Title  The Development of a Framework for Managing Disruptive Innovation in the UK Recorded Music Industry
Name  Roger Murray Holdom

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THE DEVELOPMENT OF A FRAMEWORK FOR
MANAGING DISRUPTIVE INNOVATION
IN THE UKRecorded MUSIC INDUSTRY

by

Roger Murray Holdom

A thesis submitted for the degree of
Doctor of Business Administration
of the
University of Bedfordshire

Submitted May 2006
THE DEVELOPMENT OF A FRAMEWORK FOR
MANAGING DISRUPTIVE INNOVATION
IN THE UK RECORDED MUSIC INDUSTRY

Roger Murray Holdom

Abstract

The impact on the UK recorded music industry of digital music files distributed via the Internet has been studied using Clayton M. Christensen’s Disruptive Innovation Theory.

The study has identified that the recent innovation of Internet retail and distribution of digital music files was indeed disruptive (rather than sustaining) in nature in its impact on the established UK record manufacturers and retailers. Furthermore, Christensen’s theories have been used to investigate the factors (assets, culture and capabilities) that impeded the established UK recorded music manufacturers from adopting and promoting the new technology to create a digital consumer proposition. The reluctance of the established record manufacturers to embrace and therefore control the new technology of digital music files distributed via the Internet allowed new retailers like Apple’s iTunes to become the dominant providers to the new digital consumers.

The study therefore considers and identifies the organisational assets, culture and capabilities that created the most successful Internet retailing operation for digital
music and in so doing reveals how to incorporate and harness disruptive technology for commercial gain within the established recorded music industry.

Finally, the study proposes a strategic framework for UK recorded music companies so that they can respond successfully to disruptive technologies that will in future alter their market sector, including consumer attitudes and music usage. This framework will give the record companies the opportunity to manage the impact of disruptive technologies, enabling them to adapt their business strategies and tactics to provide a service that meets consumer needs the next time an innovative technology impacts the established manufacturing and retailing paradigm.
Dedication

To Jack Kapp

The Founder of Decca Records US

His vision and ability has had a lasting impact on the recorded music industry but he did not survive to see the successful future of the industry he resurrected.

His skills and knowledge would have assisted the recorded music industry when it faced the disruptive innovation of the digital music file distributed via the Internet, had his legacy been more widely acknowledged.
Acknowledgements

Although the work of one author, no dissertation is completed in isolation. There have been many people who have assisted the completion of this research.

Above all I am indebted to my tutorial team of Professor Allan Barrell and Dr John Beaumont-Kerridge. Professor Barrell’s passion for research into innovation always provided inspiration for further investigation and analysis. And I have greatly valued Dr JBK’s robustness of thought and process and his belief in my ability as an “academic” researcher despite my protestations of being a “practitioner.” Throughout my studies, Professor Devi Jankowicz has provided guidance and advice on how to articulate successfully my contribution to knowledge. Meanwhile, Maureen Daley has provided support in navigating the processes and protocols of the University.

This research could not have been conducted without the cooperation of the Respondents, whom I thank for their time and willingness to expose their own failings as an industry.

I am grateful to the friends I have made through entering the University world and to those old friends who understood my limited spare time as I immersed myself in research whilst continuing to work full-time. Finally, I thank my wife Alix, who has listened to my thoughts and proofread my text to ensure that I had confidence in what I thought and how I expressed it.
Author’s Declaration

I declare that this thesis is my own unaided work. It is being submitted for the degree of Doctor of Business Administration at the University of Luton. It has not been submitted before for any degree or examination in any other University.

Roger Murray Holdom

9th May 2006
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Chapter 1 Introduction

In just over 100 years, domestic enjoyment of recorded music has gone from being an “affordable miracle” for the consumer (Coleman, 2003, p.2) to “the only true mass medium” (Robinson, 1986, p.33). These 100 years of market evolution have transformed the creation, distribution and sale of music recordings into a US$33 billion industry globally, with the UK marketplace generating in excess of US$3 billion annually (www.ifpi.org).

The UK recorded music industry is artistically a distinct marketplace, but technologically it is impacted by global developments that challenge the established paradigms of retail and distribution. The recording industry’s introduction and management of new audio formats such as the long playing 33rpm album, audio cassette and compact disc (CD) has established the record companies as the “distribution gatekeepers” of physical audio formats (Holst, 2000, p.51). They have historically influenced the market through the control of access to new audio formats (Denisoff, 1986) and the structures for distributing these physical audio formats (Hirsch, 1977). But these traditional levers for success and control over the consumers and retailers of recorded music have been challenged. Alderman (2001, p.1) defines the recorded music industry as enjoying “success set against a backdrop of an industry struggling to maintain control and be relevant.”

At the end of the 20th Century, the Internet’s mass market impact on established industries challenged numerous organisational structures and disintermediated industries as new products and processes were adopted by consumers (Lindstrom
and Andersen, 2000, p.133). For the recorded music industry the advent of the Internet has been described as "a relentless series of wrenching headaches and embarrassing mistakes" (Alderman, 2001, p.1).

1.1 The Internet and the Recorded Music Industry

The creation of the Internet as a global digital communications network combined with the availability of digital music via the CD turned "the Internet into a universal library of music" (Alderman, 2001, p.108) and "every computer into a small file server, linking all the participants together into a giant directory of digital music" (Alderman, 2001, p.102). The ability to distribute music over the Internet caused Merriden (2001, p.1) to comment that the Internet has "changed the world of music; its impact has unleashed irresistible forces." The recorded music industry was suddenly faced with a new technology that had grown quickly from a fringe technology, which it initially thought it could ignore or curtail, to a potent disruptive force.

The music industry had failed to understand the consequences of the digital music file and its distribution via the Internet as a technology disruptive to the existing industry paradigm. For the established recorded music manufacturers, fresh from the hugely successful CD boom of the 1990s, the challenge was to regain control of the industry after digital music had "exploded into the public consciousness" (Liebowitz, 2003, p.1). The "companies that had succeeded in their business were the large ones that had the best hold on the entire market [distribution] chain and they attempted to suppress the market, partly by controlling supply" (Ghosemajumder et al., 2002, p.2). In the new Internet era,
the major labels' continued desire for control of the marketplace had left them unable to move forward for fear of losing advantage to one another (Young and Simon, 2005).

1.2 The Impact of Apple Computers

In 2002, the recorded music market was suffering from the global interest in digital music file distribution and illegal sharing of music via the Internet (Menn, 2003). The industry was in decline with total revenues down more than 10% globally and 3% in the UK (www.ifpi.org) and it was crying “piracy” over the millions of songs being swapped.

However, Steve Jobs, the CEO of Apple Computers, believed that people wanted to be honest and to pay for their music (Young and Simon, 2005, p.288-289). Steve Jobs created the iTunes music retail website to meet this need. He felt that a viable commercial proposition for music consumers was a “turning point for the music industry” (Young and Simon, 2005, p.293). In under three years, Apple progressed from the launch of the iTunes operation in April 2003 (www.bbc.co.uk) to selling the 1 billionth iTunes download on 24 February 2006 (Hickman, 2006, p.1).

Peter Lewis, reported in Young and Simon (2005, p.293), described the achievement of Steve Jobs as “almost single-handedly dragging the music industry, kicking and screaming towards a better future.” Similarly, Young and Simon (2005, p.296-297) observed that Steve Jobs had managed to take on one of the most entrenched industries at a time when the recorded music industry was in “a paroxysm of shrinking revenues, downsizing work forces” and under the threat
of extinction, and had succeeded in making the iPod and iTunes “the Walkman of the twenty-first century.”

1.3 **Aim of the Research**

The aim of the research is to explore the factors that influenced the reaction of the established recorded music manufacturers when faced with the commercial opportunity of digital music files distributed via the Internet. The research seeks to analyse why the established record manufacturers failed to embrace the opportunity and lost control of the digital market owing to their failure to understand the disruptive impact of the innovative technology.

The research will clarify whether the digital music file distributed via the Internet can be classified as a disruptive, as opposed to sustaining, technology. Then the research will identify the organisational assets and capabilities of the incumbents that allowed the Internet opportunity to become a threat to the industry, and the conclusions that may be drawn from that.

The research also seeks to investigate the organisation that identified the opportunity and was able to exploit commercially the technology that had disrupted the traditional recorded music industry’s business model. The success of Apple Computers in the retail of digital music files stunned the incumbent manufacturing and retailing organisations and iTunes is now the dominant online retailer for digital music files, operating in 21 marketplaces across the globe (www.apple.com). This achievement occurred in spite of the scepticism of the incumbent recorded music industry before the launch of iTunes as to how Steve Jobs could achieve what the recorded music industry had failed to do; Apple’s
small market share as a computer hardware and software retailer was even cited as an indicator of Apple’s likely inability to succeed (Young and Simon, 2005, p.291). The research will identify the factors (assets, culture and capabilities) that enabled Apple Computers to succeed with the iTunes proposition, and the conclusions that may be drawn from that.

Finally, to complete its significant contribution to the enhancement of professional practice in the recorded music industry, this research seeks to construct a strategic framework that will assist in the identification of and successful response to innovative technologies that will disrupt the retail paradigm of the recorded music industry in the future.

1.4 Research Objectives

The aims of the thesis have been summarised into three Research Objectives, which are set out below:

**Research Objective One**

*The factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.*

**Research Objective Two**

*The factors that created a retail proposition for digital music files distributed via the Internet.*
Research Objective Three

The development of a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.

1.5 Outline of Thesis

This chapter has introduced the technological and retail challenges posed to the recorded music industry by digital music files distributed via the Internet. The recorded music business and the wider media and entertainment industry are now keen to understand how to identify and manage technological innovation that is likely to disrupt established retail paradigms in the future.

The thesis will examine technological innovation through the application of theories that identify the assets, culture and capabilities that help or hinder organisations when dealing with market change. This will enable the development of a strategic framework for success within a marketplace disrupted by innovation.

The thesis is divided into seven chapters:

1. Chapter One has provided an introduction to the sector and described the focus of the research.

2. Chapter Two describes the industry background, highlighting how the music industry has adapted and grown in the face of the challenges of technological and economic change that have sustained and disrupted its marketplace.
3. Chapter Three is a review of literature on change and disruptive innovation from new technologies. The theories discussed assist organisations in managing and prospering from innovative technology.

4. Chapter Four is a summary of the research methodology used in the thesis, covering the research design and techniques used to address the identified Research Objectives.

5. Chapter Five presents the results of the primary data collected for the research, structured in the order of the Research Objectives.

6. Chapter Six discusses the results presented in Chapter Five within the context of the academic theories on change and innovation reviewed in Chapter Three.

7. Chapter Seven presents the conclusions of the research drawn from the discussion of the Research Objectives in Chapter Six, and ends with the strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.

1.6 Summary

The recorded music industry has grown over the last 100 years to become a multi-billion dollar industry. During that history, consumer audio formats have been a changing element of the business model and, although perceived as essential to controlling in the industry, the incumbent organisations have been accused of losing control with the advent of the latest audio format, the digital
music file distributed via the Internet, which has challenged the established retail paradigm.

The incumbent recorded music manufacturers and retailers failed to structure a viable business model for the digital music marketplace and were sceptical that the innovative technology could be profitably exploited. Meanwhile, Apple Computers decided to enter the music retail marketplace, of which it had no previous experience, with a digital music proposition. The outcome of this adoption and application of innovative technology by Apple was the creation of the dominant Internet music retailer and distributor, in the form of Apple’s iTunes.

The aim of this thesis is to establish answers to the questions of:

- Did the innovative technology of the digital music file distributed via the Internet disrupt the incumbent organisations in the recorded music industry?

- What were the assets, culture and capabilities that contributed towards the incumbent organisations missing the commercial opportunities of the innovative technology?

- What were the assets, culture and capabilities of Apple Computers that enabled it to develop a successful business model and become the dominant global digital music file retailer?

- Finally, what are the assets, culture and capabilities, within a strategic framework, that the incumbent recorded music organisations need to have
to be assured that they can identify and develop business models to
benefit from the application of innovative technology in future and ensure
that it does not disrupt them but instead lead to further commercial
success?
Chapter 2  Background to the Recorded Music Industry

2.1  Introduction

This chapter provides a history of the recorded music industry researched from journal articles, books and commercially published magazine articles.

The purpose of this chapter is to demonstrate that the recorded music industry since inception has been an industry that has been influenced by economic and technological changes that have created both opportunities and challenges. Managing innovation has therefore been a constant feature for the industry, and the new digital propositions are merely another phase of the industry's development. The actions that the recorded music industry has taken to overcome the challenges of change in the past can be considered as relevant to the development of the strategic framework to manage disruptive innovation in the future.

2.2  The History of Music Recording Formats and Distribution

2.2.1  Invention – the Wax Cylinder

On 24 December, 1877 Thomas Edison applied for a patent for his cylinder phonogram (www.uspto.gov). The achievement of patenting the cylinder phonogram was a major step towards Edison's dream that "some day in the distant future there would be a talking machine in every home" (www.thomasedison.com). By 1896 the enjoyment of records had "evolved into a major phenomenon" (Kenney, 1999, p.xi). For the five years between 1914-1919, the number of phonograph disc manufacturers in North America grew at a rate of
44% per year (Alexander, 1994b, p.117). (The European market was not in a position to mirror this growth owing to World War I.) The majority of the new disc manufacturing companies were small independent companies popularising recordings of genres such as Jazz, Blues and Rhythm and Blues (Sanjek and Sanjek, 1991, p.15). This liberalisation of the US manufacturing supply chain increased choice in phonogram players and music discs. Coleman (2003, p.24) stated that in 1918 there were 166 companies in the United States of America producing over $158 million worth of one dollar phonogram discs of music and speech entertainment creating a highly competitive and dynamic record industry.

2.2.2 Disruption – the Radio

In the 1920s, recorded music sales were growing but the launch of radio services created an immediate concern to the industry. Kenney (1999, p.124) stated that “the arrival of radio broadcasting in 1922-23 sent the entire record business reeling.” By 1926 the BBC was providing entertainment and news to one-quarter of the nine million homes in the UK (www.odpm.gov.uk/dwellingstock). In the United States, it took just 7 years from 1920 for radio ownership to reach one in three homes (www.msn.encarta.com). The growth of radio ownership in the 1920s and 1930s was the “Golden Age of Radio,” as radio became the first global mass broadcast medium (Lindstrom and Andersen, 2000).

Radio’s free entertainment offering had a dramatic economic impact on the music business (Kenney, 1999, p.158); Coleman (2003, p.38) described radio’s free entertainment cavalcade as “killer competition.” The innovative smaller record labels could not survive radio’s impact and either ceased trading or were
subsumed into the original disc manufacturing companies, (Alexander, 1994a; Alexander, 1994b). Coleman (2003) reported that the disc market of 1929 was just $50 million in sales, down from $158 million in 1918. The number of record companies in the USA fell by nearly two-thirds in the space of just 10 years (Table 2.1).

Table 2.1  Number of Disc Manufacturers in the US, 1919-1929

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Disc Manufacturers (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>166</td>
</tr>
<tr>
<td>1921</td>
<td>154</td>
</tr>
<tr>
<td>1923</td>
<td>111</td>
</tr>
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<td>1925</td>
<td>68</td>
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<tr>
<td>1927</td>
<td>60</td>
</tr>
<tr>
<td>1929</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Alexander (1994b, p.117)

Disc and phonogram manufacturers suffered also from the economic impact of the Great Depression so that by 1930 “manufacturing of record players had all but ceased” (Coleman, 2003, p.38). In 1932, the worst year of sales for the recorded music industry was recorded (Coleman, 2003) with just 6 million discs sold. Time Magazine (Anon, 1939) reported total revenues for 1932 of just $2.5 million. In the early 1930s it was clear that the recorded music industry needed to evolve from the original Edison-era business plan.

2.2.3  Regeneration – Decca Discs and the Jukebox

Led by the Decca record label in the US, the recorded music industry adopted a business strategy to create a market proposition that would resonate with both music consumers and risk-averse retailers. According to Time Magazine (Anon, 1939), Decca’s regeneration strategy was to sell “good 35 cents records” at a time
when the recommended retail price was $2 per unit. Decca even offered music consumers “three Decca discs for a dollar” (Kenney, 1999, p.164) driving volume whilst making Decca discs popular among retailers by offering a 40% gross profit margin (Coleman, 2003) on each disc sold. The Decca discs were sold in small attractive inventory packs (Anon, 1934). Decca also ensured that these sales displays of high grossing discs were located at any and every related retailer so that any possible consumer was near a recorded music merchant. Decca US also concentrated on the top entertainers and ensured that their recordings were of high production quality, contagiously catchy and very memorable (Kenney, 1999, p.171).

The second arm of the regeneration strategy targeted the proprietors and customers of the new legal taverns. In the taverns, music was provided by the new Rudolph Wurlitzer Company jukeboxes. The jukebox market was in itself a new sales opportunity that would lead to the purchase over 300,000 records a week between 1933 and 1937 (Kenney, 1999). Jukeboxes also represented a new disc sampling channel, challenging the control of the radio station programmers, that allowed recorded music to be sampled by adults across America, which in turn drove sales among consumers (Kenney, 1999).

2.2.4 The Post-War Boom – the Vinyl Album

The phonographic industry consolidated in response to the challenges of the 1920s and 1930s but was boosted by World War II. In 1945, the immediate declassification and release of ground-breaking and hitherto top secret technology provided a tremendous boost to the industry. The technology associated with the
recording and playback of music achieved another leap forward improvement through High-Fidelity (Hi-Fi) technology, although the fundamental retail trading paradigm, covering the distribution logistics of physical formats and the power relationship of retailing, was unchanged (Coleman, 2003, p.55).

By 1948, the plastics industry had developed a new multi-purpose thermoplastic called polyvinylchloride (PVC). The malleable, pliable and durable product characteristics of PVC were easily incorporated into the production of high quality audio long playing (LP) albums (ColumbiaElectronicEncyclopedia, 2004). The new manufacturing technology sustained the current industry distribution structures but the new recording equipment lowered the barriers to entry of the music recording professions (Coleman, 2003, p.55). This new recording technology increased the number of high quality recording studios, creating an unprecedented rise in independent record companies (Holst, 2000, p.41). The independent labels opened up new music genres, increasing consumer interest and creating a golden age for the music recording industry (Martland, 1997). Alexander (1994b, p.120) detailed how in 1948, four major recording companies recorded 75% of all records sold but by 1962, the situation had reversed and independent labels had a 75% market share of records sold.

However, the independents needed the major labels’ manufacturing and distribution infrastructure. Physical distribution of music for retailing to the public was still controlled by the established traditional organisation of the major record companies (Sanjek and Sanjek, 1991). The major recording companies’ control of the distribution channels to music retailers represented a commercial
advantage as a “distribution gatekeepers” (Holst, 2000, p.51). The major labels recognised the artistic agility and creative success of the independent record companies (Burnett, 1996, p.61) but by 1975, through this control of the manufacturing and distribution, and hence the independents’ cash flow, major companies were able to regain control of the creative elements of the recorded music ecology (Alexander, 1994b, p.120). The major labels had grown stronger by increasing focus on creativity in artists and repertoire to ensure this area was as strong as the control over the manufacturing and distribution (Holst, 2000).

2.2.5 Portability and Piracy – the Audio Cassette

Consumer technology improvements enhanced the quality of domestic audio playback, stimulating the sales of technology and the new long playing recordings. Then in 1965 a whole new technology further extended the quality of domestic playback of recorded music. The audio cassette was invented and launched globally by Philips which actively licensed this technology to record companies (www.philips.com). By 1968, Philips had licensed 85 different manufacturers and by the end of the 1960s, the Philips compact cassette had become the standard “home use” audio format (www.philips.com).

The cassette format was novel because it would be the first format to challenge the music industry’s control of recording duplication. The cassette enabled consumers easily to duplicate high quality audio copies of recordings on domestic equipment (Coleman, 2003, p.160). The music consumer could now record albums to blank cassettes and enjoy high quality audio on the move in the car or freely give the cassette recording to friends for their enjoyment. The oligopoly of
recorded music companies faced the challenge for the first time of a growing industry of "pirate production" of illegal cassette copies of albums. These home recordings represented a threat to the profits and control of the major labels (Coleman, 2003, p.161) as high quality consumer duplication of albums "liberalised the recorded music market" (Coleman, 2003, p.153). At this time, home-taping was perceived as a greater threat to the recorded music industry than any other competing technology or entertainment format. By 1983, the United States Senate Subcommittee on Patents, Copyrights and Trademarks was investigating the impact of "domestic pirate cassette recordings" (Liebowitz, 2003, p.1).

However, the threat to the music industry of home-taping on cassettes was soon to become irrelevant as the audio cassette was almost extinct as a major recorded music format within five years. This dramatic change in the music market structure was a result of consumers' rapid adoption of a new, even higher quality recorded music technology format – the CD. It sustained the influence and control of the music industry's major labels through their physical distribution networks and hence manufacturers were keen to promote it to retailers and consumers (Burnett, 1996, p.94).

2.2.6 Domestic Digital Music – the CD

The introduction of the high quality CD (compact disc) in 1982 (Coleman, 2003, p.164) made domestic duplication seem very low level and undesirable. The oligopoly of manufacturing companies regained control of the manufacture and distribution of recorded music. They also had control of the consumer
relationship and the price point of music recordings through a new technology, but one that utilised their existing distribution infrastructure sustaining their distribution advantage.

2.2.7 Digital Delight then Destruction – the Music Download

CD sales boomed and boosted the recorded music industry’s sales and profits, Appendix A, (www.ifpi.org). However, this decade of sales and profits was deceptive. The recording and distribution of digital music on CDs, whilst representing the answer to the challenge of the cassette, was also the foundation of the next major commercial challenge for the global music industry: “the CD was a curse disguised as a blessing. The dammed things were booby-trapped, like a Trojan horse” (Coleman, 2003, p.177). Volokh (1995) predicted the effects of digital music recording some four years before the popularisation of the Internet. Volokh (1995) wrote that the music industry would undoubtedly need to incorporate a new virtual recorded music format to deliver digital content directly to consumers electronically.

“Digital packets are replacing physical packages” wrote Griffin (2000, p.239) as digital music on the Internet is not a physical format, like a CD, it is just digital information. Patterson and Lord then created the first online opportunity for sharing digital music (MP3) files. This technology was not in the mainstream of cultural consciousness and searching the Internet for MP3 music files was not an immediate or reliable way to locate music (Menn, 2003). This issue was identified by Shawn Fanning who realised “that people were eager to trade music files on the Internet but finding good music proved to be the headache”
(Alderman, 2001, p.102). Fanning wrote his Napster software music search programme to locate and efficiently deliver free music files to any computer requesting a search. However this programme put Fanning “on a collision course with a billion dollar industry with a highly developed, very expensive distribution system” (Alderman, 2001, p.103).

Napster very quickly “brought panic to the music industry” (Young and Simon, 2005, p.270). By June 2000, just 12 months after the Napster programme was launched, the major record labels wanted to close down the programme as it was a system that distributed music that had no need for manufacturing plants, warehouses or trucks. The Napster programme also connected a new animated community of music file sharers that would not be silenced by a court order. As Alderman (2001, p.157) said of this 50-70 million strong pressure group “it was hard to see them going away … someone messing with that group would hit a nerve.” With the demise of Napster, the community of free music file sharers flocked to other music share websites and the next generation of software. The connection through the Internet created an independent and highly resilient free music distribution network.

The recorded music industry realised that the commercial topography of the music industry had changed as a result of the Internet. Though the industry was surprised by the sudden impact on global sales, it had as early as 2000 attempted to develop a business model that would incorporate digital distribution (Brown, 2000). However, fundamentally, the music industry had also wanted to sustain their profits and oligopolistic position. The recording music industry’s creation of
a subscription business model for music (PressPlay and MusicNet) was an inadequate reaction to the ubiquitous nature of digital music on the Internet (Merriden, 2001, p.111). The business model was a structure that neither the recording music industry nor consumers were accustomed to or appreciated. But, as Peter Drahos, quoted in Rainsford (2003), stated, the threat of the evolution of the Internet “was not so much to the entire industry as to individual players who did not want to lose their position of dominance.” The authoritarian oligopoly that had governed music distribution for decades had shifted.

The major labels’ attempts to solve the issue of legal downloads at a reasonable price and without restrictions became a game of one-upmanship and in-fighting (Leonard, 2003, p.49). Steve Jobs, the CEO of Apple Computers, decided to capitalise upon this indecision and to do something about the global demand for flexible digital music (Young and Simon, 2005). The solution to the recorded industry stalemate was for Apple to create a digital music store, iTunes, which would change the way digital music was distributed and sold on the Internet. iTunes presented a clear convention on how music files would be used, which was fair to companies and priced attractively for consumers. Steve Jobs’s intervention was described by Roger Ames, CEO of the Warner Music Group, as the “most promising legal music digital music service on the market” (Leonard, 2003, p.48). Universal Music’s Barney Wragg, quoted in Adegoke (2004), stated that the music companies felt that they were “seeing a new distribution and consumption model” and that “the new services are going to be a small and profitable share of the business for the next three to five years.”
The recorded music industry was in “a massive transition. Almost everything you can think of is being rethought” (Hall, 2004, p.2). This was illustrated by the statement by the Official Charts Company (OCC) in 2004 that “the rapid growth of legal download music sites has shown the music industry that downloading is the future.” The popularity of the new format had created “fundamental change” in the global music industry (Evangelista, 2005). Peter Jamieson, Chairman of the BPI, stated in July 2005 that the public’s embrace of the legal digital download services and formats had now emerged into the mainstream. Downloads were becoming commercially more profitable for the music industry than traditional formats (www.bbc.co.uk, 11 July, 2005).

2.3 Summary

This history of the music industry has shown repeated waves of sustaining innovation and also two incidences of more severe challenge caused by the disruptive innovations of radio in the 1920s and the Internet download in the 1990s. The waves of innovation have challenged the industry to manage the recorded music ecology and to remain relevant to the consumer. Alderman (2001, p.1) summarised the history of the industry as enjoying “success set against a backdrop of an industry struggling to maintain control and remain relevant.”
Chapter 3 Literature Review

3.1 Introduction

Chapter Two described the history of the music industry and the disruptive impact of the new digital technology on the established manufacturers and marketplace. This Literature Review focuses not on the issues of the recorded music industry in specific terms but on existing research into change in organisations in general and theories for identifying and managing change as a result of innovative technology. These theories define innovative technology that creates opportunity but also disrupts the established products and processes of the incumbent businesses. The Literature Review will consider and summarise journal articles, papers, books and commercially published magazine articles to chronicle and comment upon theories of organisational change and specifically the latest research and theories into change driven by technological innovation. The chapter will also review the small amount of existing research into the recorded music industry as a sector, in particular research into the new technology of digital music files distributed via the Internet. To conclude, the Literature Review will also identify the current deficiencies in existing research into managing technological change in the music industry.

The Literature Review will then be used as a basis for constructing the Research Objectives for this study that will produce conclusions that will contribute to professional practice in the recorded music industry in the area of management of change owing to technological innovation.
3.2 The Inflexibility of Organisations and Industries to Change

Coch and French (1948) stated that frequent changes in people’s work structures and culture are necessary to maintain pace with technological innovation. They also stated that frequent changes in organisational structure, technology and working practices are important to ensure ongoing competitive advantage for a company. However, after 50 years of continuous research into change and the management action needed to change successfully the structure, strategy and culture to ensure commercial competitive advantage, change within companies and markets is still considered so difficult that it is a miracle if it occurs successfully (Kanter, 1983).

Fear of change arising from new technology, e.g., new products or distribution systems, impacts all industry sectors. The business-wide impact of the application of new technology and new disruptive trading paradigms is described by Heifetz and Laurie (2001) not as change but as a “radically altered environment,” i.e., an environment where the established order of business is threatened. Therefore any industrial sector, including the recorded music industry, needs to be continuously vigilant for new products and processes challenging the “traditional understanding” of distribution and retail relationships. All industries need to comprehend the specific changes that need to be made to meet the challenges of innovation and how to adapt the organisational structure and culture to achieve the greatest benefit. The level of innovative challenges are substantial and are described by Heifetz and Laurie (2001, pp.131-132) as transformations that have an effect on “societies, markets, customers, competition and technology around the globe.”
Kotter and Schlesinger (1979) noted that most organisations need to undertake moderate change once a year and major change every four to five years. This acceptance of frequent change should ensure that an organisation is in a flexible cultural state, ready to accept and embrace innovation and change. Moderate change is just a threat “which pumps up the adrenaline needed to generate energy, funding and other resources. But managers who feel too threatened may overreact desperately defending the existing business models and resisting attempts to integrate the innovation” (Christensen, 2002, p.2).

