research is three-fold:

- (a) Examine the current local recording industry, its players (Chapter 2) and its processes (Chapter 3). This current supply chain is referred to as MODEL A. The way in which record companies have been forced to integrate backward and forward into other industries, is also researched and evaluated.
- (b) Research and evaluate a new business principle whereby all non-core business activities are outsourced to a third party supply chain management partner that can manage and perform all the record company's non-core business activities (discussed as the hypothesis in Chapters 5). This hypothetical supply chain is referred to as MODEL B
- (c) Document the outsourced model where non-core business activities are outsourced to the third party supply chain management partner. This tested model is referred to as MODEL C.

1.2 Research methodology

1.2.1 The business research process

1.2.1.1 Research attributes

Business and management research need to provide findings that advance knowledge and understanding, it also needs to address business issues and provide a process for solving managerial problems (Saunders, Lewis and Thornhill 2000: 2 – 4). During the research of this thesis, the six attributes of a proper business research process were followed closely:

- (a) Define the objective of the research
The objective of the research was clearly described in the first chapter under point 1.1.3 above. The hypothesis statement is described in the research

methodology in Chapter 5. The objective of this thesis encompasses research into the current local recording industry, its players, its channel processes and its backward and forward integration (MODEL A). The research was then broadened to explore the outsourcing of some or all non-core business activities to strategic third party supply chain management partners (the hypothetical MODEL B which lead to the tested MODEL C).

(b) Define the research procedures

The research procedures that were followed are defined and explained under the research methodology in the fifth chapter.

(c) Planning procedures

Thorough planning was of primary importance throughout the entire research process. The planning procedures were centred around the defined problem statement, the research objectives and the hypothesis statement (MODEL B).

(d) Review research imperfections

Any faults, shortcomings or imperfections of the research process were predicted and estimated. The impact that such shortcomings have on the final conclusions are noted and explained.

(e) Data analysis

All data were analysed in order to determine its relevance, validity and importance to this study. Data were gathered by circulating questionnaires to record companies, their clients and suppliers as well as to supply chain management companies – details of the respondents are discussed in Chapter 5 under point 5.4.3.2. The questionnaire is attached as Annexure I at the end of the thesis. Personal interviews were conducted with various players in the local recording industry (refer to Chapter 5 point 5.4.3). In conjunction to this primary information, literature sources (text books, academic journals and magazines, scientific publications, websites and others) were studied in order to obtain

relevant secondary information (refer to the list of References at the end of the thesis).

(f) Conclusions and recommendations

Conclusions and recommendations are limited to the data and information that were gathered and which were justified by the research parameters. These conclusions and recommendations are summarised and explained in the last chapter, where MODEL C documents the outsourced supply chain model.

1.2.1.2 Research steps

Following a set of systematic steps is vitally important to the planning, order and execution of any scientific research process. The research in this study was executed by following seven basic steps, which are listed below in chronological order:

(a) Determining research objectives and the scope of the study

The topic to be researched was identified early in the research, and was registered as: A Supply Chain Model for the South African Recording Industry.

(b) Current situation exploration

Exploration and judgement of the current South African situation, its players, markets and industries are explored and documented in Chapters 2 and 3. Where the South African market was lacking in sufficient examples, the international scene was also explored and judged in terms of its validity to be implemented in the current South African situation. Primary information (questionnaires, personal interviews, telephone conversations and electronic mails) as well as secondary information (textbooks, publications, scientific articles and others) were utilised throughout the situation exploration phase. These are discussed in more detail under the research methodology and the sources of knowledge in Chapter 5.

(c) The study design

The design of the research study was drafted in accordance with the prescribed methodology of a proper research proposal that were explained in point 1.2.1.1 above.

(d) Sampling and data capturing

Sampling and data capturing of all information gathered from research as well as from interviews with targeted players in the recording industry are utilised. Employees of record companies, music dealers, compact disc manufacturers and supply chain management (SCM) companies were contacted and interviewed through personal interviews, telephone conversations and electronic mails (refer to the details of the respondents in Chapter 5 under point 5.4.3).

(e) Information evaluation

All researched data were scrutinised and reduced to a manageable quantity, where after it was used to develop summaries, conclusions and ultimately the new MODEL C in the last chapter.

(f) Information analysis

The gathered data and information were analysed, assigned with qualitative and quantitative values and then interpreted and used as sources of knowledge in the writing of the thesis.

(g) Writing of the thesis

The thesis was written in a systematic and planned way using different thinking styles and sources of knowledge, while utilising all sources of information available. These are once again explained in the research methodology in Chapter 5.