However, Hosking and Anderson (1992) stated that fear of, or resistance to, any form of product or environment change is a rational human response, made greater by the scale and perceived control the organisation and the individual has over the impact and speed of change. King and Anderson (1995) also stated the principle that this fear and resistance to change is justified, fair and logical. The level of fear and resistance depends upon individual value judgements.

These apprehensive judgements are informed by the perceived threat, impact and swiftness of the change, and the ongoing impact of change on all stakeholders throughout the established value chain. Creating a change-embracing environment therefore requires the ability to create and manage a company committed to change, with no fear of change, and flexible enough to be change-capable.

Wilson et al. (1986) stated that organisations become opposed to change and inflexible when a substantial shift in the power balance of the culture or operation seems a likely outcome whatever the company does to combat change. This
organisational inflexibility causes stakeholders to defend their current position resolutely.

This staunch defence of the established paradigm goes against the advice of Moore (1998) whose perspective on established organisations is that “the new rules of competition say that the winners in older markets should be the first to cannibalise their current products.” Therefore the most successful companies should be the first to embrace the new technology and bring it to market rather than attempt to eradicate the new ways of working to protect the established company’s traditional products and processes. However, organisations do not tend to cannibalise their existing products when faced with what Wilson et al. (1986) defined as out-of-the-ordinary change. In the majority of organisations, the institutionalised fabric tenaciously resists change when something out-of-the-ordinary happens.

Wilson et al. (1986) even defined four out-of-the-ordinary occurrences for organisations to assist them in identifying when change is needed. These are:

1. New technology to which the organisation is unaccustomed;

2. Conflict between powerful stakeholders (inside and outside the organisation);

3. A topic or area that the firm has never encountered before; and

4. An unexpected new idea which breaks through the traditional channels.
These four elements can each be identified in the innovative technology of the digital music file and its distribution via the Internet. So, how should companies manage out-of-the-ordinary change when driven by technological innovation?

3.2.1 Technological Innovation
Scarborough and Corbett (1992) said that any technological innovation that requires a radical change in organisations is very challenging and provokes strong reactions. Incumbent companies flexible to change may decide to incorporate new processes to benefit from the advancement of technology within the marketplace. Equally, the incumbents may apply resources (legal or physical) to reject the innovative service arrangements and technology. This restraint of new technology will arise from attempting to maintain the existing business structures, relationships and practices until this can no longer be sustained as a commercial business model, delaying change for as long is possible.

3.2.2 Pattern of Failure to Change
Christensen et al. (1998) focused on this management strategy to obstruct and impede the adoption of new technology and identified a persistent pattern of failure to change or adopt new working practices among sector-leading firms. Christensen et al. (1998) state that established companies can create a culture of technological blindness or undertake a myopic approach towards technological innovation in their marketplace if that technology fails to support the established companies and value chains.

Christensen et al. (1998) state that the biggest issue for sector-leading firms when faced with new technology is not having the right innovation-supporting culture
or a values network that supports investigation into products that challenge the established business model. Pateli and Giaglis (2005) observed that although change has long been documented in academic literature, it is only recently that business model change has gained significant attention.

King and Anderson (1995, p.169) state that any innovative development that challenges the established business model for companies is “resisted because of powerful vested interests in maintaining the current equilibrium position.” Moore (1998, p.xii) states that “the leader in the old market is the last to change because they have the most to lose” as new business plans would impact margins and income from established capital investment programmes and therefore investor returns. So the established companies try to protect the current business model and investment. The lack of capacity to embrace innovative change and the myopic strategy towards development are created by a near exclusive focus on existing distributors, customers and revenue streams (Christensen, 2000). This focus on immediate business models and commercial relationships is combined with a lack of interest or even fear of low profit but developing areas of business. This refusal to embrace new technological applications is an internal culture that rejects products, distribution or retail that could have a fundamental effect on the customer relationship. There is no desire to investigate a new market technology topography, including distributors, retailers and consumers, and hence to understand the company’s long-term changing revenue streams and profitability.
3.2.3 Replacing Dominant Logic

Innovative products or services that disrupt the structure of the established market and relationships are difficult to introduce. This is not because of the technology but is due to the power of existing relationships that control the market. The majority of stakeholders in a market are usually reluctant to update skills and change attitudes even if their established processes are being disrupted. Christensen and Overdorf (2000) are referring to this reluctance when they state that “a company’s abilities also define its disabilities.”

According to Bouwen and Fry (1991), the only way to overcome this debilitating resistance to embracing innovative technology is significant restructuring of the cognitive schemas and knowledge maps of all the various organisations active in the market. The creation of new cognitive schemas, creating a new structure of co-existing relationships, will remove the tension (fear or reluctance to embrace innovation) and create a new retailing paradigm.

The creation of new cognitive schemas is the central tenet of cognitive constructivism as defined by George Kelly (1963) in his *Psychology of Personal Constructs*. Kelly pioneered the idea that respondents do not perceive ideas directly but that experience of events is built up through templates. These templates, or personal constructs, are sets of categories that are constructed by the individual to organise the perception of events, to give them meaning and decide how to react to the new schemas being offered. Kelly (1963) also defined the mechanism of sociality, where one person’s constructs may also influence another person’s constructs used to organise the perception of an event or the new
schemas. This sociality is the mechanic that enables key individuals to influence an organisation’s decision to embrace or dismiss the value of a new schema.

The development of a new cognitive schema is usually achieved during the period of market uncertainty between the established dominant logic (the existing mindset or model of running a business within the established value chains) and the new emergent logic from pioneering manufacturers and retailers utilising the new technology. The new cognitive schemas demanded by the pioneering management, which will govern future action, are based on embracing the new technology. Emergent logic leaders during market innovation will challenge accepted values. Leaders must radically realign structural patterns and establish new working practices to support and succeed in the new marketplace (Bolman and Deal, 1999). This must be undertaken to establish the new retail paradigm between the market and consumers. This will succeed in changing the culture, values and processes of the company and the relationships with the current stakeholders.

The shift to embrace the emergent logic (being challenged and excited by the new opportunities) can be delayed or accelerated by the organisation’s climate. Bouwen and Fry (1991) emphasise that the company culture and market vision facility are the mechanisms within the company that are either resistant or positive towards innovation. This will determine whether the company has no interest in change or seeks to embrace and profit from change at every opportunity.
3.2.4 Change and Company Culture

Child (1984) observed that structured cultural mechanisms like established values and culture are not always a negative influence on an organisation or industry. Though strong organisational values and culture can act as an obstruction to change and constrain innovation capacity, these are essential organisational behaviour characteristics during periods of stability and prolonged growth. This is a period when the focus of the organisation is not to change culture or to embrace new technology but to maximise profits through exploitation of the established products and processes.

However, during times of change, in particular enforced change owing to new market, economic or technology forces, the company's established and entrenched culture and working practices will be the dominant logic that will resist and impede change. The dominant logic becomes a substantial obstacle to change because it is built into the very cultural fabric of the organisation or industry. This dominant logic becomes the mechanism for the cognitive schemas of individuals that guide decisions and actions at a collective level, which then dominates the thoughts and logic of the entire organisation. Through this dogmatic culture matrix, the dominant logic influences the industry, as an established company or as a global trade organisation, to impede the application and adoption of innovation. Every year of commercial success reinforces the dominant logic.

This point of view is supported by Dunphy and Stace (1988) who discussed how styles and strategies change according to the specific situation, not according to
some established wisdom. They argue that change sometimes needs to be made fast and in short, sharp bursts of activity, followed by periods of consolidation. As the situation changes, so too will the strategies required. Dunphy and Stace (1990) and Stace and Dunphy (1994) further found that companies attempting to make substantial organisational change had a better chance of success when using a more authoritarian change style than if they used a more collaborative style. This is because if a company required fundamental change, it must be considerably out of alignment with its marketplace and hence need urgent action.

### 3.2.5 Radical Innovations

Owing to the strength of dominant logic in companies’ strategies, Tushman and Romanelli (1985) suggested that extremely radical transformational changes in structures and relationships occur only during periods of disruptive innovative change, creating moments of far-reaching episodic change. The episodic model of change is one of the two distinct models of change identified by Weick and Quinn (1999). In change-embracing organisations, change is described as continuous and consistent but when companies or industries have sustained periods of disruption owing to new products or processes, this leads to episodic, discontinuous or intermittent change within the organisation and market, with the potential creation of anguish across the companies afflicted by change.

Disruptive and radical innovation has enormous impact on all elements of an organisation, every business unit, every employee and all stakeholders in the market, within a relatively short time span (Carrero et al., 2000). Bolman (1999, p.6) adds an extra dimension to episodic change as it “also creates conflicts
between winners and losers – those who expect to gain from the new direction and those who do not” whether internal or external, supplier or customer. The arrival of new organisations in the marketplace adds to the overall market disruption and confusion.

3.2.6 New Perceptions, New Markets, New Players

Innovative change caused by “radical transformation in the market” is based on considerable shifts in market perception of influence by all involved in the current relationship or structure. Rind and Kipnis (1999, p.154) state that “we cannot expect to change the actions and responses of other people without causing changes in ourselves” although some organisations do expect to achieve this.

Market leaders must manage and react to change, whether it is a result of technological innovation or a change in the needs of customers. However, those who control industries have little willingness to lose market share and therefore little internal desire or capacity to embrace change. This reluctance to embrace innovation in products and procedures is because the innovations undermine the existing knowledge and skills of the industry. If organisations were managed for change they would have a culture of identifying new, potentially profitable technologies. This would be supported by the resources and processes across the organisation and sector arising from an acceptance and a desire for all types of innovation.
3.3 Christensen and Managing Innovation

The previous section of the Literature Review has identified various theories on organisational change and the impact of industry change on the various stakeholders. However, so far little has been said on research about the impact of innovative change.

The leading academic on managing innovation is Clayton M. Christensen (2000). His research has identified two types of innovative change and therefore management reaction. First, Christensen (2000) identified "sustaining innovations," which are innovations that improve the established industry or product performance. Christensen then defines a second group of innovations as "disruptive innovations." These disruptive innovations bring to markets a very different value proposition to what had been available previously, for example a proposition that is typically cheaper, simpler, smaller and more convenient to use (Christensen, 2000, p.xxiii).

3.3.1 S-curve Theory and Disruptive Innovation

For researchers attempting to identify and investigate technological change within industries, analysing sales volumes provides an indicator of imminent market change that will impact supply and demand. Christensen (1992a) utilises Foster’s (1986) S-curve theory as the first analytical step to diagnose innovation and then considers the classification of the innovation. Foster (1986) adapted the Diffusion of Innovations theory introduced by Everett Rogers (1963) to help explain the adoption of innovations. Rogers outlined five stages of the adoption process: awareness, interest, evaluation, trial and finally adoption. He also
described the Diffusion of Innovation Curve and a corresponding defined set of individual adopter types, including innovators, early adopters, early majority, late majority and laggards, each with their own location on the adoption curve. Before Rogers, the adoption of hybrid seed corn by Iowa farmers was studied by Bruce Ryan and Neal Gross (Lowery and DeFleur, 1995). They observed how the adoption rate accelerated when sufficient farmers had switched to hybrid seed corn.

Foster's (1986, p.21) S-curve theory is based on the ability "to see patterns of corporate success and failure." S-curve theory enables a detailed investigation of the growth and impact of new products or processes as they emerge and are adopted by consumers, sometimes over long periods of time. Foster's (1986) S-curve theory also reveals market inflection points, when sales peak, as well as periods of market discontinuity representing the state of confusion as the dominant product or process changes from being the incumbent organisations' to that of the innovative organisation.

Foster (1986, p.84) stated that as one technology begins to fade "it does not follow that there isn't another technology that can solve the customer's problem in a superior way. If there is an alternative, and it is economic, then the way that the competitors do battle in the industry will change." Christensen (2000, p.57) states that the "operative trigger [of change] is the slope of the curve of the established technology. If the S-curve has passed its point of inflection, so the second derivative is negative, then the new technology may emerge to supplant the established one." Therefore the recommendation for those following
Christensen’s theories is to use S-curve analysis to “identify when the point of inflection on the present technology’s S-curve has been passed and to identify and develop whatever successor technology is rising from below” (Christensen, 2000, p.46). That S-curve analysis of secondary data is the start of this thesis’s research into innovative change.

Foster’s (1986) S-curve theory represents an inductively derived theory of the market potential and the effect of technology improvement within an established marketplace through analysis of quantitative data. Within his own research, Christensen’s (2000) application of Foster’s (1986, p.44) S-curve theory was to provide an empirically-based structure to comprehend and record “the limits of technology,” to understand the impact of changing technology and the power of innovators on consumers and manufacturers within a distinct marketplace.

Foster (1986) states that his S-curve theory can be applied by academics and by professional managers. For both, the challenge is to identify the point where the S-curve of old and new technologies cross. Locating this point helps to identify new technologies threatening established markets and to switch to them. Not doing this has been referred to as the cause of failure of incumbent firms and the source of advantage for the entrant or attacking firms deploying new disruptive technology. According to Foster (1986), early adoption of new technology is the “attacker’s advantage,” as the attackers or innovators are operating the innovative technology and are seeking change and have the management value network that will create disruptive change in the marketplace.
Christensen (2000) developed Foster’s (1986) theory and conceptualised that S-curves must also represent the product’s, process’s or company’s culture because the value network will show absorption of the next technology wave or an attempt to impede development. This reflects the theories of Child (1984) on companies that embrace or impede innovation. The decision to embrace or impede change is controlled through the organisational value network that has grown with the market, product or process and in so doing defines the management’s views on managing all forms of development and change. In established organisations, the culture, structures and value networks are dedicated to develop, sustain and in the end try to prevent, or at the very least manage, the decline of the established product or process in the discontinuity period. Therefore, the organisational values will have an influence on the decisions taken when faced with a mature product and a period of discontinuity. The embedded value network, especially within the incumbent manufacturers, shapes the firm’s cost structure, and the firm’s ability to remain competitive.

It is the structure, flexibility and how the industry reacts to the market-changing innovation that form the basis of Christensen’s (2000) theories. Christensen’s (2000) theories are intended to help managers understand the culture and values that create the environment that embraces change or alternatively allows disruptive innovative technologies to assail established companies. Christensen (2000, p.46) offers recommendations on how managers can create organisations within companies that are able to develop disruptive technologies to ensure that an incumbent can actually benefit when established technology and other established manufacturers “are knocked out with stunning speed.”
3.3.2 Christensen's Value Network Framework for Innovation

Christensen (2000, p.61) identified that the industry or company value network for innovation was the major factor in understanding the ability to adopt or to be disrupted by innovation. In summary, Christensen's (2000) value network theory is based on the nature of technological change and the problems that successful incumbent firms encounter with innovation. These problems occur because:

1. The organisational values marshal and manage resource allocation to overcome the perceived technological and organisational hurdles identified through listening to customers. However, the statements and needs of the immediate customer may contradict those of the new or final customer. Ignoring the needs of the ultimate customer can impede the innovation by causing the allocation of the wrong resources to the wrong problems, as customer needs vary along the supply chain.

The organisational values may also willingly allocate resources for sustaining innovation to defend particular cost structures and revenue creation inherent in addressing customer and management needs within the current marketplace. This is rather than investigating wider opportunities in marketplaces that are currently small and do not at this time appear to have substantial potential for large companies. Bower (1970, p.274) defined this strategy of allocating resources to existing customer directed innovation as "pressure from the market that reduces both the probability and costs of being wrong." However, it fails to
identify or invest in technologies, markets and final customers’ needs that could disrupt and create new industries or markets.

2. Through existing organisational values, the incumbent firms commit resources to innovations that address well understood needs of current stakeholders within the marketplace. Therefore disruptive innovations are not supported because their value and application to the existing marketplace are uncertain, according to the criteria used by the incumbent firms and their retail channels. The ultimate uses or applications for disruptive technologies are unknown in advance or fail to have a value to the existing trading relationship.

3. The value network cannot identify any market or revenue opportunity for the new technology other than incorporation into the existing trading paradigm. Therefore it renders any new innovation irrelevant to the existing value network until it can generate revenue equal to the established retail relationships. Therefore it is not funded owing to the inability of potential revenue identified to equal the established retail paradigm.

This is because the incumbent management listens carefully to established customers in the retail value chain and utilises resource to develop the conventional retail paradigm. However, when the new technology becomes relevant, the innovative product or process and therefore revenue improve at a parallel pace with the established technology and ultimately intersect with it to create a new dominant technology in the marketplace.
The incumbent industry is then confronted with a disruptive innovation that has developed performance attributes from other networks, while the original irrelevant performance boundaries have diminished and the innovative technology perceived as impractical and suitable only for another industry sector is now very relevant and disrupting the value chain in the established industry sector. The attributes that make disruptive technologies unattractive to established manufacturers and retailers may be their greatest value in developing a proposition in emerging markets.

4. In established value networks, new services and technologies struggle to generate any importance. As Richard Tedlow (1994, p.68) noted in his history of evolution in retailing in America (in which supermarkets and the discount retailers, e.g., Wal-Mart, played the role of the disruptive innovation), “the most formidable barriers for established firms and their value networks is that they [the retailers] did not want to do this, i.e., be in the discount market, they considered it inappropriate to their traditions and values.”

Organisations' capabilities reside in the very processes and values that constitute their core capabilities within the current business models. Therefore, the processes and values also define their disabilities when confronted with disruptive innovation.

5. The attacker’s advantage creates a value network with the ability to be offensive and develop emerging market applications and propositions.
With this focus, the attacker will develop the processes to change strategy and cost structure to ones that will work in favour of new technologies, whilst established firms have to manage the cost of change from traditional methods to the new strategy and costs structures. The attacker also develops small markets and generates sales that established industries would consider inconsequential, but are milestones for the developing business and begin establishing the new innovative technology into the mainstream.

In reviewing Christensen’s Value Network Framework (2000) it is clear that it provides dimensions for analysing technological innovation and the implications of the innovative technology for the established value network. The key considerations are whether the performance attributes implicit in the innovation will be valued within the network served and whether new value networks must be created in order to realise value from the innovation. If this happens then there is the possibility that “existing and new networks will eventually intersect” (Christensen, 2000, p.63) moving the technology from the innovative to the mainstream. It is therefore possible to analyse innovative technology to consider whether it will arrive in the mainstream as a disruptive technology or whether the innovative technology can be integrated into the industry as a sustaining technology for the established manufacturers and retailers to embrace and profit from. This is because the established players have more influence over this strategy than the new entrants do, as well as typically a greater ability to understand and manufacture any technology.
3.3.3 Christensen’s Resources, Processes and Values Theory

Christensen’s (2000) “Resources, Processes and Values” (RPV) theory is based on the “core competencies” theory (Prahalad and Hamel, 1990) on what influences the ability to adopt innovations. It also assists managers as they analyse “what sorts of innovations their organisations are and are not likely to be capable of implementing successfully” (Christensen, 2000, p.186).

RPV theory is defined by Christensen and Raynor (2003) as revealing the building blocks of a company’s capabilities and adds further explanation as to “why existing companies tend to have such difficulty grappling with disruptive innovations” (Christensen et al., 2004, p.xxvii). “Incumbent firms fail in the face of disruptive innovations because their values will not prioritise disruptive innovations, and the firms’ existing processes do not help them get done what they need to get done” (Christensen et al., 2004, p.xviii). RPV theory highlights what companies need to do to succeed when confronted by disruptive innovation and which core competencies the company requires. This includes the correct environment, personnel capabilities, mindset and resources to match or manage the challenge of disruption.
Table 3.1 Christensen’s Resources, Processes and Values Framework

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>PROCESSES</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Things or assets that organisations can buy or sell, build or destroy</td>
<td>Established ways companies turn resources into products and services</td>
<td>The criteria by which prioritisation decisions are made</td>
</tr>
<tr>
<td>2. Technology</td>
<td>2. Training</td>
<td>2. Income Generation</td>
</tr>
<tr>
<td>5. Information</td>
<td>5. Planning</td>
<td>5. Ethics</td>
</tr>
</tbody>
</table>

Source: Christensen et al. (2004)

Christensen et al. (2004) created RPV Theory by disaggregating the capabilities of an organisation into resources, processes and values (Table 3.1) and argues that “organisations successfully tackle opportunities when they have the resources to succeed, when their processes facilitate what needs to get done and when their values allow them to give adequate priority to that particular opportunity in the face of all other demands that compete for the company’s resources” (Christensen et al., 2004, p.xviii).

- **Resources** are the “things or assets that organisations can buy or sell, build or destroy” (Christensen et al., 2004, p.280). From people to relationships, access to abundant and high quality resources enhances an organisation’s chances of coping with change or innovating successfully and widely. However resources are not the only factor for evaluating the likelihood of change success or failure. Identical resources will not create identical results. The ability to transform resources into goods and services of greater value resides in the organisation’s processes and values. Resources can be summarised as “what a firm has.”
• **Processes** are the “established ways companies turn resources into products and services” (Christensen *et al.*, 2004, p.280). The internal processes are designed to support decision making, however this also perpetuates the current processes. Value creation depends upon resources being utilised to create products and services of great worth. This is accomplished through processes, whether “formal” (that are explicitly defined, visibly documented and consciously followed), or “informal” (that evolve as habitual routines, defined “as the way that things are done round here”). Both categories of process define an organisation’s ability to innovate and how they transform resources into greater value products or services. Processes are both an advantage and a danger as all processes are established to create repetitive controlled consistency in production and decision making. This means that the very mechanisms of organisations are designed to be intrinsically adverse to change. Processes can be summarised as “how a firm does its work.”

• **Values** are the “criteria by which prioritisation decisions are made” (Christensen *et al.*, 2004, p.280). The values mould the company culture and the way departments and individuals combine to meet the challenges of the marketplace. These values are the criteria by which decisions are made and help ensure that they are consistent with the strategic direction and the business model of the company. This business dimension is the one that appreciates the assessment of new revenue possibilities. Cultural values define whether new opportunities are to be encouraged and investigated or to be considered irrelevant. Values either eradicate or
perpetuate the “not invented here” syndrome for any opportunity outside of the core competencies of the company, creating a company attitude to change. Values can be summarised as “what a firm wants to do.”

On the basis of the Value Network and then RPV Theory, Christensen (2000) considers that it is not bad management that fails to identify new technology or the threat of disruptive technologies. The fault lies with good management that creates strong processes and values of “listening to customers, tracking competitors’ actions carefully. Then they invest resources to design and build higher performance, higher quality products that will yield greater profits from established conventional trading paradigms. These are the reasons why great firms stumbled and failed when confronted with disruptive technological change” (Christensen, 2000, p.112).

Christensen (2000) states that incumbent companies are very supportive of innovative technologies that utilise, if not prioritise, the existing resources, processes and values within RPV. This is because they are designed to maximise the opportunities for these types of innovations that sustain the company’s traditional business model, skill sets and working environment.

In contrast, disruptive innovations are not compatible with the company’s current structures and working environment in terms of resources, processes and values. Therefore, the overall culture is not congruent. The incumbent companies will “not prioritise disruptive innovation and the firms’ existing processes do not help them get done what they need to get done” (Christensen et al., 2004, p.xviii).  

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As Christensen and Raynor (2003, p.35) state, “disruptive innovations have a paralysing effect on industry leaders as their resource allocation, values and processes are constitutionally unable to respond.” In established firms, the dominant “values will not prioritise disruptive innovations and the firm’s processes will not help them to achieve what they need to do to react to disruptive technology” (Christensen et al., 2004, p.xix), making the incumbent manufacturers, distributors and retailers vulnerable.

3.3.4 Disruptive Innovation Theory – Principles

Christensen’s (2000) Value Network and RPV Theory highlight the impact that logic can have on innovation and change. Christensen (2000, p.293) then developed this research to identify moments of disruptive innovation. Disruptive innovations are innovations that trace a new performance trajectory by introducing new dimensions of performance compared with existing technologies. Disruptive innovations either create new markets by bringing new features to non-consumers or they offer more convenience or lower prices to customers at the low end of an existing market. Relatively simple, convenient, low-cost innovations can create growth and overcome powerful incumbents.

Christensen’s (Christensen and Raynor, 2003) Theory of Disruptive Innovation is a conceptual model of cause and effect that makes it possible to predict with more certainty the outcome of competitive battles. The asymmetries of motivation are natural economic forces that are prevalent in business at all times (Christensen and Raynor, 2003, p.55). Therefore by understanding these economic forces and managing the business, it is possible to harness disruptive
innovation. This is to create new opportunities for established manufacturers and manage successfully both disruptive and sustaining innovation.

Christensen (2000, p.xxii) found that there are five principles of disruptive technology, which he suggested “are so strong that managers who ignore or fight them are nearly powerless to pilot their companies through a disruptive technology storm.”

Principle 1: Companies depend on customers and investors for resources

Christensen (2000, p.117) states that “It is a company’s customers and investors who effectively control what it can do and cannot do ... This observation supports a somewhat controversial theory called resource dependence, propounded by a minority of management scholars, which posits that companies’ freedom of action is limited to satisfying the needs of those entities outside the firm (customers and investors, primarily) that give it the resources to survive.” As Christensen (2000, p.147) states “Customers of established firms can hold the organisations captive ... to keep them from commercialising disruptive technologies.”

Principle 2: Small markets don’t solve the growth needs of large companies

“No new markets are that large. As a consequence, the larger and more successful an organisation becomes, the weaker the argument that emerging markets can remain useful engines for growth” said Christensen (2000, p.xxxv). He continues “small, emerging markets cannot solve the near-term growth and profit requirements of large companies” (Christensen, 2000, p.139).
Principle 3: Markets that don’t exist can’t be analysed

"Sound market research and good planning followed by execution according to plan are the hallmarks of good management" states Christensen (2000, p.xxv). When disruptive innovative technology enters a market there is no understanding of how it will be used by consumers or the likely rate of adoption. Christensen (2000, pp.165-166) described the situation as follows, “markets that do not exist cannot be analysed: suppliers and customers must discover them together. Not only are the market applications for disruptive technologies unknown at the time of their development are unknowable ... Applying inappropriate marketing, investment, and management processes can render good companies incapable of creating the new markets in which ... disruptive technologies are first used” and such companies can also have “great difficulty in spotting the advent and predicting the size of new markets.”

Principle 4: An organisation’s capabilities define its disabilities

Christensen (2000, p.xxvii) states “an organisation’s capabilities reside in two places. The first is in its processes – the methods by which people have learned to transform inputs of labor, energy, materials, information, cash, and technology into outputs of higher value. The second is in the organisation’s values, which are the criteria that managers and employees in the organisation use when making prioritization decisions. People are quite flexible ... but processes and values are not flexible.” Therefore “the very processes and values that constitute an organisation’s capabilities in one context, define its disabilities in another context.”
Principle 5: Technology supply may not equal market demand

Disruptive technologies are initially developed to solve the problems of individuals who are not in the main markets, though as the technologies become accepted they subsequently become fully developed and highly competitive products or processes that challenge the conventional market and established products. “This happens because the pace of technological progress in products frequently exceeds the rate of performance improvement that mainstream customers demand or can absorb ... The basis of product choice often evolves from functionality, then to convenience, and, ultimately to price” (Christensen, 2000, p.xxvii).

3.3.5 Disruptive Innovation Theory – Consistent Characteristics

Christensen (2000, pp.xviii,xx,219-221) also describes a variety of consistent characteristics of disruptive technologies, which this thesis has structured into four key areas:

1. New value proposition: Disruptive technologies bring to the market a very different value proposition than has been available previously through the established technologies, because products based on disruptive technologies are typically: cheaper; smaller; simpler; more convenient; and more reliable. Christensen (2000, p.221) states that “disruptive technology often succeeds both because it satisfies the market’s need for functionality, in terms of the buying hierarchy, and because it is simpler, cheaper, more reliable and convenient than mainstream products.”
2. **Initially insignificant in mainstream market:** Disruptive products generally under-perform established products in mainstream markets. Leading firms' most profitable customers generally don't want, and indeed initially can't use, products based on disruptive technologies.

3. **Successful in emerging market:** But the attributes that make disruptive products worthless in the mainstream markets typically become their strongest points in emerging markets; i.e., weaknesses of disruptive technologies are their strengths. As a result, disruptive technologies typically are first commercialised in emerging or insignificant markets. Christensen (2000, pp.220-221) states “it is often the very attributes that render disruptive technologies useless in mainstream markets that constitute their value in the new markets” and the “companies that have succeeded in disruptive innovation initially took the characteristics and capabilities of the technology for granted and sought to create a new market that would value or accept those attributes” and in so doing sought “to build or find a market where product competition occurred along dimensions that favoured the disruptive attributes of the product.”

4. **Different financial model:** Disruptive products generally promise lower margins, not greater profits.

### 3.4 Managing Disruptive Innovation

Christensen’s (2000) Disruptive Innovation Theory emphasises how companies can manage resources and promote values and processes that will allow disruptive innovations to create new small markets. This, according to
Christensen (2000, p.xviii), will create opportunities "with very different value propositions than had been available previously." These new markets can grow to become a mainstream market that exists with the other established markets as a traditional product or format.

Summarising, Christensen (2000, p.197) identifies how disruptive innovation and new markets can be controlled by established manufacturers if they are prepared to change their organisational structure and, within those structures, their processes and values. This strategy will require data analysis utilising RPV Theory and then the reallocation of resources to reflect the new market, the implementation of new processes, and re-engineering or replacing the values of current organisations, or creating a separate organisation and developing within it the new processes and values that are required for the disruptive innovation. Therefore, the management could acquire a different organisation whose processes and values are more appropriate to the challenge in the marketplace.

3.5 Analysis of Christensen's Research

Christensen is currently a Professor of Business and Administration at the Harvard Business School with joint appointments in the technology and operations management and general management faculty groups. Christensen's research interest centres on management of technological innovation and finding new markets for new technologies (www.claytonchristensen).

Christensen's (2000) Disruptive Innovation Theory was developed during his study at Harvard University for his DBA. From his studies came his papers on S-curves (Christensen, 1992a; Christensen, 1992b) and then his analysis of
innovative change in The Rigid Disk Drive Industry: A History of Commercial and Technology Turbulence (Christensen, 1993). These mark the beginnings of Christensen’s focus on innovation.

Christensen’s research at the Harvard Business School has produced five books. In 1997, Christensen’s first book The Innovator’s Dilemma (Christensen, 2000) was awarded the Global Business Book Award. It has sold over 200,000 copies and been reprinted several times, and has assisted in elevating Christensen to the level of “business guru” (Scherreik, 2000; Walton, 1999). In 1997, George Gilder reviewed the Innovator’s Dilemma in his online Gilder Technology report as one of “the most profound and useful books ever written about innovation.”

Christensen has continued to contribute to debate on innovation and change, and in less than a decade has had published 37 articles in the Harvard Business Review and MIT Sloan Management Review, five books, five book chapters, 11 papers and over 100 Harvard Business School Notes and Case Studies for various courses covering his research speciality.

Christensen’s theories and analysis on technological innovation have also been cited in c.750 published journal articles since 1997 with Christensen’s first book The Innovator’s Dilemma (Christensen, 2000) being cited in over 300 of those articles (www.isknowledge.com).

Christensen’s success and his disruptive innovation theories have however been challenged (Danneels, 2004). Chesbrough (2001) reassessed 16 empirical studies by Christensen on disruptive technology and commented that the studies were inconsistent and lacked identical criteria to define the various types of
technology. The issue of when to label technology disruptive also concerns other researchers. Charitou and Markides (2003) framed their definition of disruption by saying that a technology's disruptive impact can be only relative to the ability, resources and markets of the established and innovating firms promoting the technology. This is similar to the assertion of Tushman and Anderson (1986, p.464) who defined that disruption is only a conceptual or subjective description, as the technology will appear as either "competence-enhancing or competence-destroying technological shifts" and therefore it is the shift that is the disruptive element not the technology itself. Chesbrough (2001) noted that Christensen's theoretical focus is on the internal factors impeded or advanced by the technology rather than on accessing the external factors that impeded or accelerated the disruptive technology.

Christensen's research topics and case studies have also been challenged as being selective and that disruptive technologies do fail to change markets (Cohan, 2000). Though Christensen never states that all disruptive technologies succeed, the deficiency of research into those disruptive technologies that fail to supersede the incumbent technology and incumbent commercial organisations, does highlight analytical issues (Finkelstein and Sanford, 2000). As the impact of disruptive technology is inconsistent it is understandable that, when faced with disruptive technologies, incumbent firms are often dismissive of the "disruptive technology" label as the disruptive technology may never develop to perturb the current market sector and established firms (Danneels, 2004). The inconsistent impact of new products and processes categorised as disruptive technology is also discussed by Doering and Parayre (2000) who argue that the label of disruptive
technology is difficult to apply as the truly disruptive can be acknowledged only when the market has seen the impact of the technology and the consumers are using the new technology. A lack of consumer interest in a new product or process leaves the technology redundant rather disruptive.

Christensen's application of S-curve theory, as developed by Everett Rogers (1963), Foster (1986) and Utterback (1994), has also been criticised. Sood and Tellis (2005, p.152) describe empirical support for various aspects of the S-curve as "scattered" and state that "using the S-curve to predict the performance of a technology is quite risky and may be misleading" (Sood and Tellis, 2005, p.164) because, they say, most technologies do not follow an S-shaped performance curve whilst others show multiple S-curves, and ignorance of this can lead to a premature abandonment of promising technology. Sood and Tellis (2005, p.164) therefore suggest that the incumbent manufacturers and retailers "need to explore R&D options on multiple dimensions to react appropriately to threats posed by entrants."

King and Tucci (1999; 2002) opposed Christensen's claim that established firms challenged by disruptive technology are forced to leave that market sector or to close down. King and Tucci (1999; 2002) stated that companies serving multiple markets with multiple products are capable of creating new markets with new technology. These companies are enhanced not disrupted by new technology and have the multiple product lines and associated resource allocation protocols to manage the change in market and consumer trends.
In addition, Christensen’s (2000) perspective that established firms have an indolent or myopic attitude to new technology has been challenged. Chandy and Tellis’s (2000) analysis found that Christensen’s perspective of the “incumbent curse to disruptive technology” in their opinion had been exaggerated. Klepper and Simons’s (2000) study of television manufacturers found that the majority of companies had originally produced radio sets and had evolved their production lines to manufacture television sets as sales of television sets grew to the detriment of radios. However, there is discussion as to whether this innovation was disruptive or instead the development of a sustaining entertainment product with new technology, i.e., equivalent to the development from vinyl albums to audio cassettes to CD. King and Tucci (2002) further argued that the knowledge and information of the established manufacturers before the introduction of new technology can be used as an advantage and does not necessarily generate a reluctance to introduce new technological processes and products.

Christensen’s (2000) RPV Theory has faced challenge too. Charitou and Markides (2003) proffer that the RPV framework is not only a framework for failure but can be used to structure established companies and their resources for success and adoption of innovative products and processes. Christensen’s theory that to achieve success from new technology, established manufacturers need to create a new company to manage the technology was also challenged. McDermott and Colarelli-O’Connor (2002, p.431) summarised that “isolation may protect the project from the counterproductive forces within the mainstream, but it also cuts the project off from its most important sources of learning, competences and resources.” However, Chesbrough’s (2003) analysis of Xerox
spin-off companies highlighted the more impressive achievements of companies with less main company representation than those with a higher degree of involvement by the parent company such as board representation.

Christensen’s reaction to these challenges to his work is to embrace and to consider the areas raised for further research. For example, in response to the debate about spin-off companies, Christensen adapted his 1997 perspective stating that “when a threatening disruptive technology requires a different cost structure in order to be profitable and competitive, or when the current size of the opportunity is insignificant relative to the growth needs of the mainstream organisation, then – and only then – is a spin out organisation required as part of the solution” (Christensen, 2002, p.176). In January 2006, a new Christensen paper *The Ongoing Process of Building a Theory of Description* (Christensen, 2006) summarised his desire for future debate, research and analysis into the impact of new technology on organisations and customers so that the explanation and clarification could be continually improved and better theory developed.

### 3.6 Research on the Recorded Music Industry

Burnett (1996, p.3) stated that “academic research has traditionally shown little systematic interest in popular music. Consequently, because of academic neglect, there are gaps in our knowledge about most aspects of popular music.” Burnett (1996) quotes from Blumler (1985) on the study of television, Ewen (1983) on the impact of Rock ‘n’ Roll and Chaffee’s (1985) description of popular music as the most international mode of communication. However, it is still Burnett’s (1996, p.3) belief that “there is clearly much work to be done.” This review of the
available research is supported by Walsh et al. (2003, p.305) seven years later, which states that “studies have tended to ignore the vibrant area of music marketing. Indeed, there is little research focusing on music buying behaviour.”

In the decade since Burnett’s (1996) statements, the end of the 21st century and the centenary of the commercial development of recorded music did produce historical perspectives on recorded music including Kenney’s (1999) Recorded Music in American Life and Coleman’s (2003) Playback, which charted 100 years of the recorded music industry from the RCA “Victorla” to the arrival of the Internet and the MP3 file.

The impact of the Internet on all areas of commerce has produced numerous journal articles on “disintermediation” of value chains and books on creating on- and off-line businesses, products and processes. This includes work by Porter (2001), who stated how his Five Forces model continued to be as relevant in the Internet era as it was when it was written 20 years before the creation of the commercial Internet. Lindstrom (2001) and Chaffey (2000) both integrated current management theory with the Internet in a universal manner that they suggested could be applied to all business interests.

The arrival of the Napster MusicShare programme in 1999 (Menn, 2003) and the subsequent court case prompted a number of business journalists to chart the impact of the new cultural phenomenon of music files on the Internet. These included Menn’s (2003) All the Rave, Merriden’s (2001) Irresistible Forces and Alderman’s (2001) Sonic Boom. However, these books described the challenge and the impact of the technology rather than applying theories on how to manage
and adopt the new Internet and digital file technology within the recorded music business.

Academic interest in the future of music on a commercial and cultural level is increasing with David Kusek and Gerd Leonhard (2005) and Evan Eisenberg (2005) considering the new paradigm. Journal searches using isknowledge.com on recorded music distribution and music industry innovation produced limited results, only 18 and 15 respectively. Neither of these searches identified journal papers focusing on the evolution of technology (sustaining or disruptive), or the impact of technology and the recorded music industry management’s response to innovative products and processes. There are journal papers conducting empirical studies on industry data, including Oberholzer and Strumpf (2004) and Liebowitz (2003), but these utilise very limited industry figures or projections that fluctuate wildly. There are other papers on recording copyright, the Internet and the culture clash of various stakeholders, but no journal papers on the management’s reaction or the development of a sustainable strategy to manage technological evolution.

Although interest in the music business in increasing in light of the changing media landscape, there is little up-to-date research into managing change in the music industry, such as disruptive technological change and how best to ensure that the recorded music industry understands the new paradigms. Though Walsh et al. (2003) review the Internet, they fail to consider the reaction of the incumbent retailers and the imminent release of the Apple iTunes package. This is also a failing of Meisel and Sullivan (2002) as their analysis is based on
resources, values and processes strategies prior to the launch of iTunes. Therefore their prediction was that the music industry is over, which is not the current perspective of the industry or the industry analysts. Graham (2004) reviews the changing recorded music supply owing to the Internet but this sought to describe a process change from a major label’s perspective rather than to understand the reaction to change.

3.7 Recorded Music Format S-curves

In this Literature Review, the benefits of analysing sales volume and consumer trends have been highlighted because this practice provides an indication of the market stage, the probability of marketplace change and the infancy of new consumer propositions. Christensen (2000), in considering these developments, analysed the emergence and impact of technological innovation on sales volumes and market evolution using Richard Foster’s (1986) S-curve theory.

Foster’s (1986, p.21) S-curve theory is appropriate to change in the recorded music industry because it is based on the ability “to see patterns of corporate success and failure.” This enables detailed investigation of the growth and impact of new products or processes as they emerge and are adopted by consumers in the market, sometimes over long periods of time. Foster’s (1986) S-curve theory reveals market inflection points (when sales peak) and periods of discontinuity (the stage of confusion as the dominant format changes from the old to the new) in sales of all products and processes.
In the recorded music market, the S-curve graphs reveal market change in audio formats: the onset of innovative technology and when the arrival of a new audio format alters consumption patterns and the industry starts a new era.

**Technology Instigates Market Evolution**

The Industry Background in Chapter Two highlighted that the recorded music industry has undergone a number of distinct phases of market evolution driven by innovative change in recorded audio formats and the impact of other entertainment technology, such as radio. The Industry Background also described how the recorded music industry has never controlled the development of new audio format machines for industrial or domestic usage. In short, the global recorded music industry has never initiated a new technology product.

S-curve graph analysis in this research can begin only in 1973, which marked the beginning of independent and reliable market data collection. The independent data (reproduced in Appendix A) have been collected and verified as reliable by the British Phonographic Industry (BPI) Research Department in London. For this thesis, these data are used to trace the S-curves of the various consumer audio recording formats available across four decades as they have emerged from infancy, into explosive growth and finally into maturity. Foster (1986, p.110) defines these periods by stating that the “mathematics of the adolescent S-curve [are] that once the first crack appears in the market dam, the flood [of the new product or process] cannot be far behind.” S-curves illustrate market change as Foster (1986, p.51) states that S-curves display “technological discontinuities” from the maturity of one format to the infancy of the next format to explode.
Technical Innovation of New Audio Formats in the UK

Since BPI monitoring of audio format sales began in 1973, the UK recorded music sector has seen two successful introductions of technologically innovative audio formats:

- First, the arrival of the audio cassette in 1983, that would supersede the vinyl album format; and

- Secondly, the introduction of the CD in 1992, that would supersede the audio cassette album as the consumer format of choice.

The retail of the technologically innovative audio format of the legal digital music file download, launched in 2004, is also a highly significant event for the recorded music market in the UK. The digital download began impacting the industry, i.e., sales of recorded music, before it was a legal consumer format, but because these transactions were illegal, there are no reliable data covering the take-up of the digital download during the period prior to 2004, and so this analysis is confined to considering legal consumer downloads only.

3.7.1 The Audio Cassette Format in the UK Market

Analysis of audio cassette sales using S-curve theory demonstrates how innovative audio formats can change the recorded music industry, illustrating the revolution of audio formats in the marketplace. The audio cassette was invented and launched globally in 1965 by Dutch conglomerate Philips (www.philips.com). Philips did not monopolise this consumer audio innovation for hardware and software, instead it actively encouraged record companies to
licence the new technology with high audio reproduction qualities. By 1968 Philips had licensed 85 different manufacturers around the globe to make cassette players and they had produced over 2.4 million machines worldwide.

The S-curve for pre-recorded audio cassette album sales in the UK is shown in Figure 3.1.

Audio Cassette Sales

![Graph showing cumulative sales of audio cassettes in the UK from 1973 to 2005.]

Source: BPI

Figure 3.1 Cumulative Sales of Audio Cassettes in the UK, 1973-2005

Infancy Stage

The infancy period of the S-curve is when “funds are put into developing a new product or process, [and] progress is very slow” (Foster, 1986, p.31). The market impact of a format in its infancy stage is minimal because consumers are only starting to assess the value and the superior performance of the innovative technology, and there is a time-lag caused by the natural replacement cycle of
domestic consumable products. The infancy phase is characterised by a gradual increase in consumers’ interest and hence sales of the product, which is seen as an increasing gradient on the S-curve graph.

The audio cassette format was introduced to the UK audio consumer in 1972, when the vinyl record was the dominant audio format, and remained in its infancy until 1983. The UK launch of the Sony Walkman, a consumer technology exclusively for enjoying the audio cassette format, dramatically increased music’s portability and consequently the demand for the audio cassette increased as consumers wanted to enjoy music without having to be tied to a record player and a vinyl album.

**Growth Stage**

This stage of dynamic market growth is represented by the almost perpendicular element of the graph.

The Sony Walkman was the catalyst that created explosive growth in consumer consumption of both pre-recorded and blank audio cassettes. By 1985, the pre-recorded audio cassette had become the most popular recorded music format in the UK. Its popularity with consumers accounted for cumulative recorded music sales of 400 million units in the UK during the seven years from 1982 and 1988 (www.bpi.co.uk).

**Maturity Stage**

The last stage of the S-curve graph is the plateau of growth and the decline in sales of the technology owing to the impact of the next wave of technological innovation. The flattening of the top of the S-curve illustrates the limit of the
market and technology growth. As Foster (1986, p.33) states “technology, even variously defined, always has a limit – either the limit of a particular technology, product or the way of doing business.” The consumer now has a reduced product interest, creating market sales stagnation, reflected as declining unit sales year on year and a reduction in the overall usage of the technology. Christensen (2000, p.46) cites the strategic importance of the flattening top of the S-curve as an opportunity because firms that anticipate “the eventual flattening of the current technology” can lead in “identifying, developing and implementing the new technology” and sustaining the overall pace of progress. This strategic advice from Foster demonstrates how the S-curve maturity phase can be used by companies as a warning to develop alternative technologies to continue overall market growth and preserve their leading position within the market.

By 1992, the audio cassette’s market position as the most popular audio format in the UK had been claimed by the CD. The manufacture of the audio cassette format was not immediately cancelled, redundant or replaced, but any refinement or improvement in the technology was very difficult and expensive to achieve. Therefore, the product reached the limits of improvement and market influence and its S-curve flattened.

**Inflection Point**

The inflection point is the point on the graph where the S-curve changes from being concave to convex. The inflection point marks the transition from the explosive growth period to the mature phase and pinpoints when annual sales of the technology under analysis start to decline. So the inflection point is important
because this is the point when the market changes in tandem with consumers’ needs and expectation. Foster (1986, p. 84) stated that as one technology begins to fade “it does not follow that there isn’t another technology that can solve the customer’s problem in a superior way. If there is an alternative, and it is economic, then the way that the competitors do battle in the industry will change.” Christensen (2000, p. 57) states that the “operative trigger [of change] is the slope of the curve of the established technology. If the S-curve has passed its point of inflection, so the second derivative is negative, then the new technology may emerge to supplant the established one.”

The point of inflection for the pre-recorded audio cassette can be identified as having occurred in 1989. This was the year in which annual unit sales of pre-recorded audio cassettes peaked and started to decline year-on-year. The new technology for the recorded music industry was the digital CD.

3.7.2 The CD Format in the UK Market

The CD, also created by Phillips Industries, with its effortless portability and improved digital audio quality, was a significant technological innovation for the recorded music industry and consumers. The CD was the principal audio format in terms of units sold, in the UK and globally, from 1992 to 2005 (www.bpi.co.uk, www.ifpi.org). Despite its technical superiority to the audio cassette, the CD still endured a period of infancy in the UK marketplace before the proposition resonated with mainstream consumers and through explosive sales growth became the dominant audio format for the retail of recorded music.

The S-curve for CD album sales in the UK is shown in Figure 3.2.
Infancy Stage

The CD was introduced into the UK in 1983. It sold just 300,000 units in its first year of sales (www.bpi.co.uk) owing to lack of availability and the relatively high costs of CDs and domestic CD players.

Growth Stage

By 1987, the unit cost of CDs and domestic CD players had declined and the technology entered the explosive growth period and by 1992, the CD had become the most popular recorded music consumer format in the UK (www.bpi.co.uk). The CD’s enhanced offering of audio quality, portability, functionality and reliability had made the format the one that customers felt was superior to all others in the market.
The CD’s impact on the UK recorded music marketplace was dramatic. During the fifteen years from 1986 to 2000 the CD accounted for cumulative recorded music sales of 1.5 billion units in the UK (www.bpi.co.uk). The increase in the size of the music sector illustrates the impact in terms of sales volume increases that can be stimulated by a new innovative technology.

**Mature Stage**

The market for CDs in the UK has reached a point where a future increase in annual sales looks unlikely. The CD’s S-curve is flattening indicating that the technology is close to the limit of market growth and its ability to influence the marketplace is on the wane. This highlights that consumers are starting to investigate new technology propositions in audio formats that better meet their needs for entertainment with easy storage and portability.

**Inflection Point**

The BPI sales data suggest that the CD reached its inflection point in 2004. This was the year when annual unit sales peaked, because unit sales in 2005 were down more than 3% on 2004. However, the recorded music industry’s efforts to prolong the life of the CD by discounting unit costs (down 10% over the four years from 2001 to 2005) could yet lead to a future year of unit sales even greater than 2004. But the signs are clear that the CD as a music format is past, or at the very least at, the end of its growth phase.

**3.7.3 The Digital Audio File Format in the UK**

The CD commenced consumers’ domestic enjoyment of digital music recordings. But it was the digital music download that enabled consumers (both legal and
illegal) to experience a revolution in distribution compared with the historic physical distribution networks of record companies, established through wholesalers and retailers. These companies had controlled the market and the industry as an oligopoly since the creation of the physical audio format for domestic enjoyment of recorded music.

**Infancy Stage**

The digital music file, as a (legal) retail audio format in the UK, is still in the infancy phase of its S-curve graph. However, sales figures have shown strong year-on-year growth leading to an increasingly sheer gradient in the digital download S-curve. This sheer gradient reflects Foster’s statements on increasing productivity and explosive growth associated with innovative technology.

The S-curve for the legal digital download market in the UK started in 2004. It began with the launch of MyCokeMusic.com and a white label service from OD2, followed by the launch of the UK Apple iTunes Store. The creation of the official download sales chart, i.e., a digital download top 40, cemented the arrival of this music format. In 2004, the BPI reported sales of digital downloads amounting to 5.8 million tracks. Between 2004 and 2005, the market for digital downloads grew by 350% to 26.4 million (www.bpi.co.uk).

**3.7.4 The Revival of the Single**

The single audio recording, which had been overshadowed by the album since the vinyl LP era, experienced a revival with the digital download. Consumers who embraced digital distribution could, through the unbundling of the physical album into individual digital downloads, purchase single tracks. Total single sales
(vinyl, CD and download) increased by more than 40% (from 37 million to 53 million) in just one year from 2004 and 2005. The legal download accounted for half of these sales (26.4 million units) having grown rapidly from a base of zero in 2003 before digital downloads were legalised.

The figure of 26.4 million legal digital music downloads in 2005 is particularly impressive when compared with the size of the CD singles market, which dropped to just 21.4 million units that year, accounting for just under 40% of single sales (with the remaining c.10% of unit sales belonging to 7” and 12” vinyl discs). Therefore, 2005 was the year that the single digital music download overtook the previously dominant format of the CD single format to become the dominant format itself. This meant that unit sales of the download single drew level with those of traditional physical single (CDs plus vinyl), as shown in Figure 3.3. So although the digital download is an embryonic innovative technology within the UK audio format sector, the two years of available data (www.bpi.co.uk) demonstrate that consumers appreciate the superiority of the single digital music download proposition and enthusiastically support the new audio format.
Figure 3.3  Sales of Single Formats in the UK, 2004 and 2005

The first two years of BPI sales data on digital music downloads show the infancy of the S-curve and also the emerging consumer preference for the superior offering of digital downloads. The BPI data therefore also demonstrate that the physical singles market has been substantially disrupted by the digital single download, with physical sales being equalled by the innovative digital download sales in 2005 after 50 years of physical formats dominating single sales.

New Format, Existing Content

The entertainment content of the established and the emerging technologies is identical; the only difference between them is the format – the physical format of the CD single versus the “virtual” electronic digital download. It is the new
consumer proposition of innovative audio formats, e.g., the ease, value for
time, quality and convenience of the new technology, which is the "consumer
issue" that drives the take-up of a new audio format. The new audio format
proposition shifts the consumer perception of technology in the marketplace. The
new consumer perceptions translate to unit sales, creating a new S-curve that
tracks the development of the new technology as a product in the marketplace
from infancy, through growth and onto maturity.

3.7.5 S-Curves and Audio Format Sales
The UK market sales data for recorded music since 1973 (Appendix A) clearly
demonstrate three incidences of new audio format technologies shaping the retail
of recorded music: vinyl being overtaken by the audio cassette, which was
superseded by the CD which in turn is being replaced by the digital download.
Figure 3.4 shows the S-curves of the three album formats discussed and their
flattening as the next technology becomes an established audio format.
Figure 3.4  Cumulative Sales of Album Formats in the UK, 1973-2005

Discontinuity Periods: Moments of Chaos and Opportunity

Christensen (2000, p.11) states that the way "new technologies emerge to surpass the performance of the old technology resembles a series of intersecting S-curves." Movement along the S-curve is the result of incremental sustaining improvements where a new line beginning a new S-curve graph is the next technology. The new S-curve signifies that a new technology has arrived in the market and, more importantly, with consumers (Foster, 1986). Therefore a new S-curve represents a disruptive technology that has and will progress through a unique value network.

A disruptive innovative technology can "knock out established technologies and its established practitioners with stunning speed" (Christensen, 2000, p.46) to
become the dominant technology and consumer preference. The incumbent technology's maturity phase leads to a discontinuity period as the new technology's manufacturer attempts to ensure its technology is the new dominant product or process. As a result, "S-curves almost always appear in pairs" (Foster, 1986, p.102). Individual S-curves of technological adoption can be combined onto one large graph and then resemble a series of intersecting S-curves detailing market change over a metric of time.

The gap between the maturity phase of one S-curve and the infancy of the next technology represents a market discontinuity period. Foster (1986, p.103), states that at "a point when one technology replaces another...often several new technologies vie with each other to replace an old technology in a market segment." Making sense of the discontinuity phase on the S-curve when all this is happening is very difficult. Foster (1986, p.103) defines the discontinuity period as a period of market "chaos" as competitors do battle to introduce the next technology to the marketplace and hope that their innovative technology will be the one to explode in growth to become the dominant technology until it too is superseded.

The use by Christensen of Foster's (1986) S-curve theory, including points of inflection and industry discontinuity, highlights that technological change can be recorded graphically revealing "moments of chaos" as more importantly the moments of opportunity for those with disruptive technology. Foster (1986) has established a framework and theory, and Christensen has then focused this S-curve theory on disruptive innovation. It is the integration of Foster's theory by
Christensen into his study of disruptive innovation that is relevant to the understanding and management of innovation and radical market change in the UK recorded music market.

Relationship Between S-Curves and Culture

Christensen (2000) surmised that each innovation S-curve must also reflect the culture of the technology’s parent industry or company. The culture encapsulates the organisational values that have facilitated the product’s success, defining the management’s views on new product development, marketplace challenges and the prioritisation of resources to manage those issues. The established technology’s culture and organisational values are dedicated to develop, sustain and in the end try to prevent, or at the very least manage, the decline of the established product or process in the discontinuity period. The embedded value network, especially within the incumbent manufacturers, shapes the firm’s cost structure and hence its ability to remain competitive. This culture and value network will have an influence on the decisions taken when the industry or company is faced with a mature product and a period of discontinuity.

How the industry reacts to market changes forms the basis of Christensen’s (2000) theories. Christensen’s (2000) theories are intended to help managers understand the culture and value networks that create the environment that allows disruptive innovative technologies to assail established manufacturers. Christensen (2000, p.46) also offers recommendations on how managers can create organisations within companies that are able to develop disruptive
technologies to ensure that the incumbent company can actually benefit from disruptive technology rather than be "knocked out with stunning speed."

3.8 Relevance of the Literature Review to the Research

The "market for music began with the sale of sheet music in the nineteenth century but it really took off in the twentieth century, with the emergence of and demand for recorded music in the form of vinyl records, cassettes, CDs, etc" (Gillett, 1996). Since its inception in 1877, the recorded music industry has managed repeated waves of new technology. The creation in 1999 of the digital music file, distributable via the Internet, has challenged the recorded music industry and seen it "struggling to maintain control and remain relevant" (Alderman, 2001, p.1).

The S-curve analysis of the secondary data in Section 3.7 supports Alderman’s (2001) statement, graphically displaying the transition in audio formats, with the maturity of one format coexisting with the infancy of another format. The industry’s shift from vinyl LP to audio cassette and then from audio cassette to CD can be tracked and it is possible to identify products going from infancy to maturity and in the process overtaking the previous incumbent audio format. The CD is the most recent audio format to have reached maturity, in this case after a decade of growth, and the industry is again in a period of discontinuity.

The innovative technology of the digital music download and its distribution via the Internet is the latest audio format that consumers are embracing. The consumer’s support is most starkly evident in the change in the singles market
where the digital download has in less than two years grown to equal sales of the traditional physical single formats combined.