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1.3 Managing existing business paradigms

1.3.1 Discontinuous business change

The worldwide recording industry has undergone some revolutionary changes over the last couple of decades (refer to the technological input of *Sony Music Entertainment* described in Chapter 2). Businesses now find themselves in a mode of continuous change and these changes (also referred to as discontinuous business changes) are abrupt and sudden, leapfrogging ahead of predefined expectations, driven by new discoveries and the application of innovations, new technologies and new trends and music genres. Behrmann (2000: 1 – 2) defines discontinuous change as almost the opposite of change as we know it – being a ‘gradual transition based on an evolution from past events’. Understanding whether this unevenly distributed revolution has arrived in an industry and how much dislocation it will create, is crucial to business success.

1.3.2 Changing the mindset

Businesses are evolving and changing at a rapid pace, and towards the end of the previous century leading businessmen and –women have warned that businesses who want to keep up with the changing pace, or better still be a step ahead of the competition, will have to look at new ways to better their current business operations (Hatton 1996: 16 – 17). Only those individuals and companies who can proactively adapt to these fluctuations and discontinuous changes will survive. The Group CEO (Chief Executive Officer) of a major international information technology company (Ling 1999: 1 - 2), believes that everybody has biases and perceptions about their own abilities, opportunities and futures as well as those of their companies. Traditionally, local companies and especially local record companies, have preferred to perform all logistical functions in-house. There is an unfounded desire to keep all business functions close to the business itself so that it can be tightly and internally managed. Breaking out of these beliefs and being open and receptive to change, both personally and organisationally (for example, letting go of some of the control and outsourcing

some business processes to a third party), lies within the person and the company's inherent mindset (Jeannet 2000: 3 – 4).

The role that is played by these established and fixed mindsets (also referred to as paradigms or thought patterns) in a specific company, industry or business environment must not be underestimated. Although they may have some advantages, they more often than not have a negative, restraining effect on change and evolution. Primary research conducted into specific paradigm characteristics (research performed by means of personal interviews, telephone calls, electronic mails and questionnaires as listed under point 5.4.3.2) were in accordance with the findings of De Villiers (1996: 27 – 30). The following four main characteristics were identified:

(a) A way of thinking

A mindset or paradigm invariably leads to a way of thinking, a structure of reference or boundaries within which a person handles or evaluates incoming information - this concept was first discovered and described by Thomas Kuhn in 1970. There is no such thing as a completely objective person. Paradigms colour the perceptions, decisions and actions of all people, either negatively or positively influencing the ways in which they conduct business and make business decisions.

(b) A fixed mindset

Especially in a business that is well positioned, functioning profitably and performing close to optimum levels, paradigms will be set strongly and followed meticulously. Any new ideas, innovations or technologies (such as outsourcing current profitable business operations or processes) will therefore not be accepted easily.

(c) An information interpreter

A paradigm performs the same function as a sift, selecting which of the received information is to be interpreted as well as in which way. If a conflict exists between the information received and the person or the business's paradigm, the

information will in most cases be ignored. The mind is very effective in finding and sifting the facts that will support a particular mindset or point of view. This means that a person's mind or a business as a whole will focus on the data that it needs to support its own point of view. In all people there is an inherent resistance to change, which plays a huge part in the way data are digested or processed. It is therefore imperative to challenge the mind to find some mind-opening practices and eliminate those practices that limit breakthrough thinking.

(d) An industry leader

It is important to note that when a set paradigm is changed or a paradigm-shift has taken place within a leading business enterprise, it will influence all other players in the industry. When a new, improved technology or innovation is developed and implemented by one company, all other players competing in the same industry will have to follow suit. A good example was the development and introduction of the 33 1/3 rpm (revolutions per minute) long play record into the recording industry in 1948, as well as the introduction of the CD (compact disc) in 1982 (www.sonymusic.com). A company that may have had a big market share before those technological innovations were adopted by the market, would quickly find itself with diminishing sales and growth if it did not also adopt the new innovations.

Deeply set within the collective mindset of a business are all the experience, learning and beliefs of the past. Whereas it is imperative to stimulate learning in the organisation and to capture and hold the essential intellectual property that is the business's asset, it is just as important to *unlearn* what is no longer relevant and thus stifling the ability of the business to really innovate and become a market leader. Unfortunately, bringing about mindset change is hugely difficult. Since it is a fight against a basic and ingrained behaviour or way of thinking, enormous energy will be spent in trying to prove that the person or the business has been right all along and that there is really no reason to change the mindset and adapt any new innovations or business processes (like outsourcing a part of the supply chain).