The industry has gone from declaring digital music files and Internet distribution as “pervasive, out of control and criminal” (Clement, 2002, p.11) to realising that the digital music download distributed via the Internet is defining new rules, creating new consumer demand, new markets and major conflict to traditional logistics and is a major issue for the music industry (Charitou and Markides, 2003, p.19). By 2004 the industry was adapting to the new market structures with the BPI Chairman stating “that the music industry is in massive transition. Almost everything you can think of is being rethought through” (Hall, 2004, p.2).

As the industry embraced the new technology, its confidence was articulated by many. For example, bbc.co.uk/news (2004) reported the statement of the Official Charts Company (OCC) that “the rapid growth of legal download music sites has shown the music industry that downloading is the future.”

The popularity of the digital download had created “fundamental change” in the global music industry (Evangelista, 2005). Peter Jamieson, Chairman of the BPI, stated in July 2005 that the public’s embrace of the legal digital download services and formats had now emerged into the mainstream. However, more importantly, the download was becoming commercially more profitable for the music industry than traditional formats (www.bbc.co.uk, 11 July, 2005).

It has been reported in newspapers and magazines how the recorded music industry has moved from obstruction to adoption of the digital ecology. But there has been no systematic research into this transformation or how the industry
should develop in the future when again faced with such a transformation. The review of the available research highlighted the lack of research into the recorded music industry in general and in particular its managements' reactions to innovative technological change. Equally, although there has been research for almost half a century (Coch and French, 1948) on managing changes in culture and structure, none of this research has focused on the global recorded music industry.

This lack of research is surprising when considered in the context of the numerous theories developed to analyse markets for change and then to assist management to develop capability to establish new structures and propositions to manage change, which would enhance professional practice. As researchers have investigated further into the concept of organisation or marketplace change, it has become more sophisticated and specialised, from Scarborough and Corbett's (1992) challenge of technological innovation to Hosking and Anderson's (1992) theory to analyse the impact of change on the individual. Bouwen and Fry (1991) analysed the factors that need to be managed to overcome the individual's concerns over innovative technology introduction. The spectrum of change, reasons for change and various stakeholders' reactions to change is now a significant area of investigation.

3.9 Research Objectives

This Literature Review has identified that there has been limited academic research on the music industry in general and specifically in the field of managing change caused by technological innovation.
The S-curve analysis has shown that the recorded music industry is in a period of discontinuity as it undergoes a transition between dominant audio formats for recorded music, and this is also transforming distribution and consumer relationships.

The difficulties experienced by the incumbent companies in responding to the arrival of the digital music file distributed via the Internet reveals a need to understand better how the UK recorded music industry can manage disruptive technology.

The high number of references to Christensen’s (2000) theories in journals illustrates the diverse range of areas that Christensen’s theories on disruptive innovation have been applied to successfully. As such, Christensen’s theories represent a robust framework that can be applied to the recorded music industry and its response to digital music files and their distribution via the Internet.

Through the application of Christensen’s (2000) theories to appropriate data, various conclusions on the UK recorded music industry should be reached such that this research will make a significant contribution to understanding and enhance professional practice in the industry through developing a strategic framework that can be implemented to assist it in managing future change caused by technological innovation. The Research Objectives have therefore been focused on the transformation of the industry and developing greater knowledge of the various events so far in the recorded music industry’s evolution to the digital era.
3.9.1 Research Objective One

*Identify the factors that influenced the UK recorded music industry's reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.*

The analysis of the primary data collected on this Research Objective will be conducted using Christensen's (2000) Principles of Disruptive Innovation and characteristics of disruptive technologies. A correlation between the theory and the data will be identified as present or absent. The discussion of the data analysis will allow a conclusion to be reached on whether the digital music file and its distribution via the Internet was a disruptive innovation.

The primary data collected for this Research Objective will also be analysed using Christensen's (2000) Resources, Processes and Values Theory. This will enable the pre-digital capabilities of the established recorded music companies to be disaggregated and investigated to search for a correlation between the companies' capabilities and the theory. Using this theory on capabilities will reveal the factors that influenced the UK recorded music industry's reaction to digital music files and their distribution via the Internet.

3.9.2 Research Objective Two

*Identify the factors that created a retail proposition for digital music files distributed via the Internet.*

The identification of the capabilities of the incumbent recorded music companies will involve an analysis of the factors that led to an unsuccessful response to technological innovation. Research Objective Two is designed to identify the
factors that led another company to respond successfully to the same technological innovation.

The analysis of the primary data collected on this Research Objective will be conducted using Christensen’s (2000) RPV Theory, which will provide a disaggregated perspective on the capabilities necessary to succeed in developing a marketplace for innovative technology, in this case establishing it as a consumer audio format.

The primary data will also be analysed against Christensen’s (2000) Principles of Disruptive Innovation where relevant.

3.9.3 Research Objective Three

*Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.*

The analysis of the primary data collected on this Research Objective will be conducted using Christensen’s (2000) RPV Theory. This will identify how the recorded music industry has now evolved to embrace the digital music file and its distribution via the Internet by disaggregating the new capabilities of the digital-era recorded music company. In addition, the analysis will consider the deficiencies that remain within the established companies and also look to those companies, such as Apple, that have responded successfully to this disruptive innovation for further indications of key capabilities. This insight into advantageous resources, processes and values can then be utilised to develop a strategic framework that can be used to optimise a company’s response to any
future technological opportunity that impacts on the business model of the new recorded music industry.

* * *

All three Research Objectives will require the application of theory to primary data to enhance professional practice. This will expand understanding of the recorded music industry, which has been described as academically neglected by Burnett (1996), whilst providing a significant contribution to how the recorded music industry can evolve its capabilities to manage all forms of innovation successfully.

3.10 Summary

Christensen’s Disruptive Innovation Theory will be the basis for this investigation into the UK recorded music industry because it provides a foundation to the relevant issues of the early identification and management of disruptive technology by established companies.

This research was designed first to identify formally whether the UK recorded music industry has suffered disruptive innovation, as defined by Christensen, and the key factors that allowed this to happen.

Christensen’s theory will form the basis of analysis of the industry to identify why the new Internet retailers of music (e.g., Apple iTunes) have become so successful in serving this new market sector when compared with the traditional retailers and manufacturers. This thesis will also analyse the disruptive change in
the music industry for the creation of a practical theory on how to identify a change in the trading paradigm and then manage this change.

This new contribution to professional knowledge will be relevant and provide a practical process and structure to identify the assets and capabilities that the recorded music industry should monitor and develop in order to be aware of and manage technological innovation that will affect the industry in the future. This will be a significant contribution to the enhancement of professional practice in the recorded music industry through the development of a framework that will provide strategy and tactics for the industry to shape its resources, processes and values to maximise the opportunities of disruptive innovation.

The Literature Review has summarised some of the existing theories on the consequences of change and change management, including employees' reactions and the importance of understanding the impact of innovation on organisations. This Literature Review also identified the deficiency of research on the music industry and managing change within the industry.

This Literature Review describes the theories of Clayton M. Christensen (2000) on identifying disruptive innovation through the Principles of Disruptive Innovation and the successful management of Resources, Processes and Values to manage that disruption. These theories when applied to an industry facing innovation provide a framework for successfully managing and profiting from technology that could appear initially as disruptive.
The Research Objectives identified through this Literature Review were investigated using appropriate methodology, which is discussed in the next chapter.
Chapter 4  Methodology and Research Design

4.1  Introduction

This chapter reviews and critiques the methodology, philosophy, and relevance of data collection techniques for this thesis. The inclusion of research technique criticism is to justify the methodology selected, ensuring that the data collection techniques used are within approved frameworks so that the data collected and analysed, and the recommendations drawn from these processes, will be reliable and robust. Therefore this Methodology and Research Design chapter reconciles the chosen research structure and techniques with the appropriate research philosophy.

A Significant Contribution to the Enhancement of Professional Practice

The research procedures discussed in this chapter include the sampling of respondents and how to overcome issues in the facilitation of the data collection. The Methodology and Research Design chapter considers the various techniques of the analysis used to identify and manage the impact of disruptive innovation on the UK recorded music industry.

The chapter’s amalgamation of research structure, criteria, and procedures will ensure that this thesis constitutes research that is conducted in a rigorous and diligent manner. Following the required research protocols will enable this Doctor of Business Administration thesis to achieve the standard required by the Association of Business Schools (ABS) (1999). The ABS criteria, as quoted in Jankowicz (2002, p.2), require that a DBA thesis provides “a significant
contribution to the enhancement of professional practice in the business area through the application of and development of theoretical frameworks.”

4.2 Philosophy of Research

Data collection and analysis in the social sciences, or any research field, must be substantiated by the philosophical significance and suitability of each research methodology chosen as part of the research programme. As Morgan and Smircich (1980, p.494) state, “the appropriateness of a research approach derives from the nature of the social phenomena to be explored.” Therefore, the research techniques employed must draw from this perspective to deliver valid data and contribute towards robust conclusions. The research techniques identified for this thesis must therefore support and be incorporated within the fundamental philosophy of research. Academic research is defined by Easterby-Smith et al. (1997, p.1) as “collecting and interpreting information” but ensuring that it is done in a way “to create order out of chaos” and to ensure it is understood “how best [for researchers] to go about their work.” Research methodology equally creates “order out of chaos” through the application of techniques that have been developed to aid scholars who wish to research, understand and explain phenomena through a theoretically informed investigation.

This approach defines why actions or problems arise, and how they may be sorted, codified, and analysed and finally addressed. Research activities like this are categorised as epistemology. Epistemology is defined by Jankowicz (1997, p.87) as “an enquiry into how it is possible for people to know things, and how best to think of the process.” Therefore, this research is obliged to examine
beyond generally available knowledge to provide a new comprehension of a subject from universally accepted data providing the enhancement of professional practice in the business area. Easterby-Smith et al. (1997) support epistemological research, which is the philosophical approach of this thesis, and which has been described by Johnson (1994, p.45) as a “focused and systematic enquiry that goes beyond generally available knowledge to acquire specialised and detailed information, providing a basis for analysis and elucidatory comment on the topic of enquiry.”

Structured Research

The relevant research techniques for the study of disruptive innovation are focused and structured. This is to provide data on the industry that are appropriate and philosophically robust. To achieve the outcome desired it is important to focus the research appropriately as this will determine how the research conclusions may be applied. Structured research clearly identifies how the research is to be used and verifies that the research techniques will produce consistent data measurement within a systematic controlled process. Sekaran (2000) defined eight values for research to ensure that the product of the endeavour would be results that would provide a genuine outcome, minimising the possibility of erroneous analysis and therefore erroneous conclusions. Rogers (1961), cited in Easterby-Smith et al. (1997, p.87), defined the research structure as “a way of preventing me from deceiving myself in regards to my subject hunches.”
Presenting the data collected and subsequent analyses and recommendations as epistemological research does not in itself legitimise the doctoral investigation. This study must be presented within a definitive, logical, and robust framework. This scholarly framework defines the relationship between data collection and theory in the research process. Research philosophy assists the researcher by clarifying the way in which data are collected and analysed. The research philosophy will also assist in identifying which research techniques will provide the most appropriate conclusions and those that will not. Research philosophy is divided between the two distinct principles of Positivism and Phenomenological.

**Positivism**

Positivism is a research philosophy that seeks to apply the natural science model of research to investigations in the area of social science. Positivism is based on the assumption that there are patterns and regularities, causes and consequences in the social world, just as there are in the natural world.

These patterns and regularities in the social world are seen as having their own existence – they are real. For positivists, the aim of social research is to discover in the data collected the patterns and regularities of the social world by using the kind of scientific methods used to good effect in the natural world (Denscombe, 1998). Therefore through analysis the social scientist can identify these patterns and regularities in the data collected and from this draw conclusions and recommendations. The French Philosopher Comte (1853), cited in Easterby-Smith *et al.* (1997, p.22), was espousing positivism when he said “all good
intellects have repeated, since [Francis] Bacon's time, that there can be no real
knowledge but that which is based on observed facts."

**Phenomenology**

Phenomenology is a research philosophy that believes that the reality of studying
human social behaviour is that human behaviour is socially constructed rather
than objectively determined. Therefore, social scientists should not gather and
then analyse evidence or measure how often certain patterns of statistics or events
occur. Instead, social scientists should appreciate the different constructions and
meanings that people place upon similar experiences and events, and correlate
whether there are any similarities in human experiences and events. Phenomenological research therefore focuses on the respondents to provide the
data, drawing upon individual's different experiences for the explanation of
issues and events. This is different from research that searches for external causes
and fundamental laws to explain human and social behaviour and reaction to
events. Husserl (1946), cited in Easterby-Smith *et al.* (1997, p.24), described
phenomenology as "reality, socially constructed and given meaning by people."

**Thesis Philosophy**

This thesis requires phenomenological research because the elements that
determine disruptive innovation are not easy to identify as patterns from data
found in the natural world. The issues and factors that determine the research
objectives can be given meaning only in the context of the research problems and
therefore only by conducting phenomenological research and identifying similar
experiences and events through the analysis of informant interviews.
The phenomenological research philosophy is appropriate because the Literature Review concluded that there is no consensus among researchers as to change management theory or to the ability to develop within an organisation a positive perspective on disruptive innovation. This disagreement is a result of the influence and impact human emotion has on the application of innovation to any industry and marketplace. These human reactions to innovation are rooted in the personal responses to change as a positive or negative event. The only consensus in the literature is that disruptive innovative changes, in fact any changes, are difficult to identify and manage successfully, generating growth or efficiencies for the established company.

The emotional response, whether positive or negative, to innovation is derived from human experience, whether the change is to an organisational or individual. Therefore, it requires humans who managed and were affected by the innovation to give a meaning to the impact of the innovation to the organisation or individual. The reaction to the disruption and opportunities presented by digital music files and Internet distribution to the UK recorded music industry must therefore be analysed from the perspectives of individuals involved.

4.3 Research Objectives

Although it is important to construct this thesis within the appropriate theoretically informed structure, it is also important that this thesis research has clear objectives. This will then ensure that the research produces conclusions that can be applied to create a significant contribution to the enhancement of professional practice, through the application of and development of proven
theoretical frameworks that assist managing disruptive innovation in the UK recorded music industry concerning new forms of music recording and distribution.

Within the structure for this thesis it was necessary to define research objectives that highlight the issues associated with change and the elements that affect companies' managing disruptive innovation. The primary data and the themes distilled from them derive from the experiences of those in the UK recorded music industry. The research will use the collected primary data to test and develop the disruptive innovation theories discovered through the Literature Review. The primary data collected from more than 20 respondent interviews has a high degree of relevancy, quality and immediacy which will allow coherent discussion under the objectives. This discussion will lead to the development of conclusions on the impact and management of innovation in the distribution and retail paradigms of the UK recorded music industry.

The Research Objectives are to investigate the UK music industry in order to:

1. Identify the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature;

2. Identify the factors that created a retail proposition for digital music files distributed via the Internet;

3. Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.
The Research Objectives are drawn from the findings of the Literature Review and the deficiencies in the current literature on the UK recorded music industry.

The Research Objectives are structured to apply Christensen's (2004) disruptive innovation theories for the first time to the UK music industry. This is to facilitate the understanding of the impact of innovation and the development of a strategy for the deployment of the recorded music industry's resources and values to manage innovation. The Research Objectives were designed to provide recommendations on the key elements of organisational structures for managing innovation. This is to create an understanding and then a capacity to manage future innovation in music recording formats and distribution systems affecting the industry.

4.3.1 Areas Not Covered by this Research

Whilst undertaking the analysis of the recorded music industry in Chapter Two, other potential areas for research were identified:

1. The changes in the retail sector for physical recorded music formats

2. The application of digital rights management to physical formats and downloads

This section defines these areas and explains why they do not form part of the focus of this research.

4.3.1.1 The Retail Sector for Physical Recorded Music Formats

The recorded music industry has always required a third party to retail physical recording formats (CD, LP, 78rpm, etc.) to the consuming public. This
commercial strategy of manufacturer and wholesaler plus specialist retailers for popular music discs or particular genres of music can be identified from as early as the invention of the wax cylinder and the 78rpm flat disc (Sanjek and Sanjek, 1991). However, like the rest of the retail sector, the music retailing sector has evolved over the last 30 years. By 2000, when the recorded music industry was starting to identify the Internet as a threat to sales, the physical format retailers were concerned about the changing purchasing patterns of music consumers.

Table 4.1      Share of UK Album Sales by Retailer Type, 2000-2005

<table>
<thead>
<tr>
<th>Type of Retailer</th>
<th>2000</th>
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<th>2002</th>
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<td>Music Specialist</td>
<td>53.4%</td>
<td>51.6%</td>
<td>48.7%</td>
<td>47.0%</td>
<td>44.9%</td>
<td>44.0%</td>
</tr>
<tr>
<td>(e.g., Virgin/ HMV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specified Chains</td>
<td>20.8%</td>
<td>19.4%</td>
<td>18.4%</td>
<td>16.0%</td>
<td>16.5%</td>
<td>13.4%</td>
</tr>
<tr>
<td>(e.g., Woolworths)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supermarkets</td>
<td>11.4%</td>
<td>14.8%</td>
<td>17.8%</td>
<td>21.6%</td>
<td>22.8%</td>
<td>26.3%</td>
</tr>
<tr>
<td>(e.g., Tesco, Asda)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mail Order / Internet</td>
<td>11.1%</td>
<td>10.7%</td>
<td>11.9%</td>
<td>11.4%</td>
<td>12.3%</td>
<td>13.7%</td>
</tr>
<tr>
<td>(e.g., clubs/Amazon)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>3.3%</td>
<td>3.6%</td>
<td>3.1%</td>
<td>3.9%</td>
<td>3.4%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>


The figures in Table 4.1 highlight how market share by retailer type has changed from 2000 to 2005. Over the six years, supermarkets more than doubled their share of the music retailing sector, whilst the music specialists lost nearly 10% and the chains lost 7% market share. The mail order market became the Internet market, evolving during the six years although the delivery method of physical post remained the same. So the change in the retail ecology was dramatic with specified chains and specialists suffering while supermarkets gained 15% ($450 million) of the UK marketplace, worth US$3 billion.

Although the fortunes of the recorded music retailers showed a dramatic change across these six years, this is not the focus of the dissertation. These changes in
retailer share are simply a manifestation of the changes in consumer purchasing habits; they have nothing to do with the management of technology innovation in the manufacturing and distribution of formats in the UK recorded music sector.

4.3.1.2 Digital Rights Management

Within the Literature Review and in some of the interviews the issue of encrypting music sold to consumers through special software was mentioned. This process is called the encoding of the music with digital rights management (DRM) software. This limits the copying of the recorded music onto, e.g., CD, and the ability to upload the music onto the Internet for free distribution.

DRM has been described by Doctorow as “anti-copying technology” (2006, p.1). The music industry though, which was slow to understand the impact of recorded music distribution via the Internet, did work with Apple to resolve the situation. This was resolved when the major labels achieved commercial success through iTunes selling music. However, the application of a DRM system is a complex commercial and political issue; as Doctorow stated “there are two possible outcomes: either you have a popular single-vendor system that’s bad for the industry and general public, or you have multi-vendor systems that’s bad for the industry and general public” (2006, p.1).

So in 2006 the recorded music industry has yet to devise a strategy for DRM. The unilateral application of DRM software by one of the majors will place that major at a disadvantage because consumers will not have the necessary technology to listen to the recording. If one common DRM technology is applied, creating a
DRM monopoly for one software company, this is unlikely to be accepted by the majors.

The various recorded music manufacturers are promoting copy protection technology named by Halderman and Felten (2006) as “Blu-Ray, XCP, MediaMax and HD-DVD” (p.1) but the discovery in the US in Autumn 2005 of flaws in two CD protection systems (XCP and MediaMax) “triggered a public uproar that ultimately led to class-action litigation and the recall of millions of discs” (p.1). The application of physical DRM remains a contentious issue within the industry and it is not just an issue for physical CDs; there is also the need to consider all recordings, including those broadcast or streamed on the Internet. Therefore, without a clear technical solution, the issue of managing this innovation is not possible.

The ongoing debate of physical format DRM is unresolved. Equally, the challenge of online rights protection software is being debated. The Electronic Frontier Foundation (www.electronicfrontierfoundation.com) is highly critical of the vendors of digital music files, including retail sites like Apple iTunes, Napster, and MSN Music, in terms of their DRM software and how this software is “specifically designed to reduce what you can do with your music.” The two main online DRM systems are Apple’s ACC and Microsoft’s WMA (Windows Media Application). These systems are incompatible and, some say, designed to “lock consumers into one format or the other.” www.electronicfrontierfoundation.com). Christman (2006) states that the National Association of Recording Merchandisers (NARM) is requesting system
compatibility in DRM. However, Apple, so dominant in the marketplace, will not licence or recognise other digital rights management systems like WMA (Hemel, 2004). NARM is concerned that this sector conflict and lack of consumer flexibility will be used by consumers as justification for using illegal digital music sources. Hemel (2004) wrote “who will win is hard to predict and only time will tell what will happen,” while John Kennedy (2006), Chairman and CEO of the IFPI, declared that one of the industry’s challenges is to gain “more recognition of the role of DRM” (p3) calling for the music industry and its partners to achieve this in the following years.

Therefore the issue of DRM is embryonic; it is highly confusing to the recorded music sector which has no clear strategy for the application of DRM to either physical or digital formats. Hence, it was treated as outside the scope of this research.

4.4 Research Methodology Techniques and Design

When designing a research methodology, the researcher needs to consider numerous factors. These include the data collection, sampling and analysis techniques. This section is designed to explain and justify the methodology used and to consider possible alternatives to the process chosen.

4.4.1 Data Collection

The data collection technique used in this thesis is qualitative. Van Maanen (1983), cited in Easterby-Smith et al. (1997, p.71), defined qualitative research methods as “an array of interpretative techniques which seek to describe, decode, translate, and otherwise to come to the meaning, not the frequency, of certain
more or less naturally occurring phenomena in the social world.” Yin (2003) argued that this type of approach is preferred when “how” and “why” questions are being asked.

The alternative data collection technique is quantitative. Quantitative data collection techniques have a propensity to be associated with numbers or figures as the data unit for analysis (Denscombe, 1998). Quantitative data collection techniques are based on the positivist philosophical assumption that if something exists, it exists in some physical degree and therefore can be numerically measured (Miles and Huberman, 1994). This technique is inappropriate for this research because quantitative data collection techniques are usually highly structured and use a scale of numbers for all responses and hence all data collected. The quantitative approach forces the respondent to fit answers into predetermined answer grids, rather than providing a response that comes directly from the respondent’s point of view through comments, statements and the compilation of common themes.

Because this research is looking to understand people and their actions, it is clear that qualitative research is the most appropriate technique to use to capture the real life context within which events take place and to capture the essence of events, as described by Robson (1993). The qualitative data collection technique used was the semi-structured interview, conducted in confidence with a range of industry experts. The interview guide is presented in Appendix B and an anonymous summary of the interviewees’ credentials is given in Appendix C.
4.4.2 Types of Data

The chosen qualitative technique requires access and capture of data in a real life context. This context requires the researcher to collect data through “systematic observation” (Jankowicz, 1997) making the data original, where the data are collected by the researcher, as no other sources are acceptable as primary data. These data points are then compiled, analysed and distilled into conclusions that form the basis of recommendations.

To achieve this systematic observation, it is not possible to use alternative techniques. Some researchers do use secondary data as the basis of research. Secondary data can be collected from all published material including industry associations’ journals, company reports, journals, magazines and books, or from searching the Internet. This approach was used for the first two chapters (Introduction and Background to the Recorded Music Industry). However, relying on secondary sources fails to meet the need for qualitative data to be observed firsthand so as to ensure a systematic approach as well as a specific line of questioning that will achieve insights pertinent to the research objectives.

4.4.3 Purposive Sampling

This research was formulated to understand the best way to manage innovation in the distribution and retail of music affecting the UK recorded music industry by discussing the issue with the key decision-makers in the industry. The respondents and their views are not representative of the entire music industry, only of those who manage the record companies or digital music distribution companies, as these companies have been the most affected by the impact of
digital distribution. These individuals are now creating a sustainable business model in response to the disruptive innovation of music distribution via the Internet.

The sample of respondents does not therefore need to be representative of the UK population in terms of age and demographic. This issue is not a UK issue or an area where different demographics have any relevance; the key decision makers and their thoughts and reasoning are the only key data to collect. The views uncovered, and therefore the data recorded, are idiosyncratic and not generalised to other professionals.

The approach used for locating respondents and collecting primary data is purposive sampling. Purposive sampling benefits form the extensive knowledge and experience of respondents, ensuring that the primary data that the respondents provide are highly relevant to the research objectives. The researcher is therefore making a judgement during the research that the respondents and the primary data provided through the interviews are of merit and typify the diversity of opinions within the industry.

Purposive sampling can be achieved via a number of processes. For this research the chosen purposive sampling methodology was “snowball sampling.” Snowball sampling is so defined because the number of respondents who provide insight and primary data increases in size like a snowball increases as layers of snow are added. At the end of each interview the respondent recommends further respondents to provide subsequent interviews, continuing the collection of primary data (Reeves and Harper, 1981). Snowball sampling is the most
appropriate sampling technique to use in this research because the thesis focuses on the reactions of a number of key individuals who made the major policy decisions within a relatively small industry.

However, to ensure expansive and exhaustive collection of primary data from a purposive sample of industry experts, elements of the "key informant" methodology were applied (Tremblay, 1982) to draw out insights and observations applicable to the various levels of experience of music distribution of the business managers in the UK recorded music industry.

Purposive snowball sampling does have disadvantages that need to be considered by the researcher. Jankowicz (1997, p.157) stated that the main disadvantage of snowball sampling is that "you're never quite sure if the basis for seeing people as 'typical' isn't gradually changing as you work through the sample." To attempt to reduce this disadvantage the Respondents were consistently asked to state how "typical" they are in their views on digital music files, Internet distribution of music and the industry's ability to manage disruptive innovation.

Snowball sampling, owing to the referral mechanic, may be biased as a result of the relationships between respondents, which may create social networks or group-think (Griffiths et al., 1993). Hence this social network can exclude those who are not in agreement with the prevailing views of the network (Van Meter, 1990). To avoid the risk of group-think bias, the interviewees were asked to recommend respondents who both agreed and disagreed with the answers and thoughts provided by the interviewee. This data collection protocol therefore
broadened the range of respondents and the diversity of data collected for analysis.

Also, with snowball sampling there is always a concern that negotiating access to respondents can be difficult and could cause the research to flounder if permission for a key interview is withdrawn. Therefore it is important to consider the quality of the respondents as well as the total number of respondents. Those who refuse or withdraw from the interview should be considered as an element that affects the validity and reliability of the data collected and therefore the conclusions drawn.

The interviewees were also requested to keep the research process and opinions provided confidential. This request was important to the research because it was possible that some interviewees would know each other as a result of working in the same industry, or indeed as a consequence of the snowball sampling technique used to recruit interviewees. This request for confidentiality throughout the data collection process ensured that the data collected were not contaminated by discussion and each respondent provided independent data on their individual observations and opinions on the recorded music industry during the period when professionals had to adapt to an evolving marketplace to accept the digital music file as a format for recorded music and the Internet as a distribution platform.

Finally, the sampling approach of key informant and snowball sampling had a distinct limitation, namely access to Apple Computers staff for their opinions on digital technology, digital music distribution and the management of innovation in the UK recorded music industry. Although Apple Computers was approached
directly and, through the snowball sampling, indirectly, there was a universal refusal to be part of the research. This is not surprising because Apple Computers as a corporation is highly secretive, with CEO Steve Jobs stating that the corporation “never talks about future products” (Tapper, 2005). This description of the corporate culture by the CEO is supported by aggressive litigation. In December 2004, Apple sued “25 unnamed individuals – presumed to be Apple employees – who allegedly leaked confidential product information in violation of nondisclosure agreements” (Sandoval, 2005, p.1). The practical difficulty of including Apple employees in the sample was by overcome by including questions in the semi-structured interview about Apple, and by collecting articles and music industry commentary by Apple and on Apple that have appeared before and during the research period. The subject of Apple is a recurring theme in daily conversation in the industry so it is important to recognise that conclusions drawn on Apple Computers were informed by personal knowledge and industry sources.

**Alternative Sampling Techniques**

Alternative sampling techniques to purposive sampling snowball sampling were considered but deemed to be inappropriate and likely to fail to deliver data that were relevant or from individuals who understood the issues or held valid opinions that could be used as the basis of this research.

The alternative sample techniques considered but rejected included non-probabilistic sample techniques, i.e., samples of respondents that have experience and background knowledge relevant to the research project.
Accidental sampling involves a random choice of respondents whose views are of interest on a basis of convenience only. This was rejected for this thesis because this research requires respondents with relevant knowledge and experience.

Quota sampling, in which the sample has the same demographic profile as the population being researched, could also have been used. However, as the number of respondents with the necessary seniority of experience and level is relatively small, it was probable that the same respondents identified through "snowball sampling" would have been sampled to provide primary research data.

The use of purposive snowball sampling for this thesis provided an expert, experienced and relevant sample of respondents and high quality primary data for analysis. However to ensure the research in this thesis is diligent, the Discussion chapter includes a full consideration of the possible errors in the data sources and therefore in the conclusions and recommendations.

4.4.4 Research Methodology

The research methodology is the plan or strategy for undertaking the research. Possible approaches for research include surveys, experiments, action research, ethnography and case studies.

For this research, a survey was rejected because it is generally a wide coverage technique used to bring an issue up-to-date. As the research
concerned a new challenge in a specific industry, the technique would not have produced viable data.

- An experimental methodology is designed to isolate factors and observe these factors in detail. As the factors had yet to be identified it was not an appropriate methodology for this research.

- Action research is usually associated with small scale hands-on research and is highly participatory. The participatory element was the main issue making this methodology unsuitable, as with four major labels and the need to integrate action research in all four simultaneously was beyond the available resources.

- Ethnography concerns the description of a culture. This could have been interesting in understanding the record labels’ innovation culture. However the need to gain access to observe innovation in the four major labels and to achieve this without disrupting the naturalness of the setting eliminated this as a research methodology.

- After considering the alternatives techniques, the case study was selected as the most appropriate research methodology for this research, where the research objectives focus on a set of issues in an industry. This is because the case study method highlights the key issues, variables and elements of a problem and allows a comparative study of the issue in various companies.
In this thesis, the case study process, asking the same questions and using the same data collection techniques in related organisations (Jankowicz, 1997), e.g., various record companies, retailers and trade bodies, was used to collect data for analysis. The case study research method allows the researcher to collect primary data from various interviews and compare organisations and elements of the organisations in a systematic way, exploring the different stances and opinions.

The primary data collected in a case study are obtained through a review of written material and by means of interviews and, in this sense, states Jankowicz (1997, p.181), "the case study resembles an archival method." Denscombe (1998, p.31) states that the case study approach as a research method "allows the researcher to use a variety of sources, a variety of types of data and a variety of research methods as part of the investigation. Whatever is appropriate can be used for investigating the relationships and processes that are of interest."

The case study method requires four stages of work. Bennett (1986) listed them as:

1. Determining the present position;

2. Gathering information about the background to the present situation;

3. Gathering specific data to test alternative hypotheses or research objectives about the important factors in the situation; and

4. Presenting recommendations for action based on the conclusions drawn.

The complexity of the case study lies in the richness and variety of data considered and this engages the researcher completely. The approach also places
under scrutiny all the available data and then allows the validation of data through triangulation of sources. However the sheer volume of this rich and varied data can complicate the analysis and the research. This can also influence the research project as the continuing collection of day-to-day data can interrupt the analysis. Equally the researcher needs to have multiple sources of evidence to confirm and synthesise reliable, valid and robust conclusions (Yin, 2003).

The case study method is an approach that is highly effective in conjunction with a research model or theoretical stance (Hartley, 1994). In this thesis, Christensen’s (2004) disruptive innovation theory is the theoretical stance adopted for, as Yin (2003, p.32) puts it, “theory-testing.” The case study approach allows the researcher to conduct a comprehensive review, including analysis of the full richness of the subtleties and intricacies of complex issues, such as the events and elements that impact the adoption of digital music file and Internet distribution.

The research approach for a case study is to focus on an issue, then concentrate on developing valuable and unique in-depth insight into relationships, values and processes in the marketplace. As Yin (2003) stresses, the topic to be researched should be a “naturally occurring” phenomenon, existing before, during and after the research. However, this research approach can be criticised and the conclusions can be disputed for lacking credibility. This is due to generalisations in observation, the rigour of data, the boundaries of the research, or that through the process of the case study, the data can be distorted. Finally, as the case study
is a protracted method, the researcher may become too closely involved and start to lose objectivity.

Suitable research data sources for a case study include:

- Archival records (e.g., audio format sales and download trends)
- Documents (e.g., from British and International music companies and organisations, news articles and Internet coverage)
- Observations (e.g., direct observation and interviewees' observations regarding the innovation of digital music files and their distribution via the Internet)
- Focused interviews
- Semi-structured interviews and surveys
- Open-ended interviews

The primary and secondary data collected through the case study approach will create a convergence of evidence for this thesis on managing and benefiting from disruptive innovation in the UK recorded music industry.

The case study methodology however does have disadvantages that must be considered when being applied to a research project.

- The generalisation of answers that form the basis of conclusions can weaken the credibility of the work.
• The data produced can be considered “soft” and lacking a degree of rigour. Therefore the researcher needs to be able to demonstrate careful consideration of the rigour of the data collection, data analysis and conclusions drawn.

• The case study approach can lead to the observer effect which will impact data and conclusions. Therefore the researcher needs to ensure that they attempt to minimise their impact on the data collected.

4.5 Reliability and Validity

Although the case study has clear advantages as a research methodology, the disadvantages covered above highlight possible weaknesses in the robustness of the data and conclusions. Therefore a key part of the research process was to ensure that the primary data used for analysis were able to be labelled “trusted data” from which the appropriate inferences could be drawn.

Trusted data must be both reliable and valid to ensure that the conclusions and recommendations of the thesis have merit and can be classified as rigorous. The research techniques and philosophies selected for this thesis constitute logical, rigorous and epistemological research. However, whatever research methodology is chosen, any primary data used must be sufficiently durable, consistent and robust in nature to create reliable and valid results.

• To be reliable, data samples must reproduce the same results and analysis after repeated collection.
To be valid, any type of data must be capable of being collected consistently by two or more research techniques.

If the collected data fail on either of these criteria then they cannot be relied upon as the basis for analysis or recommendations. The importance of reliable and valid data has itself become an area of research interest, e.g., Goldstein and Goldstein (1978), Brindberg and McGrath (1985), and Berger and Pratcher (1988). Within this thesis the research techniques and methodology identified have produced reliable and valid data, i.e., data that can be collected repeatedly and corroborated by independent techniques.

4.5.1 Issues of Reliability

Reliable data comprise data points that are consistent, stable and can be repeatedly collected or re-measured in the future by other researchers with the prerequisites that both the condition of the data collection field and the data collection technique are unchanged. This replication of the research process allows the data to be duplicated and the conclusions drawn to be verified by other researchers. It is most common to examine equivalence reliability, which is described by Easterby-Smith et al. (1997, p.122) as “the extent to which different items intended to measure the same thing correlate with each other.”

4.5.2 Issues of Validity

Valid data are data that can be accurately reproduced through alternative research and measurement techniques. Validity as a research philosophy can be focused on the content or construction of the research technique. Validity of data is demonstrated by reproducing the collected data through various techniques to
provide clear evidence of the robust nature of the data collected and its reliability for analysis, conclusions and recommendations. Bannister and Mair (1968), cited in Easterby-Smith et al. (1997, p.121), used George Kelly's definition of validity: "a test to tell us what we already know."

Validity can be identified in different ways. Patchen (1965) identified three types of validation of data and research:

1. Face validity concerns whether the research instrument or the items of data generated are plausible.

2. Convergent validity is where the data are confirmed through comparison with results from other independent measurement procedures.

3. Validation by known groups involves comparing groups otherwise known to differ on the factor in question.

4.6 Analysis of Data – Content Analysis

The primary data collected for this dissertation required analysis. The process of data investigation was completed through content analysis, "which is to describe systematically the content of your respondents' utterances, and classify the various meanings expressed in the material you’ve recorded" (Jankowicz, 1997, p.206). Content analysis required the transcripts of the Respondents' semi-structured interviews to be reviewed and the themes, statements and frequency of statements identified. This was achieved through following the process of perceiving, which requires the researcher to classify the statements of the
Respondents through five stages, described by Jankowicz (1997, p.207) as preparation, categorisation, coding, tabulating and illustrating.

The technique chosen for this perceiving of the Respondents' statements was to note themes on index cards and then to identify where each theme statement was repeated throughout the transcripts. To illustrate how themes were identified, a marked-up transcript has been included in Appendix D. The analysis continued with the Respondents' statements being grouped into coded themes, providing an impression of the convergence of the opinions from the research. This index card coding could then be used for tabulation and reporting of the content analysis themes collected and to structure the Respondents' themes in readiness for the Discussion chapter.

4.6.1 Reducing the Undue Influence of the Researcher

Content analysis of primary data is a suitable research technique for this investigation although content analysis does require a diligent approach. Researchers must follow standard procedures in their application of the analysis technique, being careful to avoid any conscious or subconscious corruption of the analysis as a result of the observer effect. Denscombe (1998, p.134) highlights that the researcher's interaction with the data and the results is one of the strongest elements in content analysis to identify respondent themes. However the researcher is also the weakest element because the influence of the researcher can bias the outcome of the results and the conclusions. The "impact of the researcher's own identity and values in the analysis of data" (Denscombe, 1998) may influence the analysis and therefore the conclusions and recommendations.
Within this research, procedures were followed to minimise the risk of the researcher unduly influencing the results. First, the Researcher, whilst conducting the content analysis, undertook an audit of the content coding, recoding the transcripts, and continually looked for unintentional influence on the developing themes and results. This audit of coding applied required the Researcher to look beyond the obvious message within the text and to ensure that content analysis of the data considered all the dimensional levels that could be accessed. This multiple transcript coding allowed the Researcher’s analysis to examine the depth of the responses and stratify results to a deeper level than the immediate and superficial codifying of data. It also reduced the influence of the Researcher and strengthened the content analysis and recommendations and conclusions.

4.6.2 Increasing the Reliability of the Content Analysis

The repeated application of the content technique to minimise the Researcher’s undue influence was supported by independent content analysis of the Respondents’ transcripts to increase the reliability of the themes identified by the Researcher. The interview transcripts were independently examined by a research partner, who is a doctoral researcher with a postgraduate qualification in social sciences. The Independent Researcher analysed the unprocessed transcripts and produced an independent content analysis, coding the themes in the transcripts and tabulating the results. The Researcher’s original Respondent themes from the content analysis are shown in Table 4.2 while Table 4.3 shows the Independent Researcher’s content analysis themes after examination of the raw interview transcripts.
Table 4.2  Researcher’s Content Analysis Coding and Tabulation

<table>
<thead>
<tr>
<th>Theme Number</th>
<th>Content Analysis Theme</th>
<th>Frequency (Number of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital/luddites/established format and payment model</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Quarter driven/unit sales/management remuneration</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Internal strategy/culture/values</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Retailer power</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Fan clubs</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Investor influence and control</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Control of distribution of physical product/format development</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Apple/iPod/iTunes/brand</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Established management want to keep job</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>New audio formats/technology marketing proposition</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>The threat of Apple iTunes</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>New ways of working on rights management</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>Knowledge of consumers/marketing/propositions/research</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>Leadership/Steve Jobs/credible CEO</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>New skills/divisions needed in the recorded music industry</td>
<td>11</td>
</tr>
<tr>
<td>16</td>
<td>Customer/consumer relationship management</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Price of downloads</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>Planning and budget cycle/short-term and long-term</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 4.3  Independent Content Analysis Coding and Tabulation

<table>
<thead>
<tr>
<th>Theme Number</th>
<th>Content Analysis Theme</th>
<th>Frequency (Number of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lack of knowledge of the consumer</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Resistance/denial to change in the industry</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Rigid belief in the excising business model/pricing</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Lack of awareness or acceptance of new technology</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Resolutely management strategy for physical formats</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Complexity of the industry relationships</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Hierarchical and greedy current management</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Retailer influence on manufacturer strategy</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Control of distribution</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Apple brand and the iTunes/iPod consumer propositions</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Steve Jobs/charisma</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Evolution of employees' digital skills</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>New digital format</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>Customer Relationship Management</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Music recordings rights management</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>Short-term targets and planning</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>Managing a business from market/consumer research data/strategy</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>Long-term damage to the industry due to Apple iTunes agreement and arrangements</td>
<td>3</td>
</tr>
</tbody>
</table>

The results of both content analysis procedures were compared so as to question critically the results of the original analysis by the Researcher. From this discussion, a set of triangulated themes was generated, which are shown in Table 4.4 and form the basis of the results, discussion and conclusions presented in Chapters Five, Six and Seven.

This dual content analysis process triangulated the results of the content analysis. In addition, because the Independent Researcher marked-up the transcripts directly rather than using index cards, there was triangulation of analysis techniques as well as content analysis themes.
Table 4.4  Triangulated Content Analysis Coding

<table>
<thead>
<tr>
<th>Researcher’s Theme Number</th>
<th>Independent Theme Number</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>Little interest in new technology or new markets</td>
</tr>
<tr>
<td>2/6/9</td>
<td>7</td>
<td>Management remuneration scheme</td>
</tr>
<tr>
<td>2/18</td>
<td>16</td>
<td>Planning and budget cycle</td>
</tr>
<tr>
<td>3</td>
<td>7/1/3</td>
<td>Internal culture and values</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>Customer (retailer) power</td>
</tr>
<tr>
<td>6/9</td>
<td>7/3</td>
<td>Investor power</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>Control of the distribution of records</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Control of the consumer formats</td>
</tr>
<tr>
<td>1/7</td>
<td>2/3</td>
<td>Retain the established business model</td>
</tr>
<tr>
<td>10</td>
<td>10/13</td>
<td>The correct technology proposition</td>
</tr>
<tr>
<td>10/13/16</td>
<td>10/13</td>
<td>The correct marketing proposition</td>
</tr>
<tr>
<td>17</td>
<td>13</td>
<td>The correct price structure</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>Credible Apple brand</td>
</tr>
<tr>
<td>14</td>
<td>11</td>
<td>Charismatic CEO in Steve Jobs</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>Music rights proposition</td>
</tr>
<tr>
<td>15</td>
<td>12</td>
<td>New employees with external skills</td>
</tr>
<tr>
<td>15</td>
<td>12</td>
<td>New divisions for digital</td>
</tr>
<tr>
<td>10/13</td>
<td>10/13</td>
<td>New consumer propositions/products</td>
</tr>
<tr>
<td>10/</td>
<td>10/13</td>
<td>Marketing of new digital propositions</td>
</tr>
<tr>
<td>15</td>
<td>13</td>
<td>New industry structures</td>
</tr>
<tr>
<td>13</td>
<td>17</td>
<td>Consumer market research</td>
</tr>
<tr>
<td>16</td>
<td>14</td>
<td>Consumer relationship marketing</td>
</tr>
<tr>
<td>11</td>
<td>10/11/13/18</td>
<td>The power of Apple in the development of the digital music ecology</td>
</tr>
</tbody>
</table>

4.6.3 Content Analysis Summary

The content analysis process applied to the data has been described, including the process undertaken by the researcher and the independent research partner to ensure the reliability of the coding. To illustrate how the coding was conducted by the researcher, there is a sample transcript in Appendix D, which has been annotated to demonstrate the process undertaken. Tables 4.2 and 4.3 have presented the results of the two independent coding and tabulation processes, whilst Table 4.4 gives the final triangulated coding and tabulation. This has shown that the content analysis conducted for this research is reliable.
4.7 Summary

Having considered and undertaken critical analysis of various research techniques, the most appropriate research strategy for this doctoral research was deemed to be a qualitative approach for the collection of empirical primary data. The research technique selected was a case study, with careful consideration of the robustness of data, cross-referenced with literature on change management theory. This research methodology suits the phenomenological nature of the study and produced empirical data that after robust content analysis will yield substantive results that are valid and reliable. This chapter also discussed how the lack of access to Apple Computers could be overcome by gauging the opinions of the industry and reviewing available literature on Apple.

The results derived from the chosen research methodology were subsequently critically examined and discussed using Christensen’s Disruptive Innovation theory and then used to provide recommendations for managing disruptive innovation within the UK recorded music industry. Consequently, the research techniques and methodologies identified and employed for this thesis produced data for analysis that are valid and reliable, helping to ensure that the thesis conclusions and recommendations are robust and relevant to the objectives of the research and the goal to enhance professional practice when the UK recorded music industry is next faced with innovative technology.
Chapter 5  Results of Data Analysis

5.1  Introduction

Primary qualitative data were collected through 21 semi-structured interviews (following the interview guide reproduced in Appendix B) conducted in confidence between November 2005 and February 2006 with music industry professionals. These professionals have worked in the UK and the European recorded music markets through the arrival of digital music files and the transition of music downloads from illegal piracy to mainstream retail, and their credentials are presented anonymously in Appendix C. The data were collected in the manner outlined in the Methodology and Research Design chapter so as to ensure the independence and individuality of the Respondents’ statements.

As stated in Chapter Four, Methodology and Research Design, the technique used for the analysis of the primary qualitative data in this thesis is content analysis. Content analysis of interview transcripts allows the identification of recurring themes and the frequency of statements to be codified and tabulated. The tabulation of the themes provides an impression of the convergence of the Respondents’ opinions while the coding also provides a structure for the discussion of key themes. The emerging content themes are outlined below. Many themes were mentioned by multiple Respondents, indicating a high degree of consensus. However, for a theme to be considered relevant, it did not need to be mentioned numerous times because a unique perspective carries the same validity as a construct mentioned by a number of Respondents. An examination
of the content analysis reliability has been presented in Section 4.7, with supporting information provided in Appendix D.

This Results chapter considers each Research Objective in turn, presenting under each the most relevant major themes emerging from the content analysis, supported by verbatim comments from the transcripts of the semi-structured interviews.

5.2 Respondent Theme Frequency

The semi-structured interviews with the 21 senior professionals from the recorded music industry (whose credentials are listed anonymously in Appendix C) were conducted following an interview guide (reproduced in Appendix B). Each interview lasted at least 30 minutes and was recorded. The recordings were transcribed and then the transcripts (contained in a separate confidential Appendix E) underwent content analysis as described in the Methodology and Research Design chapter. This yielded a set of codified themes and associated frequencies (i.e., the number of Respondents who mentioned the theme).

The frequency of a theme does not reflect its importance or potency. A theme being mentioned with a high frequency, i.e., by a large number of the Respondents, just indicates that the theme’s relevance generates a high degree of consensus. This is important to bear in mind because a unique insight may reveal a perspective that other Respondents were not in a position to know, and that provides a highly pertinent insight in the context of one of the three Research Objectives.
The Research Objectives cover three distinct areas so the following tabulation of the theme frequency is presented as three separate theme frequency tables (Tables 5.1 to 5.3) relating to each of the Research Objectives in turn. Under each, rather than being presented in order of frequency, the themes have been presented in a logical order that allows related themes to be discussed consecutively so as to present to the reader a clearer picture.

5.2.1 Research Objective One

*Identify the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.*

Statements made by the interview Respondents that were relevant to this Research Objective were codified into themes, which are presented in Table 5.1, together with the associated frequency.

**Table 5.1 Frequency of Respondent Themes – Research Objective One**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency (no. of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little interest in new technology or new markets</td>
<td>8</td>
</tr>
<tr>
<td>Management remuneration scheme</td>
<td>5</td>
</tr>
<tr>
<td>Planning and budget cycle</td>
<td>7</td>
</tr>
<tr>
<td>Internal culture and values</td>
<td>3</td>
</tr>
<tr>
<td>Customer (retailer) power</td>
<td>11</td>
</tr>
<tr>
<td>Investor power</td>
<td>3</td>
</tr>
<tr>
<td>Control of the distribution of records</td>
<td>5</td>
</tr>
<tr>
<td>Control of the consumer formats</td>
<td>8</td>
</tr>
<tr>
<td>Retain the established business model</td>
<td>5</td>
</tr>
</tbody>
</table>
5.2.2 Research Objective Two

*Identify the factors that created a retail proposition for digital music files distributed via the Internet.*

Statements made by the interview Respondents that were relevant to this Research Objective were codified into themes, which are presented in Table 5.2, together with the associated frequency.

**Table 5.2 Frequency of Respondent Themes – Research Objective Two**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency (no. of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The correct technology proposition</td>
<td>5</td>
</tr>
<tr>
<td>The correct marketing proposition</td>
<td>5</td>
</tr>
<tr>
<td>The correct price structure</td>
<td>4</td>
</tr>
<tr>
<td>Credible Apple brand</td>
<td>6</td>
</tr>
<tr>
<td>Charismatic CEO in Steve Jobs</td>
<td>4</td>
</tr>
<tr>
<td>Music rights proposition</td>
<td>7</td>
</tr>
</tbody>
</table>

5.2.3 Research Objective Three

*Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.*

Statements made by the interview Respondents that were relevant to this Research Objective were codified into themes, which are presented in Table 5.3, together with the associated frequency.
Table 5.3 Frequency of Respondent Themes – Research Objective Three

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency (no. of Respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New employees with external skills</td>
<td>8</td>
</tr>
<tr>
<td>New divisions for digital</td>
<td>3</td>
</tr>
<tr>
<td>New consumer propositions/products</td>
<td>3</td>
</tr>
<tr>
<td>Marketing of new digital propositions</td>
<td>6</td>
</tr>
<tr>
<td>New industry structures</td>
<td>4</td>
</tr>
<tr>
<td>Consumer market research</td>
<td>7</td>
</tr>
<tr>
<td>Consumer relationship marketing</td>
<td>1</td>
</tr>
</tbody>
</table>

5.3 Respondent Themes Relating to Research Objective One

Identify the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.

5.3.1 Lack of Technological Awareness

In discussing the arrival of new technology in the recorded music industry, the Respondents presented a view that the recorded music industry was not an early adopter of any forms of innovative technology owing to the attitude of senior industry management, which generated a culture, or internal value, that was reluctant to identify or embrace new technology. This culture permeated the industry and would stifle debate on the opportunities of new technology and the allocation of resources to the investigation of new technology and its long-term opportunities.

Respondent 01 stated “the record industry is a fairly Luddite industry. People tend to think of it as cutting edge; it is actually run by people who are cutting edge musically but technologically very back in the day” (p.2) whilst Respondent 03 stated that he “always thought they [the industry] were being sort of Luddite”
(p.3) further describing the industry as “generally slow and scared to embrace new technologies.” (p.15). “Record companies have never been the most scientific or forward-thinking and if they were it was led by usually a hardware format that would come out of the electronic companies or other industries,” said Respondent 05 (p.2). Respondent 14’s analysis of the music industry was that it had “never been an IT-driven industry” (p.4). Respondent 19 stated that technology was always considered “‘a fly in the ointment, it’s not a big deal,’ and I think there was this dismissive attitude toward the digital arena” (p.3). Some of the major global labels were identified as being the worst offenders: “Sony [the record label division] has been a company of complete Luddites” said Respondent 10 (p.6).

These Luddite tendencies were particularly problematic when it came to recognising the opportunities presented by the Internet. “There was so little familiarity or first-hand experience with the Internet at the highest level” noted Respondent 02 (p.2). Respondent 06 stated that when considering the Internet as a technology “the people at the very top of the industry, so the bosses of the record companies at the time, just did not see it as an opportunity at all” (p.3). Respondent 19 stated that “the general attitude across the board and particularly with the music industry back then was ‘this [the Internet] is never going to be a big deal’” (p.2) adding “I don’t think the music industry had any clue as to what the potential [of the Internet] was” (p.4). “The senior management were not consciously suppressing it [the Internet and digital music download file distribution], they just weren’t interested in it ... You have to remember that some of the senior executives of the record companies were the last people to
embrace e-mail ... Technology is not the culture [of senior management in the recorded music company]” observed Respondent 01 (p.4). Respondent 08 concurred: “Indeed many of the decision-makers prior to that [Napster] period didn’t even use computers. Didn’t even do e-mail. So I think that they were not connected to the Internet and not really aware of what was happening until it had already happened” (p.2). Respondent 04 stated that when the senior managers were asked whether they understood the Internet “most of them didn’t” (p.4).

5.3.2 Management Incentivisation and Focus on the Short-Term

The Respondents were asked about their opinions on the driving issue in the mind of senior record industry management when the Internet was evolving as a distribution platform and retail channel. The Respondents highlighted a culture of short-termism, linked to the attainment of management bonuses, that subdued any discussion of new opportunities that might negatively impact the current revenue target. There were no incentives to provide a future-proofing strategy for the recorded music companies. Respondent 15 stated that “the managers just wanted to keep the shareholders happy [by delivering volume and revenue growth]” (p.5). Respondent 02 stated that the CD boom delivered “growth figures which made the managers look like superheroes, which gave them such great bonuses” and then they needed to manage this to “keep your growth up for the next quarter for your bonus” (p.2) and “if I’m an executive of a major record company my interests are best served by trying to plot up in the short run sales in the old market” (p.13). Respondent 10 stated that the “record industry operates on a quarterly basis; they do not plan any longer than that” (p.3).
Respondent 01 stated the internal view and culture was "let's ship units now, let's sell records now, because that is what our bonuses are based on" and if the people who run record companies do that everybody else has to do what they are told because they work for them" (p.3). Respondent 03 stated "there is an industry of people fuelled by the need to hit their commercial targets within the next 12-month cycle ... I think that the industry is driven by the bonus system that rewards the executives of major record labels given by the performance in the quarter, let alone the 12-month period. So everyone becomes very, very focused on driving the business on a short-term basis and if that is at a cost of long-term development then 'so be it, let's make our results' ... the record industry is run by short-termism rather than medium- or long-termism" (pp.9,11,15). Respondent 05 revealed that strategic planning was not taken seriously and did not provide forward looking strategy (p.7). This was supported by Respondent 03 stating that the industry and the management were "short-sighted, arrogant and impregnable." Respondent 14 added that "culture does not change within two or three years" (p.8).

Respondent 03 explained that "the labels have become managed in a way that is economically constricting ... I think it is profit driven cycles that are unrealistic and unsustainable ... The CD model is the way they [senior managers] understood the business" (pp.3,8). Therefore the focus of the senior managers was to continue the current business model for as long as possible and investing to achieve this. Respondent 19 stated "the CD model worked ... labels were in control and all was well and good" (p.3). Respondent 06 added that "the bosses of the record companies at the time just did not see it as an opportunity at all;
they were part of another era. The CD model is the way that they understood” (p.3). Respondent 02 supported this opinion that at the time of the arrival of the Internet and digital music download files the senior management were “still thinking in terms of physical unit sales” (p.10).

After a decade of CD growth, executives wanted to continue the strategy and culture focused on CD sales. Respondent 19 stated that the “industry had a pretty good model and was enjoying some pretty good economics associated with that model” (p.3). Respondent 20 added that the management’s reaction to the impact of the Internet was “this can’t be true and we have to do more and more of the same rather than rethinking, so we do more and more of the same” (p.3). Respondent 20 continued that the management’s desire was to sell CDs, which represented “98% of the revenues. ‘Why should I care about the 2% [of alternative revenues]? I care about the 98%! ’” (p.5). This focus on the established CD business model against a changing recorded music ecology was total. Respondent 18’s view was that the music industry is “not an industry that’s receptive to change … they’re not sophisticated business people who could see objectively what the potential opportunities are” (p.2). Respondent 05 stated that pessimism was not allowed and that the opinions of dissenting voices “were not being heard” (p.3). Respondent 08 highlighted what a risk any record company executive would be taking if they were to embrace new non-physical format technology like music files or promote the digital distribution model, “The executives are under a lot of pressure to produce profit and there is tremendous risk in an organisation like that [a major label] to do something different. You know, it is a bet-your-job kind of risk” (p.4). This statement was supported by
Respondent 04 who stated that in the music industry at the senior level “the first, the prime directive is one of keeping one’s job” and this necessity was a greater motivation than “embracing the digital revolution” therefore “anything being regarded as being off-message or distracting from [the sales of CDs], that was really silenced and unwelcome” (p.3). Respondent 20 recognised this internal focus “I’m going to lose my job if we’re not hitting our targets. I can explain it and explain it but I will lose my job” and this was the “frightening element” that stifled internal debate of the new technology and opportunities (p.4). Respondent 11, who ran an online organisation, stated “there was intense opposition at the record executive level, the story of my negotiations is a story of the line record executives being steadfastly opposed to do anything different to the current model” (p.7). Respondent 21 observed that “management had made the CD and grown rich on the CD; they had no incentive to stop believing in the CD” (p.3).