USB-ED (University of Stellenbosch Executive Development) is a private executive company within the University of Stellenbosch Business School (www.usb-ed.com). During 2003, the company presented training courses consisting of presentations, case studies, exercises and interactive group work, at various venues around the country. These courses introduced participants to the structural and systematic impact of change, so that after completing the course, the learners should be able to:

- Know what change they are dealing with
- Understand which variables, issues or factors have the biggest impact
- Clarify what they really want to accomplish
- Learn how to stay on the designated or chosen course
- Understand the link between structures, change and results

The presenters propose that anybody who is involved in an imminent, current or proposed business change initiative should attend the course. These and other courses should assist business managers to deal with their paradigms and rationally review and implement the necessary business changes.

1.3.3 The impact of change on logistics systems

Change can either be viewed as a thorny management issue, or as an important competitive advantage. For logistics practitioners, change comes in many forms, for example faster order cycle times, increasingly differentiated products and services and ever more sophisticated technologies to help manage all of this complexity. One consequence of these changes is the need for more dynamic and responsive logistics systems that can readily adapt and respond to the changing needs and requirements. This study will aim to prove that the key to mastering change as a competitive weapon has two equally important facets: firstly the development of internal company capabilities and competencies necessary to be truly productive, profitable and flexible, and secondly to develop linkages and partnerships in the supply chain in order to reap the optimum benefits of the logistics or supply chain management process.

A logistics system can be termed a competitive advantage only to the extent that it provides customers with products and services that they want or need, when they want or need them. Once customer services strategies are identified, marketing and distribution channels must be designed to perform to the required standards. Analytical tools can be used to optimally allocate and deploy financial and human resources to achieve desired levels of service in a logistics network. Preparing the business for change and doing things differently, may be the most important step in successfully implementing new logistical strategies.

1.3.4 Maintaining a competitive advantage

After breaking away from the limiting paradigms of the past, the reborn business must aim at achieving and maintaining a competitive advantage over its competitors. Every academic, author, entrepreneur and businessman or –woman hold a different view on the elements required to manage and maintain a winning company. Through research it was determined that the following four basic elements adequately sum up the aspects that need to be considered and / or achieved in order to maintain a sustainable competitive advantage in the discontinuously changing record industry:

(a) Knowledge

Only knowing is not sufficient anymore. Knowledge, which can be defined as ‘having the capacity for informed action’, is needed to stay ahead of the pack (Szylo 2000: 1 – 2). Knowledge is an extremely powerful business tool - it can even change set paradigms in a successful business. However, knowledge is useless if it is not also managed properly. The following three steps list how knowledge must be obtained and then managed:

- Firstly, businesses need to obtain the necessary knowledge, whether it is through primary or secondary resources or just by learning through doing (*i.e.* learning by experience)

- Secondly, infrastructures then need to be created which will ensure that the knowledge obtained is retained and shared with the relevant people at the relevant time
- Lastly and probably most important, the record company's management team needs to *act* on its obtained knowledge. It needs to, at all times, keep track of emerging trends, new technologies, innovations and all other possible opportunities and threats in the market. The key to achieving success is to be pro-active rather than reactive. In order to maintain a winning company, the relevant knowledge gained must move employees and management alike into motion and lead them to deliberate action. This ties in directly with the statements made by Ling (discussed in point 1.3.2 above) on the importance of not just knowing, but taking action by changing the ways in which things have always been done (*i.e.* changing the business paradigms and mindset)

(b) Connectivity

The more people or businesses work together in a network or in a supply chain, the higher the value of that network becomes. Internal connectivity as well as connectivity to the outside world must not be rated as purely sufficient, but must be seen to offer added value. In order to successfully manage either knowledge, change, transformation or any other organisational issue, there needs to be connectivity in the channel. Both connectivity ('point b' above) as well as speed (discussed in 'point c' below) are needed to extract value from the above-mentioned knowledge (in 'point a' above).

(c) Speed

Speed to market is vital. Getting the latest music release sold and delivered into the trade and onto shop shelves before the competition will ensure at least an initial market dominance. Just as important is speed of communication to customers and suppliers (*i.e.* successful marketing as is discussed in Chapters 3 and 6). Most businesses operate in real time and need the correct and relevant information available at the click of a button. This is one of the main advantages

that outsourcing selective business processes to a third party can add to any business' operations, since these third party operators will manage stock, control inventory and produce daily stock and sales reports as requires by their client companies.

(d) Effectiveness

Actually doing different things instead of just doing the same things differently, is another characteristic that defines success. Record companies need to differentiate themselves from their competitors by the way they do things, such as their ways of internal and external communication, their network connectivity, marketing, quick lead-times and superior service levels.

1.3.5 Complete transformation

Very often, a business struggles to adapt to changes in the market by simply disregarding or adapting its own set of paradigms. More often than not a complete business transformation is necessary to stay ahead of new technologies, innovations and trends. This transformation may include changing the structure, people, skills, operations, technology, procedures, philosophy or culture of the business and / or its employees. In order for this re-creation or re-generation to work, a business needs a strong strategic imperative, a plan and a capable multi-disciplinary team committed to executing change. Of primary importance is the belief of all participants that this transformation will ultimately lead to a better business model and a better future for the company as a whole. Passion, vision and insight are necessary to grasp the possibilities of where the company is heading. The point of departure is openness and trust and moving forward will require communication and motivation.

Various authors view transformation management as one of the critical success factors of the new millennium (Jeannet 2000: 199 – 214; Szylo 2000: 1). The challenges in managing change go far beyond the requirements of developing and managing traditional businesses. In many ways it is also much more difficult than starting something from scratch. As discussed above, existing paradigms and their set structures

are resistant to change. The challenge lies in maintaining both the performances of the existing company structure while at the same time moving towards new and improved policies and procedures.

Transformation is not a single event but a series of steps in a process. In conceptualising the process of transformation it is essential that the complexity and sensitivity of the challenge be acknowledged. There exists some useful building blocks that can be used in constructing the transformation process. The programme will require strategy, marketing, technology and many other company resources. Ling (1999: 2 – 4) has identified the following four building blocks in establishing a successful transformation process (also includes ideas based on the Wheelwright-Clarke model):

(a) Research phase

The first building block of the transformation process is the very important research stage. It goes without saying that not everything that needs to be known is known at the outset of a project. Information can be gained by primary research or by consulting secondary sources. As new ideas and alternatives are considered, they must be discussed completely and challenged entirely by the appointed research team.

(b) Pilot phase

The next building block is piloting the most likely of the ideas, which allows the team researching the possible transformation alternatives to assess some of the ideas in a more practical environment. This will add more light to the way and direction in which the transformation process is moving.

(c) Establishment phase

In the establishment phase the ideas that have survived the piloting phase are applied more broadly in order to create something even more practical to work from. Although this can already be seen as the start of a definite design, dynamics of the research team and the record company itself will still affect the decision to outsource or not, as well as the transformation thereof.

(d) Implementation phase

Finally, the last building block is laid by implementing the best practice in a steady state. In order for the outcome to be successful, continuous assessment, communication, interaction, learning and feedback throughout the previous stages, and in fact throughout the entire newly established supply chain, are vital.

Transformation is implemented and managed in order to change paradigms that may no longer be relevant in the present-day recording industry – which in turn has been proven to be undergoing rapid, involuntary and discontinuous changes up and down its supply chain. Transformation management often means changing a complex system that will result in an integral reaction where one point of change will have an effect throughout the whole system or the whole chain. Transition through successful transformation management should be viewed as a core competence in any organisation, since being the first to implement the process of transition into the future, will be awarded with a competitive advantage, at least until the rest of the players in the market catch-up.

1.4 Evaluating channel strategies

After a record company's paradigms have been evaluated and changed for the better, the company may have reached the decision that, in order to keep up with the discontinuous changes in the recording industry, it needs to change its existing business strategy. One available and very viable alternative is to outsource some of its business activities to strategic logistics partners. This will mean that company management will not only be responsible for managing their own business, but also for the chains and links with their outsource partners. This in turn will call for a channel strategy that will optimise all operations between the company itself, its clients and its suppliers in the channel. Companies must be equipped to build into each and every one of these logistical channel decisions, an assessment of whether the transaction supports or erodes the business's strategic objectives, which at the end of the day is to sell as many music records (*i.e.* CD's, tapes, DVD's, video's and others) as possible.

Throughout the research and writing of this thesis, the principles contained in the Supply Chain Operations Reference model (SCOR) were kept in mind. This model was developed by the Supply Chain Council (www.supply-chain.org), which is an international and independent not-for-profit corporation. Refer to Annexure J at the end of the thesis for the scope of the SCOR processes.