5.3.3 Focus on the Customers (Retailers) Rather than the Consumers

The Respondents’ analysis of industry focus on customers revealed that the senior management regarded the retailers, and not consumers, as their customers. And for a senior management focused on driving revenue to meet targets and win bonuses, the relationship with their main, immediate customer became more and more important. Therefore, the senior management of the recorded music companies had no interest or investment in true consumer market research. The management wanted to meet the needs of the retailers, whose investment in physical distribution of CDs and expensive high street properties for consumer retailing influenced both cultures to promote the current business model founded on physical audio formats.
Respondent 12 summarised the situation over the previous CD growth period, “the industry has been, because of its size and concentration, has been moving further and further away from the interface of the actual consumer” (p.5). Respondent 08 stated “I think that a bit of it has to do with the size of the organisation, but more importantly with the culture of the organisation, lack of connection to the customer” (p.4).

Respondent 10 highlighted that the recorded music industry executives had “never invested in market research to understand the consumer’s use of recorded music and the integration with new technology ... they have no respect for the consumer; they don’t know how to deal with a consumer ... they don’t care about customers or the public’s views” (pp.4-5). Respondent 04 stated the people running major labels “never met a consumer, they’ve never been in consumer products or service business, they have never been in the retail music business, they have never sold a piece of individual recorded music, just to the buyers of major retailers” (p.10). Respondent 09 held the view that “the record industry’s customers are distributors and retailers. The record companies never met a consumer, they never interacted with them; the record industry never sold a product to a consumer ... These were the companies that had never met one of their customers before trying to serve them. It’s not that they’re incapable of doing it, but it’s that they certainly didn’t have the right people and the right mentality to launch and sustain business that focused directly on the end user” (p.3).
The major concern in the record companies was not wanting to upset their relationship with retailers. If your business is selling records through the retailers, your business is keeping the retailers sweet” observed Respondent 02 (p.10). Respondent 08 stated that in the CD business model “the customer was the retailer. The merchandising was in store” (p.2). This opinion was confirmed by Respondent 07 who clarified that the “major consumers [retailers] were the major interest” of the senior managers (p.3). The major labels’ customers were described by Respondent 10 specifically as supermarkets and high volume retailers “their customers are Tesco, that is who they sell to. They have never sold to an individual, you know, consumers, never ... The record companies never sold a product to a consumer. The record industry’s customers are CD distributors and retailers. It was the retailers that interfaced with consumers” (p.5).

The retailers understood the power of the Internet from the impact on other areas of their physical sales and considered the sale of digital music file downloads via the Internet a significant threat. “I think that retailers whined; the retailers had a lot of power and the industry listened to that for a while” explained Respondent 09 (pp.3-4). Respondent 13 made the point that “traditional retailers were nervous about that [digital sales] and I think everybody was sensitive to them, you never want to sort of piss off your biggest retailer” (p.2). This opinion was shared by Respondent 02 “I think there was a lot of pressure from retail to do something about this new delivery [model]” (p.3). Respondent 20 recounted how “we were talking about pre-releases and we had a call [from a retailer] ‘if you pre-release on your download platform we will pull all of [the label’s] repertoire off our
shelves in all our shops” (p.5). This was a dramatic call for Respondent 20 because “if you have a 25% market share retailer who says OK we will stop selling your product full stop” (p.5) the impact on the business would be dramatic.

And yet, as Respondent 15 stated “the traditional retailers are the old business model. They are dying. It was time to find and understand the new retailers, the ISPs, the phone companies, iTunes” (p.5).

5.3.4 Determination to Retain Control of Distribution

Chapter Two, Industry Background, detailed the evolution of the music industry as it embraced new physical audio format technology and how the industry’s ability to continue to control the distribution of physical audio formats has been a major control structure in the development of the recorded music industry. The recorded music industry was unwilling to dispose of processes and resources that had provided market control and consumer influence. Therefore, the digital format, distributed via the Internet, was a threat to the established industry product and retail paradigm based on physical formats. The CD boom, which had fuelled industry growth, created an internal culture that had distanced the industry from its core asset, the music recording, as enjoyed by the recorded music consumer, to focus instead on the CD unit as the core capability of the recorded music industry.

The arrival of the digital music download file was regarded from within the same mindset by the senior managers. “The industry knows that the key to their business is the distribution and the danger I think was always seen that [the
Internet] was a distribution system which might not be controlled [by the industry]” said Respondent 02 (p.4). The major labels were built on the business model “whereby they control virtually every link in the distribution chain” explained Respondent 04 (p.4), a view that was also voiced by Respondent 08 (p.3) describing the recorded music sector as “a business that is largely control” of distribution and where the major labels were convinced “they had control of their content” and the distribution networks, according to Respondent 10 (p.2).

Respondent 09 defined the major labels as “the oligopoly power held by the distributors which today are really four main companies” (p.2). Respondent 10 put it simply that the recorded music sector is a “very narcissistic industry, and egocentric, so it makes it extremely difficult and here again they’re very much into, control, control, control, control, control. So this is something that is so firmly and deeply embedded in the culture” (p.10). “The industry knows that the key to their business is their distribution … They have got such a fantastic monopoly position because it is their monopoly that controls the distribution system” said Respondent 02, (pp.4,6-7). Respondent 08 stated that the recorded music sector was merely a “distribution operation” of product to retailers (p.2). While Respondent 09 stated the majors “owned and controlled distribution” (p.3), a sentiment echoed by Respondent 04 “they control every link in the distribution chain” (p.4) and Respondent 07 stated “people tend to forget just how much effort the industry did put into developing its own distribution platforms” (p.3).

Respondents agreed that the recorded music companies built a power base through the ownership or control of the physical product distribution channel.
Respondent 09 stated that the industry used the control of the physical distribution to manage the introduction of new audio formats. The record companies “controlled every single format migration that had occurred. They introduced the CD, the LP, the eight-track, every physical format change that occurred was supported by and controlled by the industry” (p.5). “The record industry has always been very good at taking new formats to the public whether vinyl, cassette, minidisk or CD, and educating the public around this new format and reselling effectively the same music to the consumer but just based on a new piece of plastic” Respondent 05 (p.2).

This control of physical distribution and introduction of new audio formats was an established control structure for the major labels. But the digital music file and the Internet challenged this. “The danger I think was always seen that this [Internet downloads] was a distribution system which might not be controlled by them [the major labels]” Respondent 02 (p.4). Respondent 09 stated that recorded music industry did not want digital distribution, they “didn’t want a new ecosystem to develop and tried to stop it, which is sort of a silly thing because the digital download created an entirely different environment, where different sets of expertise and different players emerged to rearrange the value chain” (p.4). Respondent 05 explained that “all of a sudden the industry was being led by the consumer on a level that was far and above most people in a record company’s [understanding]” (p.2) and how the Internet “was a new distribution channel that had been bought to the record companies rather than the record companies bringing a new physical format. So it was a huge shift” (p.4). This opinion on the music industry was echoed by Respondent 09, who said that “digital was the first
format shift that not only occurred without the support of, but occurred with the express resentment of the record industry” (p.5). Respondent 10 stated that the industry believed that they had control of their content until the Internet came along and then became frantic and never dreamed that recorded music could be copied and “then redistributed on such a mass global level. Tens of millions of people around the globe could connect and share music” (p.3). Respondent 13 stated that “as an industry we were certainly surprised by the uptake of P2P [Peer to Peer]” as they had thought that it was a “fringe thing and that it really was never going to sort of take off” (p.2).

The arrival of the digital music file for download required a new way of working in the recorded music industry and the Respondents discussed the strategic skills and flexibility required in the industry to manage new consumer formats and distribution structures. Respondent 02 stated that “the industry is not very good at thinking ahead” (p.2) whilst their reluctance to embrace and licence music to the new digital format was “absolutely catastrophic” (p.5). The major labels “had spent all this money on controlling retail and now this upstart’s coming in which is going to undermine our control. Worse, they couldn’t see how they could own and control it” said Respondent 02 (p.4). Respondent 04 stated that this senior management attitude was in some extent due to the fact that those who reflected on the CD business model and the industry ownership of distribution “could only arrive at the conclusion that [Internet music] was going to end their dynasty” (p.4). The major labels “couldn’t understand how to control it and margins ... it is just a sadness really of an inept business” Respondent 03 (p.12).
5.3.5 Determination to Retain Bundling of Singles into Albums

Respondent 04 said that if the senior management did understand the reality of the changing retail situation, they feared the fact that this would result in the “unbundling of the physical product, removing the leverage and power that the industry enjoyed for some years in bundling twelve songs and selling to the guy who wants one. That was lost, so whether the traditional business model died with Napster or iTunes, the CD era was starting to die ... The dynasty was built on the inefficiency / ability to sell a 3-minute jingle for $16 or $17” (p.3,5).

Respondent 11 concurred that “the whole basis of the album business was ‘you like two tracks? You have to pay $18.99 to get them’” (p.4). This internal value or culture emphasised how, after the CD boom, the record companies had created a false perspective of the industry. The recorded music industry no longer understood the needs of the consumer, such as the music consumer’s positive reaction to digital music files and Internet distribution. The established companies’ failure to research consumer needs and trial new consumer propositions was to move them further away from the true realities of the market. This also highlighted that the consumer understood that the true asset of the recorded music industry was the music, whereas the management perceived this to be the CD proposition at the current price alongside the existing distribution and retail paradigm through the current stakeholders.

The reaction to the new digital business model was voiced by Respondent 09: the major labels believed that they could not countenance “unbundling songs” from albums, could not “charge 99 cents a song” as with that business model the industry would “destroy our CD business” (p.8) and the billion dollar revenues
that were generated because of this model. Respondent 06 stated the "CD model is the way that they understood" the industry (p.3) and the senior managements had invested the companies’ money and their remuneration packages in this model and therefore were prepared to ignore technology and trends that did not support that investment.

5.4 Respondent Themes Relating to Research Objective Two

Identify the factors that created a retail proposition for digital music files distributed via the Internet.

5.4.1 A Ready-Made Solution

Respondent 02 stated that major labels needed Apple and iTunes because "they didn’t have a technical solution" (p.6) equally Respondent 21 highlighted that "Apple was the first time that someone came up with a solution [to the Internet music issue] that didn’t involve the major investing any money and you know their shares went up, it was a massive win for big music companies" (p.4) Respondent 01 stated that Apple’s success with iTunes “was a huge relief for the industry because it showed that people, the public, didn’t have a problem paying for music, you just had to have a mechanism for them to be able to do it” (p.9). The iPod and iTunes solution was relevant to the new culture and values of the consumer because it placed the consumer and their music at the centre of the proposition. The proposition was flexible and priced appropriately to the new market forces and consumer culture that Apple had embraced, while the incumbent music industry was failing to understand or pilot new propositions that were relevant to the new market realities.
5.4.2 An Unthreatening yet Credible Company – Apple Computers, Inc

The size and track record of Apple Corporation was identified as a key factor: Respondent 12 observed that “people would have been wary of the power of Microsoft whereas at that time Apple was regarded as a niche player” (p.6). Respondent 02 stated the major labels were approached by Apple while they were still “trying to work out how they control the market themselves. Then they thought Apple only has three percent of the market so it is not such a threat” (p.6). Later, the track record and credibility of Apple Computers Corporation guaranteed that the recorded music industry “went with iTunes because they [the major labels] were going to get paid” (p.8). Respondent 01 summarised that “Apple is very secure” as a technology partner, brand and most importantly as a company that will respect the music industry and the copyrights owned within the music recordings (p.6).

5.4.3 A Charismatic Leader – Apple CEO Steve Jobs

The focus and charismatic capabilities of Steve Jobs, was noted by a number of the Respondents. On Apple’s success “the number one reason, no matter what anyone says, is the charisma of Steve Jobs” Respondent 9 (p.7). Respondent 12 stated that “Steve Jobs is a superstar so he was able to impress chief executives and get their ear” (p.5). Respondent 11 also spoke highly of Jobs “He is an amazing salesman, amazing, absolutely genuine in his enthusiasm” stating that the recorded music industry went with Apple and its CEO Steve Jobs “out of desperation” however “Jobs did come along and convince them to discard the old arguments [against the unbundling of CDs and pricing per track]. Now they [the major labels] embrace it. So you know that it was types of fears that prevented
them from doing what consumers were already doing” (p.8). Steve Jobs is credited by many Respondents as having generated an environment where the trial of the new proposition was possible by the recorded music companies. He emphasised to the established recorded music companies that the consumers desired the core asset of the record companies, i.e., their music recordings, and that the audio format was not in itself the core proposition for the consumer.

5.4.4 A Fantastic Consumer Proposition

Respondent 06 stated that a factor in the success of Apple iTunes was that “Apple was the first new business partner who really impressed the record companies. Fantastic consumer proposition, great marketing and you know also a very simple pricing model that just rode a coach and horses through all the complicated options that were out there at the time” (p.7). These themes were echoed by Respondent 07 among the reasons for the success of Apple “One, they got the technology right. Two, they got the price point right. And three, they got the marketing right” (p.5). Respondent 12 commented on the enhanced consumer proposition that Apple iPod and iTunes introduced to the market. Apple’s iTunes and iPod added the ability of music portability, to be able to transfer or burn purchased digital music off a computer onto a CD creating flexibility from downloads that increased the consumer proposition. That this ability was at the control of marketing people, not the legal teams, was “a very important change” in the development of a consumer relationship (p.6). Respondent 12 added that this was the complete package the industry was looking for. Respondent 13 summarised how the arrival of the iPod and iTunes redefined the portable music experience “what Apple was able to offer ultimately if we use that as a sort of
benchmark for what online music about in the portable field, you know, it’s so
easy to buy files, download, and create a favourites list ... you name it. How can
you do that with your Walkman? You just can’t” (p.6) and “it was just a fantastic
product ... Just a fantastic consumer proposition and the other important thing is
you know they were very, very serious and they just agreed to pay the rates that
the [record] companies wanted” Respondent 06 (p.7).

5.4.5 A Viable Deal on Music Rights
Respondent 09 praised Apple iTunes for commercialising the digital music
download file much better than the incumbent industry and other digital
download start up companies. Apple’s success was based on the ability to provide
to the consumer the recorded music they wanted at a price that was appropriate,
coupled with a “fair use” model equivalent to that provided by the unrestricted
CD. This was a proposition that the incumbent recorded music companies had
failed to embrace or trial as their culture encouraged them to attempt to retain at
all costs the business model from the CD boom years. “Apple was able to get the
service off the ground in a way that was successful with consumers was because
the labels granted rights to Apple that they had not granted to anyone else at all.
They allowed the 99 cent price point, which had not existed before; it was
basically a $2.49 price point” (p.7). The record companies granted these rights to
Jobs because “they knew that he has the ability to market a service probably more
effectively than any other people who had been banging on the door asking for
licences” and had the “financial wherewithal” to ensure that the record companies
would receive their fee for the selling of the music (p.7).
5.5  Respondent Themes Relating to Research Objective Three

Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.

5.5.1  New Business Model, New Skill Set, New Business Culture

The new digital business model emphasised the evolving culture and values of the new digital recorded music companies. Respondent 05 stated that following the acceptance of the digital file, after some resistance, the major labels were “embracing new business models, which is to be applauded ... There are new divisions in all the record companies that are called digital divisions ... the mechanics of selling digital music is completely different from physical; digital is a completely different skill factor to physical sales so, yes, there has been a cultural change in that respect” (p.6) Respondent 05 continued to describe how the recorded music companies have started to “re-establish themselves and making sure that they become thought leaders and understand what is going on and having much more control over their own future, in terms of content and massive changes in the business” (p.7) adding that “the industry has had to learn a load of new things but their willingness to try things has been quite impressive” (p.8). The incumbent recorded music companies have started to embrace change, including the new business models. This has required them to identify their consumers’ needs and to understand that the core of their industry’s proposition is not the audio format, but the content itself. Finally, the industry, with new employees driving new models, is experimenting with new distribution and pricing propositions to test technology and consumer reaction and develop the recorded music propositions for the next evolution of the industry.
Respondent 18 observed that "I think people realised that this just requires a lot more understanding, a lot more skill, a very different skill set so we've got to start now rather than waiting until it is too late" (p.6). Respondent 13 stated that the strategy was now to "monetise and digitise the various different other opportunities created off the back of the original song content" (p.8). "There's a new marketing skill-base, sure, away from products and towards licensing and typical IP asset marketing and you know they are at the forefront of it" said Respondent 06 (p.9). Respondent 13 concurred "the marketing people had to take on a new mindset which is 'this is not specialist' ... you've got to weave this into the fundamental sort of fabric of how you do business ... In the broader sense of the income that is generated by a track or by an artist, whether it's a physical CD or not" (p.9,11) it is still music revenue to be managed. Respondent 19 added that the change in the industry required "bringing in external people and I think part of it is training and part of it is just education from the top down" (p.6).

Respondent 06 defined this as a "change in culture of the record companies ... how you licence assets strategically to all of the emerging and growing entertainment channels outside of traditional music" (p.9,10). Respondent 18 added that this was "not just a format, not just distribution, but it is more than just the transformation from the LP to the CD, it is more than that, it is really a step change difference" (p.5). Respondent 02 saw an industry that "will be much more like publishing companies, [the major labels] will just license the stuff [music recordings], there will be blanket licences" (p.14). Respondent 07 stated "I think that you are going to see a business that is growing beyond 2000. I think the technology has got to the stage where really lots of new business models will be
available to us and consumers will be prepared to give up more of their hard-earned cash for the different products we can offer” (p.10). Respondent 04 saw a future with “entrepreneurs investing in culture, in a particular type of music genre, building a roster of artists that have an identity, that understand the consumer. They will become the very good content houses, those will have the healthy margins and grow” (p.6). Respondent 13 defined a “broadening of rights” that “creates new revenue streams ... it isn’t so much about whether you sell a record or not, it’s about the various different ways of generating income off the back of it in the broader sense” (p.10).

However, Respondent 03 was pessimistic, saying “I don’t think much has changed at all personally. I think that the industry has a singular misunderstanding of the pace at which the digital market will grow” (p.4).

5.5.2 Development of Consumer Research and Market Insight

The industry has changed its strategy and focus with regard to understanding the final consumer. As an industry value, understanding the consumer has been placed at the centre of decision making, and the companies are being “more aware of what the consumers are doing and even to the niche levels so there’s a lot more time and energy being spent on research and trying to understand what [and] how new technology is being adopted and what consumers are doing” said Respondent 05 (p.9). Respondent 10 agreed, talking about how the marketing function in recorded music companies was changing, “not until the last two or three years have they ever done any market research” (p.4). Respondent 14 also highlighted that it was in the last year that some major labels had begun to
undertake focus groups to “understand the needs of the consumer and to create the right products” (p.12). Respondent 09 stated that the adoption of market research by the recorded music companies allowed “for actual knowledge of who the customers are, which is something that record companies never had … To pay attention to consumers who are interactive, who our consumers are with our products and to get a bigger share of their wallets” (pp.2,8). Respondent 06 stated that some companies now had “customer strategy operations teams whilst Universal is doing lots of good things in terms of making, let’s see, its CRM [Customer Relationship Management] type activity more sophisticated” (p.6). Respondent 05 observed that being in tune with consumers was now important and it had helped the business because “the level of investment has become more scientific within record companies; the way they market their products and target consumers that digital gives them that they never had before” (p.9). Respondent 05 revealed that the recorded music companies had discovered a “new way of selling content but now they can find a new way of really clever selling” (p.9).

However, Respondent 11 felt that there was still some way to go and the record companies should still be “hiring more people who are customer-centric and customer savvy … and to pay attention to consumers, what consumers are doing, look how interactive our consumers are with our products and familiar with consumer trends and find many, many different ways to have our music used and supported by us, used in different uses for consumers, that touch consumers” (pp.8,9). Respondent 15 stated that the record companies needed to focus the market research towards understanding “14 to 21 years olds. They are the industry’s future, it is what they are buying from who and in what formats that is
what the industry needs to know because they are the first download, the first
digital generation and the way they use music today is the way of all
entertainment in the future. We have got to ask the kids!” Respondent 06 agreed
that the consumer had changed and needed to be better understood by the
industry “now that a 14 year old music fan, or an under-20 music fan does not
have a CD collection, isn’t particularly loyal to any one artist and is interested,
absolutely interested in downloading music” (p.5).

5.5.3 New Organisational Capabilities

There is an “influx of MBAs and new kinds of skill-sets that weren’t as prevalent,
so there has been a change there” (p.7) stated Respondent 05. These MBAs are
challenging the established retail proposition and consumer thinking through their
desire to understand the consumer, what they need and how they use music
within their daily lives. There are new “technical skills for new media platforms”
added Respondent 06 (p.9) whilst Respondent 07 saw a recruitment strategy that
was “bringing people into the business who understand [the music business and
commercial opportunities] in the broadest possible sense, to better understand the
changing culture, better understand our consumer base” (p.8). Respondent 09
stated that they had “hired people who are aware of digital marketing and digital
distribution … I think that the phenomenon around iTunes has exposed a lot of
people to the fact that the Internet can deliver a financial return” (pp.7,8).
Respondent 12 stated that the music business had changed and that [Apple CEO]
Steve Jobs had helped dramatically “saying ‘look it’s not as scary as you think it
is. I can make money for you out of this’ and showing that he could” (p.7). So the
recorded music industry is commercially and culturally developing new values,
new processes and re-allocating resources, using these to link their core asset, the music recordings, to the needs of the consumer through any relevant commercial music platform. This was summarised as the industry having developed “an awareness that there needs to be new skills throughout the organisation, to take best effect of the changes” said Respondent 07 (p.8).

Respondent 06 agreed that the record industry had developed this awareness of its weakness in relating to consumers, testing new propositions and maximising the value of its core asset, but felt that its approach was to work around it, rather than address it head on. “I think that the [record] companies have realised ... that they’re not very good at dealing with customers directly .... What they’ve realised is that in order to do good deals that really change the product, change the delivery of it, offer the consumer something really compelling, [they need] to do good deals with the likes of Vodafone and Apple. All these guys are pretty good at understanding their consumers; they research their consumer base much more thoroughly” (p.6).

5.6 Additional Respondent Theme

Through the process of content analysis, a theme emerged that was not assigned to one of the three Research Objectives. The decision by Apple to become involved in recorded music retail and distribution was negatively commented on by some Respondents. In addition to discussing the positive elements for the recorded music industry of working with Apple, the Respondents wanted to discuss the long-term benefits for Apple of operating in the consumer media and entertainment sector. Respondents went so far as to suggest that the entrance of
Apple into the market would have negative long-term implications for the recorded music industry. However, these negative comments reflect the continued concern over distribution and format control rather than the long-term development of consumer propositions that promote the core asset of the recorded music industry.

5.6.1 A Fatal Move for the Record Industry?

Respondent 11 felt that in the long-term, Apple was not interested in the music industry, that Apple is actually interested only in selling digital hardware. The music, so important to the major labels, was to Apple simply a means to an end “I don’t think they really care about that [iTunes] all that much ... the business model of that doesn’t affect his device sales” (p.11). Respondent 12 echoed this theme “I think at the moment it [digital music] has certainly done much better for iTunes, for Apple than it has done for the industry.” Respondent 05 stated that “iPod does nothing for music industry. People who buy this device with a capacity of thousands or tens of thousands of songs end up buying statistically a handful of songs” (p.5). Respondent 09 felt that Apple was “eating the lunch of the record companies ... record companies were losing $2.7 billion globally in sales and [Apple] gave back a couple of hundred million dollars in feed. That was shrewd business marketing on the part of Apple” (p.5). The views of Respondent 09 highlighted that iTunes may not be the “triumph that it has been heralded as and we may look back and say ‘boy, that was a fundamental misstep that took down the entire industry’ ... You know that iPod sales are not driven by iTunes and you see Apple moving away from music as its primary content” (p.6).
The reaction of some Respondents to the success and influence of Apple in the retailing and distribution of recorded music highlights that the new values of understanding the consumer have not fully permeated the industry. The concern over the success of Apple reveals a desire to control distribution and pricing, a legacy value of the recorded music industry. This theme highlights that the industry needs to work harder to communicate the new strategy of both supporting the legacy CD format whilst embracing the new digital retail opportunities that consumers are embracing.

5.6.2 A Rotten Apple

The Respondents' critical statements are echoed in the music press, with Michael Nash, Digital Strategy Chief of Warner Brothers, stating that “the music industry has let Apple get too much power in the digital music downloads market” (Aughton, 2005, p.1). ABI Research (Sistla, 2006) describes the iPod and iTunes as Apple Computer's “Trojan Horse” in the developing, expanding and lucrative home entertainment market going on to say that the company is poised to beat the competition to delivering consumer's needs (www.abiresearch.com).

However, the music industry was supportive of Apple when launching iTunes. One music executive stated that “everybody wanted to be damned sure their company was involved” (Young and Simon, 2005, p.291). Hilary Rosen, Chief Executive of the RIAA (Recording Industry Association of America) stated that “there was scepticism that he [Steve Jobs] could pull it [iTunes] off,” but when the iTunes website was launched, it was described as a “new era for digital music consumption” (www.apple.com).
Therefore the critical statements of the Respondents and other members of the industry could be a reaction to the success of iTunes, as Apple has become the dominant supplier in the marketplace (Hemel, 2004) due to the vast majority of digital music sales being made by iPod owners (Aughton, 2005).

The above quotes highlight how Apple’s reputation went from being the recorded music saviour to global nemesis. An investigation could have been conducted into the relevance of the threat to the record music industry from Apple’s strategy. However, Apple as a company is extremely secretive. In 2005, Steve Jobs stated “Well, you know us. We never talk about future products. There used to be a saying at Apple: ‘Isn’t it funny? A ship that leaks from the top.’ So I don’t wanna perpetuate that. So I really can’t say” (Tapper, 2005, p.2). Sandoval (2005) states that Apple Computers is also an aggressive litigator to ensure corporate security. In December 2004, Apple sued 25 unnamed individuals – presumed to be Apple employees who allegedly leaked confidential information (www.cbsnews.com). This policy of secrecy has also generated a number of books on Apple Computers and CEO Steve Jobs, such as Stross (1993), Linzmayer (2004) and Young and Simon (2005). These books have described the aggressive and demanding instincts of Steve Jobs and how this is reflected in the corporate personality of Apple Computers, Inc.

In summary, the strong opinions expressed by some of the Respondents did point to a possible further research objective. However, the lack of access to the thoughts and opinions of Apple executives on the state of the recorded music industry, the reaction to the record companies’ criticism of Apple’s success and
the development of Apple's future role in the home entertainment market, made a valid and reliable investigation of this area impossible within this research.

5.7 Summary

The content analysis of the primary data collected through the 21 semi-structured interviews with recorded music industry professionals generated a number of recurring themes. These themes have been presented according to how they relate to the three Research Objectives:

1. Identify the factors that influenced the UK recorded music industry's reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.

2. Identify the factors that created a retail proposition for digital music files distributed via the Internet.

3. Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.

The results of codifying the primary research data have included remarkably consistent themes from the expert interviewees as they provided their thoughts on the changing recorded music industry.

The next chapter of the thesis discusses these Respondent themes within the framework of the appropriate theories on reacting to, managing and prospering from the arrival of disruptive innovative technology in an established marketplace.
Chapter 6  Discussion of Results

6.1  Introduction

Chapter Three, Literature Review, investigated the secondary quantitative data collected from the BPI using Foster's (1986) S-curve theory and Chapter Five, Results of Data Analysis, analysed the codified statements from the interviews. This chapter, Discussion of Results, will bring together the results of the S-curve analysis and the content analysis, with the other Literature Review findings. This discussion will identify correlations between the theories considered in the Literature Review and the data analysed. The discussion will also recognise where there is no correlation between the data and the theories or where the theories need to be developed to provide a more appropriate fit with the results. The outcome of this will be the integration of the results and existing theoretical frameworks to facilitate discussion of the stated Research Objectives, including the development of a new strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation impacting the marketplace.

6.2  Discussion of Research Objective One

Identify the factors that influenced the UK recorded music industry's reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.

Through the primary data collected and analysed, it is clear that there was more than one factor that influenced the response of the recorded music industry with
regard to digital music files and their distribution via the Internet. There are several prominent themes arising from the primary data, and these correlate with the theories considered in the Literature Review.