1.4.1 Logistics management

The evolution of the supply chain management or logistics concept has clearly been documented in many logistics books and articles published over the last five decades. A careful review of this literature provides a foundation for tracing the evolution of the supply chain management or logistics organisation and its processes and procedures.

According to Robeson and Copacino (1994: 13 – 34) the evolution of business logistics can be divided into the following three eras or phases:

(a) Functional management (1960 to 1970)

During the 1960's and 1970's, many organisations made a gradual transition from the fragmentary management of individual processes like purchasing, warehousing and distribution to the integrated management of related functions under the two common headings of materials management and physical distribution:

- Materials management included functions like purchasing, raw materials, work-in-progress, inventory control, inbound transportation, surplus material and production scheduling
- Physical distribution included functions such as freight, warehousing, materials handling, protective packaging, order processing, demand forecasting, inventory control and customer service

The three main forces influencing the logistics company in the 1960's and 1970's are discussed on the following page:

1. The high costs of performing distribution functions, which accounted for nearly 50% of the cost of many consumer products (La Londe and Zinszer 1976: 1).
2. The introduction and application of computers, which lead to a tremendous increase in the number and sophistication of tools available to the company manager.
3. Pressures to improve customer service and productivity, while decreasing the costs of the distribution operation.

(b) Internal integration (1980 to 1990)

By the 1980's, logistics organisations had experienced a decided shift in the positioning of their distribution and materials management functions. Integrated logistics was now seen as 'the total range of activities concerned with the movement of materials, including information and control systems; logistics constituted a strand running through all the traditional functional responsibilities – from raw materials procurement to product delivery' (Sharman 1984: 72). Supply chain management now encompassed the traditional responsibilities for both physical distribution as well as materials management.

The main forces shaping the logistics business in the 1980's were:

1. The introduction of third-party logistics companies (refer to the detailed discussion on outsourced third-party logistics in Chapter 4).
2. Improved communication and information technology (refer to the processes of supply chain management and the use of information technology discussed in Chapter 3 and 6).
3. The introduction of Distribution Resource Planning (DRP) as a popular inventory planning and deployment tool based on exploiting the

information and connectivity of integrated systems (discussed in more detail under the warehousing function in Chapter 6).

4. The Just-In-Time (JIT) concept that strives for overall excellence and has the aim of eliminating all waste while consistently improving quality (refer to the comprehensive discussion on JIT in Chapter 3).
5. Lastly, customer service ranked as one of the major forces influencing the growth and development of corporate logistics functions.

(c) External integration (1990 onwards)

The organisational structure that emerged for logistics and supply chain management activities in the 1990's followed a pattern of external integration. Supply chain management now extended the concept of functional integration (as discussed in 'point a' above) beyond the organisation to all organisations in the supply chain (Ellram and Cooper 1990: 1). The focus had shifted to viewing the organisation within the context of an overall chain of value-creating activities of which the organisation itself is only one part.

The main characteristics of the last decade of the previous century were:

1. An understanding of costs and the sources for differentiation. Supply chain members began to understand each other's costs and began to work together to more efficiently improve profit margins.
2. Integration across the supply chain reduced an individual company's risks by spreading its investments, leveraging information against inventory and pooling expertise.
3. The supply chain began to gain leverage by utilising each other's resources (*e.g.* new markets, process innovations, production information and others).

4. Internationalisation and globalisation generated new markets and pooled skilled labour.
5. An explosive development of information and communications technology had a pervasive effect on all aspects of business – information technology is discussed in more detail in Chapter 6.

The integration of the logistics process during the past four decades has transformed the logistics organisation into a sophisticated management organisation. The transformation resulted from a variety of factors mentioned above, but the principal driver has continually evolved around the notion of achieving a competitive advantage through logistics and supply chain management. The competitive advantage could take many forms, from lower costs and increased profitability to improved and differentiated customer service.

However, before any company can formulate its optimal channel management strategy, a calculated and deliberate overview of all the activities involved is needed. In an ideal world, customer demand would be smooth and growing. Demand would be perfectly predictable and therefore enable perfect planning of the supply chain. Unfortunately, this is seldom the case. Buys (2000a: 1 – 4) therefore states that demand planning or forecasting should be the first activity to receive attention as part of an optimal channel strategy.

1.4.2 Forecasting

Companies today are faced with consumers who expect to buy the latest and newest products on the market – these products must use the latest technology, be completely reliable and of a high-quality. Thus, getting the right product to the right place at the right time and at the right price, is becoming more than just a competitive advantage – it is becoming a necessity for survival. This is one of the main reasons why putting together the detailed components of demand planning or forecasting is emerging as a critical factor for business success. The product of the demand plan or forecast is the

anticipated sales for whatever planning period is applicable to the products or the business as a whole. Hughes, Ralf and Michels (1999: 102) state that the essence of the quick response forecasting approach is no longer about selling what you have recorded or manufactured, but about recording or manufacturing what you will eventually be able to sell.

One of the keys to excellence in demand forecasting is *collaboration* (Gattorna 1999: 131 - 133). The greater the amount of information that can be incorporated into a forecast, the more accurate it is likely to be. Gattorna explains that when different business functions each develop their own forecasts, they typically do so with different assumptions about the factors that will ultimately affect demand. In a well-functioning process, operations can have a far-reaching impact on the accuracy of the demand forecast. Based on feedback from the operations department, the marketing team may decide to cancel a promotion scheduled for a music album currently in short supply and rather re-direct the associated spending to titles with higher inventory levels. Similarly, the sales force may be re-directed in terms of which titles to aggressively sell or push into the market. It is clear to see how the inclusion of operations in the planning process increases in importance as a business becomes more constrained by supply. While operations can thus provide critical information on product supply, the primary sources of information relating to the actions that need to be taken to stimulate demand, will always be primarily driven by the sales and marketing team of a company.

Forecasting has been in use for many years and can be a very effective business tool (documented by Granger in 1980: 153 – 165). Through personal interviews conducted by the author, it was discovered that most record companies do in fact use forecasts in their manufacturing decisions. There are usually ‘producers’ (the employees actually researching, performing and documenting the physical forecasts) and the ‘users’ (usually the top management team) who incorporate the forecasts in their decision-making processes. Its implementation as part of the business’s channel strategy will offer a number of significant benefits, such as:

(a) Reduced risk

Reduced risk accompanied by an increase in certainty of demand can be achieved. The more information gathered for the forecast (be it from the sales and marketing team, or via the operations department), the lower the risk of receiving unprepared-for orders becomes.

(b) Calculation of danger stock levels

By planning ahead and being aware of future orders, a company will be able to calculate its needed stock levels. A reduction in inventory levels, which in turn holds significant capital benefits, will be achieved by implementing the information gained through the forecast.

(c) Production and human resource planning

Fewer staff will be needed to cover demand peaks, for example during the very busy Christmas holiday shopping season when record companies usually achieve their highest sales figures (refer to the sales graphs in Annexures C and D at the end of the thesis). If the forecasting system is accurate, these increased levels of demand can be anticipated and adequately planned for. The high amounts of money, which usually needs to be spent on paying over-time salaries, can then be drastically reduced.

(d) Better demand planning

A definite improvement in the visibility of the customer or the end-user's demand can be obtained. By collaborating the research and experience of all divisions (operations, sales and marketing), a better idea can be formed of what the needs of customers will be like in the future. This will lead to better planning through the use of an improved forecasting system.

(e) Improved customer service

Improved customer service will be a direct result of proper forecasting and planning, since the right product will be available at the right time and at the right place.

Even with a proper forecasting system in place, a business on its own may still at some points in time, not be able to cope with situations of exceptionally high demand. It is here where businesses that cannot afford to ever be in an out-of-stock situation (or not have sufficient goods on hand to satisfy a sudden increase in demand), may well be advised to outsource some of their non-core business processes or operations such as procurement, warehousing, inventory management, sales or distribution to a supply chain partner.

1.4.3 Static and strategic components

By adding static and strategic policy components to the forecast, it is then possible to build a model of how inventory should flow during a given period. The task at hand is, however, how to put this theory into practice. The *static* components are relatively simple to determine. They can be assigned quantitative values by answering general questions such as:

- What is the manufacturing and delivery lead-time from the supplier?
- How often is the order repeated (order frequency)?
- How much is ordered at a time (order quantity)?

Any decent Enterprise Resource Planning (ERP) system will be able to incorporate the above-mentioned *static* components into a report. Hossain, Patrick and Rashid (2002: 2 – 3) identifies ERP as software systems for business management, encompassing modules supporting functional areas such as planning, manufacturing, sales, marketing, distribution, accounting, financials, human management, project management, inventory management, transportation and e-business.

It is, however, not these static components that are difficult to identify, quantify and report on, but the *strategic* policy elements influencing channel decisions that need a lot more thought and proper planning.