This discussion of Research Objective One concentrates on the recorded music industry management’s reaction to the new technology’s arrival in an established market, whether the new technology constitutes disruptive innovation as defined by Christensen (2000), and the application of other theories on new technology. It also provides an analysis of the Resources, Processes and Values capabilities, as defined by Christensen (2000), within the recorded music industry and how this was responsible for the industry’s reaction.

Chapter Three, Literature Review, summarised Christensen’s (2000) five Principles of Disruptive Innovation and the Consistent Characteristics of disruptive technologies and Chapter Five, Results of Data Analysis, identified and codified themes from the interviews. This discussion of Research Objective One considers the correlation between the data and various academic theories.

6.2.1 Retailers’ Influence on Management Decisions

During the content analysis of the primary data collected from music industry interviews, it became clear that the Respondents made numerous statements referring to the power of the established retailers to exert influence on record industry management decisions. Whenever the recorded music industry’s management discussed introducing new trading paradigms and products, whether disruptive or sustaining, to the incumbent industry structures, the retailers were influential. In the development of downloadable digital products, the established
retailers of physical music formats like CDs attempted to restrict the record companies' adoption of the new audio format and the development of distribution through the Internet. This is an example of fear of, or resistance to, change, as discussed by Hosking and Anderson (1992) and King and Anderson (1995).

Respondents emphasised that the traditional retailers wanted the record companies to produce only retail audio formats that suited the established retail paradigm of physical audio formats. Respondent 02 (p.10) explained that optimising retailer relationships had been the strategy of the manufacturers. Respondent 20 stated that the retailers, as the record companies' immediate customers, were threatening recorded music manufacturers that if they engaged with digital downloads the retailer would stop stocking their record label's physical recordings on CD. Wilson et al. (1986) state that organisations become opposed to change and culturally inflexible when a substantial shift in the power balance or operational culture seems likely. Therefore, the identification of a new consumer proposition and retail paradigm by an industry that has become successful within the current retail paradigm (which its stakeholders therefore understand and support) is unlikely if not impossible.

Christensen (2000, p.117) in defining his first principle of disruptive innovation stated that "companies depend on customers and investors for resources; it is a company's customers who effectively control what it can do and cannot do ... This observation supports a somewhat controversial theory called resource dependence, propounded by a minority of management scholars, which posits that companies' freedom of action is limited to satisfying the needs of those
entities outside the firm (customers and investors, primarily) that give it the resources to survive.” Christensen (2000, p.147) further states that “customers of established firms can hold the organisations captive ... to keep them from commercialising disruptive technologies.” Christensen and Raynor (2003, p.31) stated that “companies trying to meet their customers’ needs eventually overshoot their customers” allowing for “disruptions and displacements that change the basis of competition.”

Therefore the established retailers' protectionist policy to promote the physical retail format was set not only to damage the recorded music companies but also in the long-term the retailers themselves. To overcome the digital technology threat, Moore (1998) would suggest that those who are the established dominant suppliers in a marketplace should always be the first to embrace new technology propositions to ensure their long-term dominance of the marketplace, rather than adopting a short-term protectionist strategy around the current retail proposition that is bound to fail as consumers find alternative suppliers offering the new consumer proposition.

The protectionist strategy adopted by the established manufacturers and retailers during the recorded music industry’s evolution to digital products created an environment that would force the consumer proponents of the new technology to seek alternative distribution and retail partners outside of the established distributors and retailers. Rather than embracing the technology and incorporating the digital music file and Internet distribution into the corporate proposition, the established companies attempted to prevent a technology and
consumer format that was already rampant in society. Wilson et al. (1986) noted that the “out-of-the-ordinary” shift to a new technology can impede any form of incumbent evolution strategy. The technology challenges the existing knowledge, power relationships and can break through to the market with a non-traditional proposition.

Christensen (2000, p.258) advocates the theory that all manufacturers and retailers should realise that “products that do not appear to be useful to our customers today may squarely address their needs tomorrow. We cannot expect our customers to lead us towards innovation.” However, it is clear that the recorded music industry’s reaction to the new digital technology was to allow the demands of its customers (retailers), rather than its consumers’ needs, to influence their response to the opportunities of the evolving technology propositions. Rather than adopting a policy to understand the evolving digital opportunity such that the recorded music manufacturers could react and successfully influence the market evolution, the high street retailers’ powerful customer relationships and supply chain control were able to inhibit that activity leaving the industry blind to the changing market and opportunities. This discussion of the Respondent theme data within the theoretical framework of Christensen (2000) shows a correlation between the primary data and the theory of disruptive innovation within the recorded music industry.

6.2.2 Investors’ Influence on Management Decisions

The established retailers were not the only stakeholders seeking to control the agenda of the recorded music industry’s digital development. The influence of
the investors on the companies' senior management tended to focus decisions and resource allocation to meet the growth needs and expectations of these prominent stakeholders.

Therefore any new product investment, market progress or technological developments by recorded music companies towards instigating new consumer propositions needs to be considered in the context of the expectations and influence of these powerful stakeholder groups.

The primary data analysis provides evidence of the aspiration of recorded music management to achieve the company's financial performance projections and therefore to meet the needs of these influential stakeholders and in the process to protect the level of remuneration and bonuses for senior management members. Respondent 08 summarised the influence of investors when stating that “the executives are under a lot of pressure to produce profit” (p.4) which was echoed by Respondent 15 (p.5). Whilst Respondent 10 (p.3) described the short financial performance timeframe as leading to a myopic planning cycle, with the investors' expectations driving the operational resource allocation. This desire to maintain “the current equilibrium position” was considered by King and Anderson (1995, p.169). Their analysis identified that there are internal forces that will resist innovation, owing to the established working practices and culture that encourage the incumbent workers to ignore the changing marketplace.

6.2.3 Management’s Lack of Interest in Emerging Markets

After a decade of expansion in the CD market, executives were relying on this growth to continue. So the strategy and culture was focused on maximising CD
sales with a myopic view of any alternative opportunities, especially those that had been rejected by the retailers. Respondent 19 (p.3) discussed how successful the manufacturers’ retail relationships had been while Respondent 01 (p.3) described a culture focused on sales volumes linked to management remuneration packages. As Christensen (2000, p.35) summarises, if the structure of an organisation has remained very similar in processes, products and stakeholders then “an organisation’s historical choices about which technological problems it would solve and which it would avoid determine the sort of skills and knowledge it accumulates. Technological change destroys the value of competencies previously cultivated and succeeded.”

The recorded music labels’ managements were focused on achieving sales targets to meet the financial targets and release their bonuses. This encapsulated the recorded music industry’s processes and values at the time that the digital opportunities were unfolding. Managing the organisation to achieve these physical sales targets was relatively straightforward because the processes and values were designed to attain that result. An organisation’s capabilities reside in their processes and values, so when they become embedded in the culture, change can become extraordinarily difficult (Christensen, 2000, p.195). The creation of an embedded culture that will obscure evolving markets was discussed by Bouwen and Fry (1991). The challenge for industries adapting to new technology is to adjust their employees’ cognitive schemas to the new business model, consumer proposition and retailing patterns.
The corporate and commercial focus on the billion dollar CD market did not encourage a management culture that supported investigation of technological innovation opportunities, especially ones in embryonic markets that required new retail paradigms. This lack of interest in embryonic markets from an incumbent organisation in a multiple billion dollar global market is not uncommon and attributed by Christensen (2000, p.xxv) to the fact that “no new markets are that large. As a consequence, the larger and more successful an organisation becomes, the weaker the argument that emerging markets can remain useful engines for growth.” Christensen (2000, p.139) continues stating that “small, emerging markets cannot solve the near-term growth and profit requirements of large companies.” In the early stages of retailing the digital music file and Internet distribution, the market and the associated revenues were too small and unpredictable when considered against the revenues of the global recorded music market from selling the CD. The return, by any metric, did not seem to justify for the major labels any resource investment.

The Respondents’ statements emphasise that in the early days of digital music on the Internet, the insignificant market size and the limited impact of the new technology contributed to the record companies’ managements’ dismissive reaction to the new technology and market opportunity. Respondent 06 (p.3) observed that the record company management teams had no experience of this type of product innovation or market change.
6.2.4 Management’s Determination to Retain Control of the Physical Distribution Network

The interviews indicate that the record companies’ physical audio format distribution network was an example of a stakeholder’s investment and control that became a debilitating factor, limiting the investigation of the new technology. The major labels’ investment, development, maintenance and relationships with the operators of the physical distribution network for the delivery of audio formats to retail customers was a process and also an internal value that provided major labels with control over the music industry and influenced management decisions.

Respondent 04 (p.4) stated that the major labels’ businesses were built on an oligopoly that controlled the distribution of recorded discs, which was corroborated by Respondent 02, (pp.6,7) and Respondent 09 (pp.2-3). This ethos of control and managing distribution, with great enthusiasm, fits the definition of a core competency and value creator while simultaneously representing a process and value that prevented the senior management from understanding and embracing a new retail channel, weakening the development of the sector. Bolman and Deal (1999) agree with Christensen; they state that leaders must realign structural patterns and establish new working practices to support the new technology marketplace.

6.2.5 Management’s Lack of Interest in New Technology

The recorded music industry’s management’s entrenched traditional views on product and structure combined with digital myopia were also factors that
enabled Apple’s iTunes to establish an operation in digital music retailing. Their lack of interest and belief in technology allowed Apple to gain concessions from the record companies covering flexibility for consumers (e.g., unbundled albums) and commercially attractive licensing agreements for recordings. Apple’s ability to create and build a market almost dismissed by the major labels owing to its embryonic nature, highlights the issues for incumbent manufacturers, “it becomes progressively more difficult for them to enter the even newer small markets destined to become the large one of the future” (Christensen, 2000, p.xxiv), causing them to miss out on longer term opportunities.

The senior management of the record companies perceived the digital music market as small and felt that even if Apple Computers and iTunes was successful in the digital domain, the main market of CD sales would not be affected. Respondent 06 (p.6) and Respondent 12 (p.6) highlighted that Apple Computers was considered a small player, operating in a small market and therefore unlikely to change the music industry or the habits of the majority of music consumers. Respondent 19 (p.3) expanded on this perspective stating that it was not just Apple that was treated with derision but the impact of the Internet and digital music files in general.

These Respondents’ statements almost define Christensen’s (2000, p.xxiv) disruptive innovation principle that “small markets don’t solve the growth needs of large companies.” The recorded music industry wanted to prevent the digital piracy but did not want to invest resources in the market owing to the small market size and the low returns from such an embryonic market, even though all
projections predicted a substantial market for digital music. It was only Steve Jobs and other entrepreneurs who saw the long-term value of establishing their companies and brands in the digital music marketplace.

The influence of entrepreneurs and their desire to become advocates for technology is an established business paradigm of new markets. It is natural that entrepreneurs are looking for new opportunities and Christensen (2000) states that disruptive technologies are initially developed to solve the problems of individuals who do not participate in the main markets. However, as the technologies and markets evolve, the once disruptive technology becomes accepted by the majority and subsequently becomes fully developed and integrated into highly competitive products or processes that challenge the conventional products and established market relationships. “This happens because the pace of technological progress in products frequently exceeds the rate of performance improvement that mainstream customers demand or can absorb... The basis of product choice often evolves from functionality, then to convenience, and, ultimately to price” (Christensen, 2000, p.xxviii).

6.2.6 Management’s Lack of Customer Insight

The application of Foster’s (1986) S-curve theory to the recorded music market demonstrates the changes in recorded music formats covering a period of over 30 years including the creation of new markets from the audio cassette to the CD and now the digital music file. The success of these technologies in becoming the most potent audio format in the recorded music industry demonstrates the value of the theory.
With the introduction of the digital music file, the capability of the technology was quickly understood by technically-savvy consumers but the actual sale of digital music files was slow. This slow reaction by the established recorded music companies allowed the development of an illegal music marketplace and an underground consumer culture through the creation of the Napster MusicShare programme. However, when the recorded music industry accepted that the digital download format was appropriate to the consumer’s needs, the impact and influence of the single download format on the music industry was dramatic. Digital single sales overtook CD single sales in 2005 and in the process demonstrated a key attribute of disruptive innovations, in that they are “fully performance-competitive within the mainstream market against established products” (Christensen, 2000, p.xxvii).

For companies where technological innovation can change markets dramatically, Christensen (2000, p.xxvii) adds to his Principles of Disruptive Innovation the importance of monitoring the markets and consumers at all points along the value chain. “Only those companies that carefully measure trends in how their mainstream customers use their products can catch the points at which the basis of competition will change in the markets they serve.”

This interest or investment in how mainstream consumers adopt and use new technology was not a core skill of the recorded music industry and this weakness created the environment for the digital download technology to disrupt the market. Respondent 10 (pp.4-5) highlighted that the recorded music industry
executives had never invested in market research whilst Respondent 13 (pp.2,4) pointed to the lack of interest in the Internet, e.g., peer-to-peer file sharing.

Christensen (2000, p.220) appreciated the power of market research and the ability to monitor the movements and trends of the market stating “it is often the very attributes that render disruptive technologies useless in mainstream markets that constitute their value in the new markets.” For Christensen (2000, pp.220-221) the “companies that have succeeded in disruptive innovation initially took the characteristics and capabilities of the technology for granted and sought to create a new market that would value or accept those attributes” and in so doing sought “to build or find a market where product competition occurred along dimensions that favoured the disruptive attributes of the product.”

With their little interest in new or established technology, the value of Internet distribution was considered limited by the senior management of the major labels. The development of the digital music download and Internet distribution was driven by technologists who wanted to improve the process for collecting and sharing music files, which was something that the senior management of the labels did not understand nor want.

In the case of the digital music download, the weakness of not being part of the mainstream music industry became a strength because it allowed the development of the Internet distribution of music files without the knowledge or influence of the major labels, creating completely different digital product attributes and values to those of the physical market for recorded music, e.g.,
CDs, leading to a distinct and unique proposition for digital music in the recorded music ecology.

The ecology that represents the best conditions for a disruptive technology to take off is one where the established companies see no possibility of value creation in understanding and researching the long-term needs and consumer usage of new products or processes in the market. The recorded music companies’ managements concentrated on the immediate market’s sales revenues and generating short-term growth and consequently employees were motivated accordingly. Respondent 03 (p.9,11) summarised the situation as an industry focused and motivated by the need to hit commercial targets within the next 12 month cycle.

This short-term approach adopted by established companies’ management teams correlates with Christensen’s (2000) theory that disruptive innovative products have to be created by the application of technology and therefore they can’t be analysed in the market. This management conundrum is magnified when applied to new technologies in the embryonic stages of development. The inability to quantify and therefore budget appropriately is alien to established internal processes in large businesses. “Sound market research and good planning followed by execution according to plan are the hallmarks of good management” posited Christensen (2000, p.xxv). However, when disruptive innovative technology enters a market there is no understanding of how it will be used by consumers, the likely rate of adoption, nor the impact on established retailers. Christensen (2000, pp.165-166) summarises this Principle of Disruptive
Innovation as “markets that do not exist cannot be analysed: suppliers and customers must discover the new product or process together. Not only are the market applications for disruptive technologies unknown at the time of their development are unknowable ... Applying inappropriate marketing, investment, and management processes can render good companies incapable of understanding the opportunity for the new markets in which ... disruptive technologies are first used” and such companies can also have “great difficulty in spotting the advent and predicting the size of new markets.” The embryonic marketplace cannot readily be measured and so in an organisation where everything must be measured this then creates a conflict in culture and systems that inhibit the investment in new technology.

6.2.7 Management’s Fostering of an Anti-Change Culture

Measurement is just one element of internal culture that can control the interest in and development of new markets. Christensen (2000) refers to the internal processes and systems, both official and unofficial, that are responsible for the development of values and culture, including the creation of group think and dogmatic corporate mindsets, which are inflexible to new technology, markets and processes. These rigid perspectives of corporate culture and values are the criteria by which decisions are made and, both consciously and unconsciously, they influence a company’s development.

This influence on corporate development happens because the company culture ensures that the approved management decisions are consistent with the internally promoted strategic direction and the business model of the company.
Christensen and Raynor (2003, p.185) stated that an “organisation’s values are the standards by which employees make prioritization decisions ... whether one customer is more important or less important than another, whether an idea for a new product is attractive, marginal and soon on. At the executive tiers, these decisions often take the form of whether or not to invest in new products, services or processes.”

The disabling power of the organisational culture and values in the major recorded music labels was described by the Respondents as a major force on the consideration of technology and opportunity. Respondent 06 (p.3) stated that when senior management members were considering the Internet as a technological opportunity – a new audio format and distribution model – there was little interest. This was supported by Respondent 01 (p.4) and Respondent 19 (p.3). The record companies’ senior management prioritisation did not feature the emerging download technology.

Respondent 01 (p.3) commented on a management focused on short-term gain rather than long-term survival, illustrating the senior management teams’ focus on CD sales and their limited interest in technological development. This then constrained internal interest and resource investment in development areas such as Internet distribution. Respondent 03 (p.5) and Respondent 04 (p.3) described an industry culture that was not interested in managing change and actively silenced any discussion on the matter.

The interviewees’ statements also recognised the challenges for senior management of record companies in creating new markets in response to
innovative technology. The focus of the senior management of record companies on the established markets with their established distribution structure was in part a symptom of the fact that the incumbent industry leaders did not understand the potential impact of downloads or the market opportunity of the digital technology.

Respondent 03 (p.15) stated that the industry was generally reluctant to embrace new technologies, industry change or management strategy. This was supported by Respondent 13 (p.2) and Respondent 05 (p.7). Respondents also indicated that significant issues remain in this area. Respondent 02 (p.6) and Respondent 03 (p.4) said that there was a singular misunderstanding of the pace at which the digital market will grow. This misunderstanding of the rate of market change was reflected in the industry's lack of desire to change and its slow internal speed of evolution. Kotter and Schlesinger (1979) noted that industry change needs to be an ongoing and evolving process. This creates a flexible and open approach to evolution within markets and organisations. If this value and culture of change is not present, then the business and market will not embrace change and will therefore act defensively when new technology threatens the established commercial paradigm.

6.2.8 Originality of Christensen's Theories

The Respondent themes correlate not only with the work of Christensen but also with that of other researchers. It is also interesting to note that some of the points incorporated into the theories of Christensen have been identified by other academics as well. Some of these theories on the impact of technology and
market change pre-date the theories of Christensen, therefore Christensen could be challenged as a theory aggregator rather than a theory creator developing independent theories as the foundation of his work.

6.2.9 Confirming Disruptive Innovation

Although it could be challenged that Christensen has merely aggregated others' theories on change, his overarching theoretical structures for identifying market change are insightful for researchers who are looking to identify disruptive technology. The Literature Review presented a summary of Christensen’s (2000) Consistent Characteristics of Disruptive Technology, drawing out four significant features of disruptive technologies, that can be used here to determine whether the digital music file and its distribution via the Internet was indeed a disruptive (as opposed to sustaining) innovation.

6.2.9.1 Disruptive Innovations Create New Value Propositions

The Respondents spontaneously described the digital download, as commercialised through Apple’s iPod and iTunes, as a new value proposition, highlighting its greater convenience as well as its cheapness in particular. Respondent 06 (p.7) and Respondent 07 (p.5) both articulated the point that Apple has developed through the application of disruptive technology a product proposition that the consumer wanted, one that was convenient for users and reliable in both product delivery and transaction.

This new retail proposition includes the ability for the consumer to download through the Internet simply one track rather than being frequently obliged to buy a whole album, as in the physical marketplace, and this made the process of
purchasing music considerably cheaper in the digital marketplace. As Respondent 04 (p.5) and Respondent 11 (p.4) described, the industry had become accustomed to selling a complete CD for $16-19 rather than a single track for $0.99, while Respondent 09 (p.7) discussed that the fact that Apple had created this $0.99 price point per track for the first time.

Greater convenience and reliability are also typically features of disruptive technologies, according to Christensen (2000). The concept of convenience and reliability is a developing factor in the creation of better services to the digital music consumer. For example, the Napster MusicShare programme was developed in response to the frustrations of the early digital music enthusiast operating in an unregulated and illegal digital marketplace on the Internet; it was hard to locate and download desired music files.

These Respondent themes and statements corroborate with Christensen’s theory (2000, p.221) which states that “disruptive technology often succeeds both because it satisfies the market’s need for functionality, in terms of the buying hierarchy, and because it is simpler, cheaper, more reliable and convenient than mainstream products.”

6.2.9.2 Disruptive Innovations are Insignificant at First in the Mainstream Market

The management of the UK recorded music industry felt that the digital music file distributed via the Internet represented an insignificant market compared with the main commercial opportunities of the industry, principally surrounding the CD. Respondent 13 (p.2) and Respondent 06 (p.3) stated that the new technology
was not perceived as a new money-making opportunity. Christensen (2000, p.xxv) states that “many large companies adopt a strategy of waiting until new markets are large enough to be interesting.” This strategy allows the disruptive technology to become established and dominate the market as the overall market size grows. The disruptive technology’s revenue potential at launch is small and the return on resources limited, which is highlighted by Christensen (2000, p.151) as “small markets cannot satisfy the near term growth requirements of big organisations.” Therefore, a disruptive technology in its early stages adds no value to the mainstream market organisation, but by ignoring it they risk allowing other companies to take the product to maturity and to challenge the established paradigms of the mainstream marketplace.

6.2.9.3 Disruptive Innovations are Successful First in Emerging Markets

Christensen (2000, p.248) notes that disruptive products or processes often require a disruptive distribution channel to reach the consumer. “It has almost always been the case that disruptive products redefine the dominant distribution channels, because dealers’ economics – their models for how to make money – are powerfully shaped by the mainstream value network, just as the manufacturers’ are … The reason destructive technologies and new distribution channels frequently go hand-in-hand is, in fact, an economic one. Retailers and distributors tend to have very clear formulas for making money … Just as disruptive technologies don’t fit the models of established firms for improving profits, they often don’t fit the models of their distributors, either.” Therefore for the disruptive technology to become successful it needs to create its own emerging marketplace.
The establishment of the digital music download audio format and the ensuing development of an alternative retail and distribution structure via the Internet, bringing with it new retailers and distributors, further emphasises the importance of alternative distribution as an element in Christensen's (2000) disruptive technology theory framework. The Respondents understood the symmetry of disruptive technology, disruptive distribution and emerging markets; for example, Respondent 15 (p.5) highlighted the death of the old business model and the need to understand the digital market.

The development of digital distribution through the Internet allowed the consumer proposition to be developed and delivered without the influence of the established retailers, who had previously been hostile to digital music files. The emerging market was created in spite of the reluctance of the record companies and attempts to impede it by the traditional retailers, which instead created the opportunity for a new retailer to disrupt the established retail paradigm. Christensen (2000, pp.220-221) states “it is often the very attributes that render disruptive technologies useless in mainstream markets that constitute their value in the new markets” and the “companies that have succeeded in disruptive innovation initially took the characteristics and capabilities of the technology for granted and sought to create a new market that would value or accept those attributes” and in so doing sought “to build or find a market where product competition occurred along dimensions that favoured the disruptive attributes of the product.” Therefore, the statements of the Respondents are also consistent with this characteristic of disruptive innovation.
6.2.9.4 Disruptive Innovations Create a New Business Model

In the case of the digital download, the new value proposition elements of being cheaper and smaller than the established product were the main elements of creating a new business model. These, along with the disruptive distribution technology, created a new cost structure and price point.

It has been discussed how unbundling albums into single tracks created a lower per track price point, leading potentially to lower revenue. Although there is no physical product to manufacture and ship, the overall retail price has reduced and therefore margins and profits are lower. Christensen (2000, p.158) states that disruptive technologies require companies to change the market's matrix of success because “companies that cultivate those markets had to develop cost structures enabling them to become profitable at a small scale.” Christensen's (2000) disruptive technology characteristic relating to its business model is consistent with the outcome of commercialising digital music files and Internet distribution.

6.2.9.5 Disruptive Innovation Summary

Research Objective One asks whether the digital music file and its distribution via the Internet was a disruptive (as opposed to sustaining) innovation. In this discussion, characteristics of disruptive innovation, as described by Christensen (2000), have been identified in the Respondents' statements about the digital music download. This correlation has been observed and can be used in further discussion of factors that influenced the UK recorded music industry's reaction to digital music files and their distribution via the Internet.
6.2.10 Organisational Capabilities

This discussion of Research Objective One and Christensen’s (2000) Principles of Disruptive Innovation has revealed a high degree of correlation between the data and theory. However, to understand the factors that influenced the record companies when evaluating and rejecting the new digital technology requires the consideration of the codified data within the framework of Christensen’s (2000) Resources, Processes and Values theory.

Christensen (2000, p.xxvii) stated “an organisation’s capabilities reside in two places. The first is in its processes – the methods by which people have learned to transform inputs of labour, energy, materials, information, cash, and technology into outputs of higher value. The second is in the organisation’s values, which are the criteria that managers and employees in the organisation use when making prioritisation decisions. People are quite flexible ... but processes and values are not flexible.” Furthermore, “the very processes and values that constitute an organisation’s capabilities in one context, define its disabilities in another context.”

Resources, Processes and Values (RPV) is a theory used by Christensen (2000) to account for the strength and flexibility of a company’s capabilities and resources. This framework can be used by researchers to study markets and companies that have been faced with innovative technology to understand the attributes of the organisation involved that will have a bearing on the company strategy. Christensen (2000, p.191) has used the framework extensively to analyse the capabilities of companies exposed to “116 new technologies that were introduced
to their industries” and then “to understand the differences in companies’ track records” when dealing with and adapting to disruptive technology.

RPV theory assists both academics and company managers in understanding whether the organisation is capable of tackling the challenges of innovative technology. Accordingly, RPV theory as outlined in Chapter Three, Literature Review, is another proven Christensen (2000) framework from which to examine the codified results from Chapter Five in addressing the first Research Objective.

6.2.10.1 Resources

Christensen (2000, p.186) states that “resources are the most visible factors that contribute to what an organisation can and cannot do,” where the term “resources” covers all assets of the company. In the context of the recorded music industry, these resources include all the personnel and the senior management and their business focus. The Respondent themes drawn out in Chapter Five identified that the focus of the senior managers was to continue the current business model and investing to achieve this. Respondent 19 (p.3) outlined how the management wanted to replicate the current success of the CD business model. This management approach limited the human resources available to the companies because they did not bring in people who understood the developing market, or developing markets in general. As a result, their ability to evaluate and manage new opportunities was compromised.

The personnel strategy had an unhelpful impact on the available knowledge and resources. The management focus remained on the established technology and products and they refused to consider the alternative trading paradigm of the
digital download or to listen to those who tried to highlight it. The established
technology and product distribution structures remained the dominant resource
and culture within the major recorded music labels. The strategy and investments
to date, and the established structure and management that controlled the physical
infrastructure and formats continued to the detriment of developing any digital
opportunities and capabilities. Respondent 09 (p.3) and Respondent 10 (p.5) both
commented on how the manufacturers owned the distribution channels but how
within that structure they never sold directly to the public, dealing instead only
with retailers.

This sales and customer strategy weakened the record labels and created a
resource deficiency of consumer insight and market research into the developing
digital ecology for the enjoyment of music. According to Respondents, such as
Respondent 09 (p.3) and Respondent 10 (p.4), this market research and consumer
insight deficiency developed because the established recorded music
manufacturers had never invested in market research to understand consumers or
new technology, had never met one of their customers and didn’t have the right
people and the right mentality to launch and sustain a business that focused
directly on consumers.

The record companies had human resources of CD specialists and physical
format distributors but their human resources gaps meant that they had limited
information on new technology and its usage by the consumer. Product
development and manufacturing was driven by the culture of exclusive
concentration on CD sales rather than identifying new technologies. Internal processes stifled technology development according to Respondent 01 (p.4).

6.2.10.2 Processes

For Christensen (2000, p.189), processes are the “habitual routines or ways of working that have evolved over time which people follow.” The flaw of focusing resources on the current audio format was a deficiency in long-term planning and strategy. Respondent 10 (p.4) and Respondent 05 (p.2) commented that information collection and analysis was not prioritised by record companies and neither were planning or budgeting.

Respondent 03 (p.15), Respondent 05 (p.7) and Respondent 10 (p.3) criticised the lack of planning, analysis and the focus on quarterly financial performance rather than building a sustainable innovative business. There was a lack of investment in the processes of planning, budgeting and market research while the senior management of the recorded music industry instead allocated resources to control established physical audio format distribution chains and to satisfy the needs of the retail customers rather than the ultimate recorded music consumers..