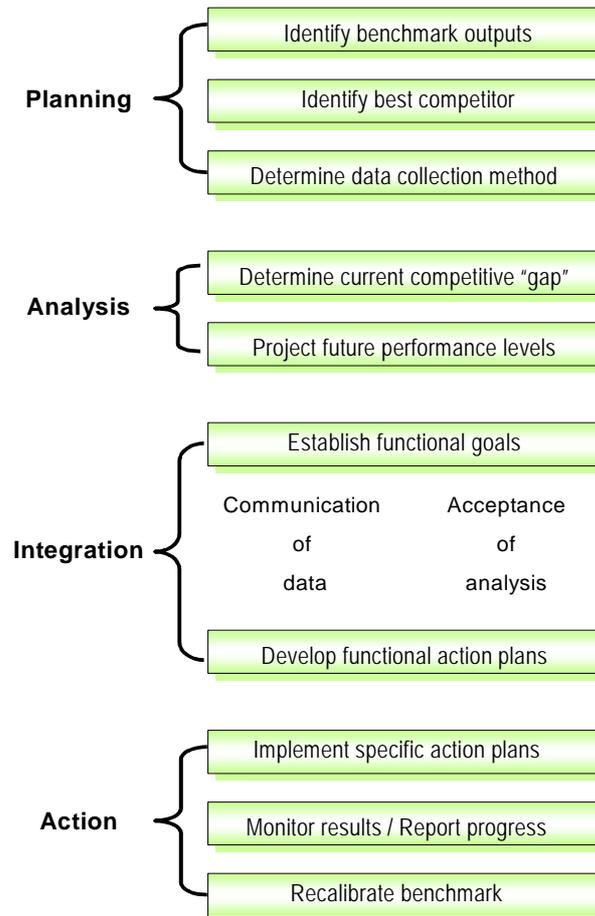
Forecasts, lead times, order quantities and other variables will unavoidably and inconsistently change, but it is here where the concept and advantages of *safety stocks* come into play. Unfortunately, even if it is possible to provide intelligent answers to the static questions mentioned above, no ERP system will be able to translate those answers into the optimal safety stock level. According to Buys (2000b: 1 – 4), in order to optimise the supply channel, it is necessary to ensure that the least amount of inventory is held - that means just enough to maintain the targeted level of necessary inventory. It is perceived that the better supply chain management solutions will use neural programming techniques to combine the static and strategic components and then calculate the correct safety stock level at which the business must make its replenishment decisions. In Chapter 6 a standard re-ordering system is researched and developed for the local South African recording industry (incorporating variables such as the current stock holding, the weekly orders received and the status of the title and the artist in the market).

1.4.4 Benchmarking

In the past it was usually deemed sufficient simply to measure internal company performance. Today, most companies use various tools such as service level agreements (SLA's) and pricing models to ensure that they receive the solutions they require from their strategic partners in the supply chain. A company can however never be sure that these measurement tools are in fact in line with industry's best practice. The intense level of competitive activity encountered, especially in recording industries around the world, has led to a new emphasis on measuring performance not just in absolute terms, but rather in terms relative to the competition. This is where the tool of benchmarking comes into play. Human (2000: 1 - 2) lists various academic definitions for the benchmarking process. Karlof, Lundgren and Froment (2001: 27 – 33) explain that the word benchmarking simply means a fixed point. Management science uses it as a metaphor for the point to aim at or standard to achieve in some form of performance, usually expressed in terms of efficiency, customer value or productivity. Competitive benchmarking can also be defined as the continuous measurement of the business's products, processes and practices against the standards of best competitors and other

businesses which are recognised as leaders in the particular industry. Figure 1.3 on the following page successfully explains the steps in the generic benchmarking process.

Figure 1.3 The generic benchmarking process



Source: Hines P. 1994. *Creating world-class suppliers*.

Although benchmarking starts with a competitive analysis, it does in fact go far beyond only that. While competitive analysis focuses on product comparisons, benchmarking looks beyond products to the operating and management skills that actually produce the product. Karlof *et al* (2001: 38) determined that the four key elements of benchmarking are:

- A survey: How is it (the current business processes and procedures) performed now?
- The comparison: How are others doing it?
- Understanding: What is the explanation of the gap in performance?
- Improvement: Implementation and learning.

Kunz (2000b: 1 – 3) advises that the process of benchmarking should not only be used to define solutions required and measure solutions delivered based on industry's best practice, but also to provide an adjustment mechanism by highlighting company weaknesses that need to be improved. Benchmarking breaks down the paradigm of an ingrained reluctance of operations to change. It was further found that people are often more receptive to new ideas and their creative adoption when those ideas did not necessarily originate in their own industry (Human 2000: 18 – 30).

Another three important principles, which should be considered when implementing benchmarking as a channel management tool, are listed below:

(a) Predefine all processes and activities

In order to use benchmarking as an adjustment mechanism, it is important that all factors, such as the processes or activities to be benchmarked as well as the benchmarking partners are predefined as part of the outsource channel agreement.

(b) Benchmark against the best

It is important to note that benchmarking against companies of a similar size in the same industry is not enough to ensure success - it is also necessary to take into account the unique situations that prevail in a particular given organisation and the industry as a whole. Benchmarking studies are free to search out the 'best of a breed' of a process or skill, wherever it may be found.

(c) Implementation guideline

Benchmarking can be used as a safeguard for both customers and suppliers alike, especially in instances of substantial change to the existing outsource- or service level agreement. This means that the benchmarking tool can be used as a guideline for implementation of the change requirements.

To derive the most benefits from the benchmark tool, it is imperative that it be used in all stages of the business's dealings in the supply chain. Once the requirement versus the industry benchmark is plotted, the business can decide if it wants to outsource or rather perform the function of benchmarking internally. If used correctly, benchmarking will provide an effective and objective tool to maintain realistic standards in terms of channel aspects such as pricing and service level standards.

1.5 Contents of the thesis

The aim of the first chapter of this thesis is to create a background study for the rest of the content of the thesis. This thesis will be divided into six chapters. The information included in each chapter can be summarised as follows:

Chapter 1: The first chapter contains the problem statement, the purpose of the research and a very brief overview of current supply chain management processes and problems. It explains some of the current trends dominating the recording industry at present, such as business paradigms, business changes, integration and transformation. It also includes a summary of the research methodology of the thesis.

Chapter 2: The second chapter researches the current players operating in the local South African recording industry, which are the artist, the record company, the trade and the consumer.

Chapter 3: In the third chapter, the current supply chain processes of the South African recording industry are investigated and documented (MODEL

A). Much forward and backward integration occurs in this industry, with most record companies performing various channel and / or logistical functions in-house (*i.e.* procurement, warehousing, inventory management, sales and marketing, physical distribution, reporting, debt collection and others).

Chapter 4: In this chapter aspects relating to the supply chain of the hypothesis statement (MODEL B) are researched and documented. The two main concepts which receive attention are outsourcing and integrated supply chain management.

Chapter 5: The research methodology of the thesis is explained in detail in the fifth chapter. The properties of the research, the steps followed during the conduction of the research as well as the hypothesis statement is described in this chapter.

Chapter 6: The last chapter investigates a proposed new process for the local recording industry: the outsourcing of all non-core business activities to a third party logistics or supply chain management business partner (MODEL C). Ways in which value can be added to a business' operations through outsourcing its logistical supply chain, as well as ways in which to manage this outsourcing process are researched and discussed (refer to the theory of these processes as documented in Chapter 4). Thus, the last chapter will contain conclusions that were reached after completion of the research, as well as specific recommendations that flow from the research and conclusions.

The questionnaire that was used during various interviews is attached as Annexure I at the end of the thesis.

1.6 Summary

In order to remain a competitive player in the local recording industry, businesses may need to change their set ways and existing paradigms by relinquishing control and outsourcing some of their business operations to strategic partners. It will then become necessary to transform their management teams in order to include the effective logistical management of the total supply chain. It is widely believed that business strategies invariably fail as a result not of their design but of their execution and management. In order to be successful, a strong need for external orientation towards outsourcing and the management of the supply chain as a whole need to exist. Hughes *et al* (1999: 209) have identified a wide array of initiatives that need to be pursued in order to achieve the benefits derived from a responsive outsourcing supply chain management operation and they are listed below:

- Identify and simplify the key supply chain processes
- Eliminate all waste and non-value adding operations
- Rationalise and consolidate the external supply base
- Minimise stock holding
- Shift the emphasis from supply-push to demand-pull
- Streamline the warehousing and distribution functions
- Strengthen the information technology infrastructure to facilitate the flows of stock data and sales
- Reduce lead-times
- Develop internal and external capabilities

It is however important to note that optimising only one of these sub-processes is most unlikely to make a significant contribution to overall business performance. Equally, addressing only individual activities within a single process, such as sourcing, forecasting or benchmarking, will also have little impact. In order to be successful, transforming responsiveness needs an integrated and holistic approach. This new principle was researched as MODEL B and the tested results were incorporated into MODEL C in the final chapter.