6.2.10.3 Values

Christensen (2000) states that a company’s values are about management choices, criteria selection, the possibilities of ideas and internal policies and reaction. Values therefore determine how to structure business plans and what criteria will be applied to the plan. Christensen (2000, p.189) states that the criteria may terminate projects that fail to meet internal hurdle rates or alternatively “facilitate the success of the very same project.” The values can be adapted to the
opportunity if the management so wishes, or remain inflexible and justify
decision not to engage with new disruptive technology.

Christensen (2000) states that failure to manage innovative change is not
typically a result of bad resource allocation or not modifying processes.
Resources are characteristically vast and processes can be changed to meet the
decisions made. It is most likely to be because of the values, as it is these that
drive decision prioritisation. Christensen states that meeting customers’ demands
and needs is a significant value that drives management decisions. Chapter Five,
Results of Data Analysis, identified that the culture within the record companies
meant that it was the music retailers, rather than the music consumers, who were
a major influence in resource allocation and process focus.

The lack of market information on the size of the digital opportunity and its
projected impact on the profitability of established structures clearly reinforced
values that influenced recorded music companies’ decisions with regard to the
Internet opportunity. Respondent 20 (p.5) outlined that the management’s desire
was to sell CDs as that equalled 98% of the revenues and, as Respondent 19 (p.3)
explained, represented a highly successfully business model. These commercial
values were the ones by which decisions and prioritisations were made.

6.2.10.4 Summary of Capabilities

This discussion on the application of Christensen’s (2000) Resources, Processes
and Values theory to the results shows that the theory provides a framework for
the codified statements collected from the primary data. This framework
structures the strengths and weaknesses represented within an organisation’s
capabilities. Through this framework Christensen (2000, p.186) states that “managers can learn a lot about capabilities by disaggregating their answers into these three categories.” For the recorded music industry the disaggregating of the data into these categories has revealed an industry where the capabilities were focused on the established CD model and the associated revenue model, profits and dominant customers. The prioritisation for all decisions was influenced by the criteria of the established business model and therefore the assets and operating structure within the recorded music companies were all aligned to prolong profitable physical sales, through an established distribution channel to powerful retailers of the CD format to consumers.

The issue for the researcher using RPV theory is that the key element of the theory is the set of organisational values, not the overall capabilities. If the values of the organisation are supportive of identifying the next technology that will be embraced by the market, whether sustaining or disruptive, then the resources and processes will be aligned to this strategy. However, if the values promote a strategy to defend the current market, then the allocation of resources and the processes will reflect this. Therefore, the resources and processes analysis purely reflects the values of the organisation, and the resources and processes are just symptoms of the core values of the business when presented with the challenge or threat of new trading paradigms.

6.2.11 Summary of Discussion on Research Objective One

The discussion of the primary and secondary data shows correlations between the data and the theories on the impact of and reactions to change as discussed in the
Literature Review. This discussion of Research Objective One and the Christensen (2000) theories on Disruptive Innovation, as summarised in the Literature Review, as well as Foster’s (1986) S-curve theory provides a strong theoretically-informed view of the impact of digital technology on the recorded music industry.

The S-curve analysis shows that the shift from sales of CDs to sales of digital downloads represents a period of discontinuity. At the same time, the themes emerging from the interviews with recorded music industry professionals correlate with Christensen’s (2000, p.xxiii) Principles of Disruptive Innovation and his Resources, Processes and Values theory, which in turn reflect the thoughts of other researchers, as identified in the Literature Review.

6.2.11.1 Disruptive Innovation and Digital Technology

Application of Christensen’s (2000) Principles of Disruptive Innovation has highlighted how the lack of technological awareness among the recorded music industry’s senior management, combined with a short-term focus on sales targets to appease investors and the strong influence, even coercion, of retailers with a vested interest in physical sales, created a culture of short-term focus on CD sales to the detriment of new digital market technology and opportunities. This situation was exacerbated by the established management’s inability to understand or identify a viable Internet market compared with the conventional CD market as a result of a lack of awareness of the ultimate consumers’ needs and behaviours. These factors all facilitated an environment where a disruptive
technology could become established within a particular market segment and grow to become an established audio format.

The correlation of the results of the data analysis with Christensen's (2000) Principles of Disruptive Innovation has shown that the digital music file and its distribution via the Internet represented a disruptive innovation, as opposed to a sustaining innovation.

6.2.11.2 RPV Theory and Digital Technology

Application of Christensen's (2000) Resources, Processes and Values theory has disaggregated the UK recorded music industry's capabilities to reveal the factors that influenced its reaction to digital music files and their distribution via the Internet. The industry's management and investors created an internal set of values that led to the staff focusing the available resources and processes on the established and substantial revenue model based on the CD and CD retailers. Therefore, the prioritisation within decision-making, such as resource allocation, was based on values that worked in favour of the CD format, and there was little interest in new technology or new retail structures unless they supported the existing cost structures and income generation. This set the bar very high for new opportunities – they would have had to be sizeable to enhance the already substantial global revenue generated by the CD, whilst not in any way decreasing the revenue derived from the current model or diluting the power of the established stakeholders.

The industry's decision-making values, and therefore dominant logic, sought to ensure a continuation of the record companies' existing focus and limit
investment in any resources or processes that would support an alternative model. These values created an inwardly-focused industry at a time of technological innovation, which was risk averse, lacking technology or consumer insight and working to short-term performance targets that were reinforced through management remuneration that rewarded short-term success rather than long-term growth.

6.3 Discussion of Research Objective Two

Identify the factors that created a retail proposition for digital music files distributed via the Internet.

The first Research Objective of this thesis is to understand why the established recorded music companies failed to engage with and successfully adopt the digital music download and Internet distribution. The second Research Objective is to understand the factors that led to the successful business developed by Apple in the form of iTunes.

The recorded music business, as described in Chapter Two, Industry Background, has now adopted and embraced the digital download and its distribution via the Internet, cementing a new retail and distribution paradigm. Globally, Apple’s iTunes music stores have now retailed over one billion digital download files direct to consumers’ computers (www.apple.com). Apple’s success has been widely acknowledged by the recorded music industry with the combination of the iPod technology and the iTunes music store seen as the revolutionary catalyst that changed the established retail paradigm for music sales and consumer interaction with the music industry. The secondary data analysis of the singles market in the
UK utilising Foster’s (1986) S-curve theory highlighted that in terms of unit sales, the single digital download is now more popular with consumers than the physical single on CD.

The Respondents, when discussing the new digital ecology for recorded music, frequently referred to the success of Apple iTunes, citing it as the instigation of the new legal digital music format and Internet distribution. The Respondents described the relief of the industry when Apple Computers was able to develop a robust business model for consumer retailing of music. However, the actual capabilities that created this important opportunity needed to be analysed and identified within a theoretically-informed structure.

Christensen’s (2000) Resources, Processes and Values theory provides a structure for identifying the available organisational capabilities, which can then be assessed. This section of the Discussion considers the RPV theory elements, their patterns and seeks to provide insight into the industry, as the elements that iTunes used could in practice be used by others in the music industry in the future when confronted with new technologies.

6.3.1 Resources

Issues around the availability of resources were identified by a number of Respondents, especially in terms of the right human resources, which made a significant contribution to the success achieved by Apple. The Respondents’ focus on available resources could be because “resources are the most visible of the factors that contribute to what an organisation can and cannot do” (Christensen, 2000, p.186). The interviewees divided the capability of Apple’s
human resources into two distinct areas: first, the company’s leadership and entrepreneurial drive; and secondly, the vision of its technologists to apply technology to attract new consumers.

Steve Jobs, the CEO of Apple Computers, was singled out as the principal human resource in the creation of iTunes. Steve Jobs’s ability to build the appropriate relationship with the music industry senior management was identified by many Respondents, for example, Respondent 09 (p.7) identified Steve Jobs a key resource that created a commercial advantage for Apple, as did Respondent 12 (p.5), showing how he represented that type of leader that Christensen (2000, p.187) describes as being able to “successfully implement changes that confront them.” Such a dynamic leader, as identified by Christensen, ensured the creation and motivation of a team of human resources that could match the leader’s enthusiasm in using all available resources to develop a groundbreaking technology product for the retailing and enjoyment of digital music.

Respondent 07 (p.5) stated that among the reasons for the success of Apple was its use of the appropriate technology, which was particularly impressive as the major labels had failed to achieve this, according to Respondent 02 (p.6). Therefore Apple had applied the appropriate human resources, both technological and corporate, to resolve issues that the recorded music industry to that point had not. In this way, Apple’s leadership was able to allow the technologists to create a viable commercial proposition, confront the established industry’s reluctance to change and address the industry’s issues. The internal resources of Apple enabled it to articulate clearly a corporate goal to create a product that could meet the
challenges of the market as well as the needs of consumers and the established music industry.

The intervention of Apple in the issue of digital music retail and distribution brought the digital product expertise, consumer understanding and Internet-facing resources of Apple Computers, Inc to the area of music retail. The recorded music industry was relieved that Apple was applying its multi-billion dollar financial resources to attempt to solve a technological issue and willing to underwrite the trial of this new retail paradigm around digital music files. The charisma of Steve Jobs had already convinced the senior management of the recorded music industry that Apple was the organisation with the consumer insight and corporate culture to trial new ideas in the market. This corroborates with Christensen’s (2000, p.187) statement that “without doubt, access to abundant and high quality resources enhances an organisation’s chances of coping with change” and therefore introduce a new, winning solution to a changing market. Respondent 09 (p.7) concurred that the level and depth of financial and technical resources at Steve Jobs’s disposal as CEO made a difference. Apple Computers therefore invested the financial resources necessary to own the essential content resources in order to create a viable marketplace for a new digital music retailing proposition. Apple recognised that having access to the correct music recordings represented essential resources, being “factors that contribute to what an organisation can do” (Christensen, 2000, p.186). This attitude to paying for recorded music content rights also ensured that the capital of the record companies was not engaged in the digital development trials nor were there any expenses for the companies that might lead to any control being
ceded by Apple to a third party. The size of Apple, the resources of Apple and the success of Apple to date in launching new consumer propositions allowed both the music industry and Apple to focus on their own core capabilities rather than needing to understand each other's core assets of music content or technology sales. This division of responsibilities released the recorded music industry from the obligation to create a new market structure that would be excited by small gains, where this excitement is another element of Christensen's (2000) theory on how to succeed with new technology.

Respondent 01 (p.6) summarised the view that in all areas Apple was well resourced and financially secure and therefore a credible a partner for the global recorded music industry; no stakeholder could feel that Apple was an inappropriate choice. With visionary leadership, experienced technologists, software expertise, information technology products, equipment and cash, the resources at the disposal of Apple Computers to be focused at the challenge of launching a trial of a new digital music download product were impressive.

The Apple Computers corporate and consumer brand played a role in the success of iTunes as much as the physical resources. The exciting Apple iPod technology and brand proposition was praised and admired by Respondent 01 (p.6) and Respondent 12 (p.6). The positive perception of the Apple brand created a brand halo for Apple as a company. This brand halo helped in cultivating a desire across the industry to work with Apple, which was a turning point in the recorded music industry’s reaction to the digital music ecology. So the Apple brand acted
as a resource as it helped to make Apple an acceptable partner for the recorded music industry.

This positive brand resource for Apple was also demonstrated by the established companies’ earlier concern about whom to work with in the digital ecology, as some technology brands had negative elements. Microsoft for example was cited by Respondent 12 (p.6) as being perceived as a potential threat and dangerous to deal with.

The positive perception of the Apple brand was a resource benefit and was enhanced by a strong market presence. Apple leveraged its brand through advertising to create consumer demand for a proposition, opening up and exploiting Apple’s technology marketing channels to promote iTunes in particular and digital music in general, rather than resorting to the established recorded music distribution channel. In this way, Apple by-passed the control of the music retailers, creating an alternative process through utilising an alternative distribution chain for the proposition.

The important resources of Apple’s consumer product proposition as well as its communication channels were common themes of the interviewees’ analysis of the resources supporting the iPod and iTunes. Respondent 06 (p.7) articulated how Apple has built the consumer desire for digital music and willingness to pay for digital music files, while Respondent 07 (p.5) cited the reasons for the success of Apple’s iPod and iTunes as the technology, the price point and the marketing.

Steve Jobs, Apple and the content from the major record labels had combined to create a product from the existing resources that consumers demanded because it
was a proposition that was relevant to the way that consumers were enjoying music. None of the Respondents highlighted market research or understanding consumer needs, but they recognised that the iTunes product was so fit for purpose, identifying that matching the commercial proposition to the consumers’ needs is vital. In Steve Jobs there was a social and technological anthropologist, with a deep understanding of how the consumers’ (illegal) actions highlighted the need for change in the recorded music industry involving the development of an appropriate (legal) digital proposition, and who saw how this could be achieved drawing upon the resources available. Steve Jobs was also willing to trial the iTunes proposition and to understand the elements of the proposition under his control as well as the need to provide the right content (music) at the right price through securing the appropriate rights to stimulate the market.

Apple created the dominant digital technology and commercial proposition that the recorded music industry failed to develop. This result can be further understood through Christensen’s (2000, p.187) statement that “we could deal the identical sets of resources to two different organisations, and what they create from those resources is likely to be very different – because the capabilities to transform inputs to goods and services of greater values reside in the processes and values.”

6.3.2 Processes

Christensen (2000) applies an equal weighting to the three elements of Resources, Processes and Values, but the importance of processes is not so clearly identified from the Respondents’ statements as codified and presented in
the Results chapter. The processes within Apple, such as in hiring, training, manufacturing, planning, market research and budgeting, are not as clearly identifiable as Apple's resources and its allocation of those resources.

However, the investment in the product development process of Apple iTunes in turning resources into valuable outputs was emphasised. Jobs was credited with the ability to influence the decision-making processes of the established companies.

The Respondents also identified that the successful Apple product development process had provided the key service propositions in the digital download market and harmonised their functionality with the consumers' requirements. Again, Apple influenced the record industry's decision-making processes and changed entrenched industry positions. Respondent 13 (p.6) summarised how the arrival of iPod redefined the portable music experience in a way that was highly attractive for consumers.

The creation by Apple of this content flexibility for consumers through iTunes was praised by Respondent 09 (p.7) for commercialising the digital music download file in a manner that was a vast improvement on the unsuccessful propositions of the incumbent recorded music industry and other digital download start-up companies. Respondent 06 stated that the success of Apple iTunes was also a result of careful research and consideration of the market and consumer needs, linked to a clear process in decision-making. Respondent 06 (p.7) also highlighted the importance of a transparent pricing model with simple options which, when developed into a product, created greater consumer value.
Apple had effective product development processes, rooted in understanding consumer needs, to add value to an industry and though these processes were clearly established, they had proved difficult to identify for the recorded music professionals. Apple’s product development process represented a strong cultural value to turn resources into desirable consumer products. Apple’s processes supported the creation of an organisation and an industry flexible to change so that there are conscious and unconscious processes that support investment and development decisions, rather than supporting inflexible processes, which are where “most organisations’ most serious disabilities in coping with change reside” (Christensen, 2000, p.188). The issue of change resistance and the desire to retain established structures and processes has been identified by other researchers, such as Hosking and Anderson (1992) and King and Anderson (1995), while Scarborough and Corbett (1992) define the incorporation of new processes as a determinant of the long-term viability of the organisation.

6.3.3 Values

The development and trial by Apple of a viable retail proposition for digital music files, involving the distribution of digital music files via the Internet, required many decisions to be made. The criteria influencing these decisions are tied to the underling values for the company.

Christensen (2000, p.188) explains that “organisational values are the standards by which employees make prioritization decisions.” In the discussion of Research Objective One, the codified themes from the Respondents’ interviews had identified that as the digital music files and Internet distribution encroached into
mainstream consumer markets, the recorded music companies had resolutely concentrated on their CD business model. The recorded music industry's focus on the CD market included cost structures, income generation and the desires of their immediate customers (i.e., the retailers' demands) rather than understanding the consumers' needs from the evolution of the music industry. This management strategy obscured the long-term opportunity of digital music and Internet distribution. Similarly, the limited size of the embryonic digital music market was not enough of an incentive for the established recorded music companies to consider a trial to evaluate whether this was a cost effective and valuable market in which to invest resources in developing, with a view to retailing the core proposition of the industry—music recordings.

The Respondents considered that the recorded music companies' set of criteria for making business decisions, including how to respond to digital music and Internet distribution, meant that this new market was not seen as a priority by the established industry. The interviewees also felt that the criteria that informed Apple's decision to enter the market for selling music were rooted in a different set of priorities and values.

**Apple and the Music Industry**

Some of the Respondents believed that Apple's focus on the iPod and iTunes was shaped by the broader implications of the iPod, as a new piece of hardware that could be sold by Apple, rather than by a desire to create a digital music marketplace to the benefit of the industry and consumers. This cynical view of Apple, as being driven by a more Machiavellian agenda, was informed by the
calculation that income generation for Apple was from selling iPods rather than from selling digital music downloads through iTunes. Respondent 11 (p.11) articulated a view that Apple was not interested in the music industry, that Apple is actually interested only in selling digital hardware. Apple had managed to sell over 50 million iPods, so that revenue stream was naturally exerting the strongest influence on the criteria for making decisions. Respondent 05 (p.5) and Respondent 09 (p.6) both felt that Apple does nothing for music industry, saying that people who buy this device end up buying statistically a handful of songs.

These statements highlights the divide between the values for one industry, which were rooted in selling music on CD, versus the values for a company from another industry, which were concerned with selling technology to a consumer audience that had already embraced the enjoyment of music through digital music files. The Respondents' concern over Apple and its corporate values emphasised that the traditional role and views of the music industry prevail. The need to control distribution and markets was an element of the established recorded music industry's culture for some Respondents, whereas the success of Apple in creating a viable market highlighted that commercialising the core asset, the music, was the source of the long-term value of the industry.

The hardware technologists and record manufacturers understood the digital music market and the opportunity in different ways. This Respondent theme raises the issue of the long-term values of Apple operating in the music market as a company that prioritises hardware over software. Whatever the outcome, this theme highlights that Apple's values were focused on the hardware outcome from
the start and the internal values had directed the company to achieve this. Apple’s organisational values were aligned to design products and propositions for income generation by meeting long-term customer demand. The Respondents therefore had clear opinions as to why Apple had managed to create a proposition that integrated this disruptive technology into the consumer proposition and flourished so successfully. The key issue for the industry is the development of values that support the development of new consumer-focused propositions that will generate long-term value, rather than trying to rely upon non-core assets, such as physical format control, to achieve this.

6.3.4 Characteristics of Disruptive Technologies - cheaper, simpler, more reliable and convenient

The previous sections on Research Objective Two have discussed how Christensen’s (2000) Resources, Processes and Values theory identifies the strengths and weaknesses in companies’ capabilities and how to use and adapt them for success. Christensen (2000) also describes a set of characteristics of disruptive technologies. Organisations that want to respond to disruptive innovation will benefit from recognising these and factoring them into their strategies. This discussion of Research Objective Two now considers these characteristics to shed further light on the factors that enabled Apple’s iTunes to become such a successful retail proposition for digital music files distributed via the Internet.

Christensen (2000, p.221) stated that a successful disruptive product or process occurs when the new technology proposition to the consumer is “typically
cheaper, simpler, and more reliable and convenient than established
technologies.” Christensen (2000, p.245) advises using these qualities as guiding
principles for developing a company’s product or process in response to a
disruptive innovation or to incorporate the disruptive technology into a viable
product. On the basis of successful incorporation of these qualities into a
consumer proposition, the development of disruptive products or processes will
be successful or the incumbent management will help ensure that their
established product or process, and hence industry, will survive the disruptive
innovation. It is therefore instructive to investigate whether incorporation of these
characteristics is identifiable within the themes arising from the Respondent
interviews in describing the success of Apple and other digital retailers.

The ability of the consumer to download simply through the Internet one track
rather than being frequently obliged to buy a whole album as in the physical
marketplace, made the process of purchasing music considerably cheaper in the
digital marketplace. This attractive “buy only the music that you want” consumer
proposition was key to developing the digital market. Nevertheless, the
established recorded music companies were very resistant to offering this
proposition and this had led to the incumbents refusing to adopt this as a digital
music download proposition initially, even though it was clearly consumers’
pREFERRED option, as demonstrated by the success of the Napster software.
However, the recorded music industry has now accepted that the convenience of
the single digital download has changed the recorded music industry business by
offering the music formats that meet consumers’ desires. This is because
consumers want the single track digital download as a proposition that is simpler, cheaper and more convenient.

The new consumer proposition of the single digital download was in large part possible because of the intervention of Apple Computers and its CEO Steve Jobs, convincing the music industry to change the product and format of songs. Respondent 11 (p.8) and Respondent 09 (p.7) observed that Apple was granted distribution rights that had not been granted to anyone else at all, enabling the 99 cent price point. Respondent 06 (p.7) highlighted iTunes's pricing model, which was both radically different and very simple compared with the established CD model. These changes in decision-making highlight Apple's successful incorporation of these characteristics to make possible a simpler, cheaper and more convenient proposition for the consumer when purchasing recorded music.

The consumer's desire for convenient digital music distribution can be demonstrated by the success of digital music downloads in the UK singles market in 2005 and also in the highly important Christmas season 2004, when sales of digital singles first exceeded sales of physical singles. "The download sales beat the previous weekly record by more than 20%. The round-the-clock access to download sites is thought to have made online purchasing more convenient and attractive" (bbc.co.uk, 7 January, 2005). This achievement in the level of sales led to the CD's market inflection point that previously all physical formats have experienced. The S-curve analysis identified that formats become accepted when consumers' purchasing patterns adapt to the new technology. For example, when
the audio cassette overtook the vinyl album as the most popular audio format and
when the CD overtook audio cassette as the most popular audio format.

The reliability of the digital music proposition was not discussed explicitly by the
Respondents in the interviews. However, the digital music download proposition
offered by Apple iTunes did resonate with the overall Apple Computers
proposition on technology and consumer interface, according to Respondent 06
(p.7) and Respondent 07 (p.5), who underlined the point that Apple had
developed a reliable product, in terms of delivery and transaction, that consumers
wanted.

6.3.5 Characteristics of Disruptive Technologies – disruptive products are
first successful in emerging markets

Christensen (2000, p.248) notes that disruptive products or processes often
require a disruptive distribution channel to reach the consumer, such as digital
music files being distributed via the Internet. "It has almost always been the case
that disruptive products redefine the dominant distribution channels, because
dealers' economics – their models for how to make money – are powerfully
shaped by the mainstream value network, just as the manufacturers' are ... The
reason destructive technologies and new distribution channels frequently go
hand-in-hand is, in fact, an economic one. Retailers and distributors tend to have
very clear formulas for making money ... Just as disruptive technologies don’t fit
the models of established firms for improving profits, they often don’t fit the
models of their distributors, either."
The establishment of the digital music download audio format and the ensuing development of an alternative retail and distribution structure via the Internet, bringing with it new retailers and distributors, further emphasises the importance of alternative distribution as an element in Christensen’s (2000) disruptive technology theory framework.

The Respondents understood the symmetry of disruptive technology and disruptive distribution; Respondent 15 (p.5) identified the decline of the traditional retailers and the opportunities presented by the new digital retailers. Respondent 01 (p.9) and Respondent 05 (p.4) identified that Apple’s success was a huge relief for the industry as the digital business model was supported by the public and Apple was easily able to manage the consumer demand. The development of digital distribution through the Internet also allowed the consumer proposition to be developed and delivered without the influence of the established retailers, who had previously been hostile to digital music files.

Finally, the success of the new retail paradigm also required the development of a new business structure “because rational resource allocation processes in established companies consistently deny disruptive technologies the resources they need to survive” (Christensen, 2000, p.249). Therefore Apple’s recent arrival and independent status in the recorded music industry provided two distinct advantages. First, there was no desire to fund the development of the new digital ecology by the major labels as the market size was minimal compared with the physical format business, whereas Apple was willing to invest in the service because it was a new business for Apple with no preconceived ideas on
sales of music or degrees of success. The second advantage was Apple’s knowledge and success in the technology and retailer ecology. Apple as a computer firm was very comfortable in the digital sector and had embraced Internet retailing for both hardware and software so it had the organisational resources, processes and values to succeed in building an appropriate consumer proposition for digital music files. Respondent 02 (p.10) supported the opinion that at the time of the arrival of the Internet and digital music downloads, the senior management of the recorded music industry were focusing on physical sales. As a result of this management myopia, a computer and technology company with no obvious music industry knowledge, products or contacts was able to create a workable music consumer proposition turning the weakness of the new and untried digital music proposition into a fantastic consumer proposition at the time when the recorded music companies had no idea how to achieve a digital marketplace.

6.3.6 Summary of Discussion on Research Objective Two

Research Objective Two is to identify the factors that created the technological and market conditions that cultivated a successful retail proposition for digital music files distributed via the Internet. Using data from the Results chapter, these factors were identified through analysis incorporating the various Christensen (2000) theories including his Resources, Processes and Values theory, Principles for managing disruptive innovation and the Consistent Characteristics of disruptive technologies.
Through the discussion on this Research Objective it is clear that there is correlation between the results of the data analysis and the theories of Christensen (2000). This correlation emphasises that a disruptive technology proposition can, within the appropriate commercial structure and supportive organisational values, overcome the incumbent retail structure to succeed and challenge the established sector. (Alternatively, if the incumbent companies are sufficiently market-aware, the disruptive technology can be absorbed by the established manufacturers and value chain.) This organisational culture can then exploit the available resources and processes to maximise the opportunities.

Apple was successful in adopting and trialling a disruptive technology to challenge the established recorded music market and create a successful Internet distribution business for recorded music files. At the same time, Apple’s management used the existing Apple brand and retail distribution network to launch the Apple iPod. Apple’s strategy to optimise the current resources and processes of Apple Computers, Inc for the new iPod product ensured that from launch there was an established distribution chain and retail platform for this new consumer digital technology hardware product. This leveraging of core resources and capabilities provided the Apple brand with a new hardware proposition as well as exploiting the recorded music content proposition, both representing core assets that appealed to the loyal Apple consumer base to embrace and purchase.

Apple modified established markets by trialling a proposition that leveraged the consistent characteristics of disruptive technology. Apple’s corporate processes and values created a new consumer proposition for digital music retail, with
digital music files playing on small devices that were highly portable and made playing digital music very easy to do. The iTunes retail platform was more convenient for music consumers than physical retailers because of round-the-clock accessibility via the Internet and the ability to buy an individual track rather than have to buy an entire album. The single track option made digital music cheaper than both traditional physical formats and the previous legitimate digital products at that time. Apple's reputation for reliability in hardware and software enabled the iPod and iTunes to become highly credible in this developing market.

Apple's investment in a digital recording retail site, iTunes, was at a time when the market was insignificant and the mainstream music retail or manufacturers did not perceive the market as a significant opportunity. This allowed Apple to define and dominate the retailing of digital music files.

Apple used the strengths of the digital value proposition, which was considered to have significant weaknesses by the incumbent manufacturers and retailers. They had identified that the digital platform required none of the established processes around physical formats, which they perceived as a weakness because that was what they had used to control the market for decades. Apple identified through its established computer business the strength of virtual distribution in the convenience it would offer consumers, who would embrace the new digital proposition.

Apple approached the digital music market as an emerging market and hence had low revenue expectations. The established music retailers could not accept the lower margins and profits but for Apple these were the expected outcomes and
therefore appropriate in the early stages from which to grow the business.

Apple's digital music proposition was disruptive to the established model and Apple exploited all of the characteristics of disruptive technologies identified by Christensen to grow a product that was considered niche by the established industry into a strong substantial mainstream market proposition.

6.4 Discussion of Research Objective Three

*Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.*

The discussion of the first two Research Objectives considered the research results and analysis within the context of the theories of Christensen (2000) to identify correlations. This revealed the assets and capabilities of the UK record companies that influenced the industry's reaction to the digital download and then the assets and capabilities that enabled Apple to create a successful proposition for the retail and distribution of digital music files via the Internet.

The final Research Objective is to develop a strategic framework that recorded music companies should operate within to aid success when again confronted with disruptive innovation in future as recorded music formats and retail evolve. In the Results chapter, it was described how the Respondents had identified a number of operational transformations occurring within record companies that are creating new initiatives and a change in resource management in response to the new digital ecology and ongoing technological innovation. The discussion of this Research Objective will compare those new activities with the theories of Christensen (2000), identifying the activities that are robust and will assist the
recorded music industry in responding to future technological developments that will impact the current market structure. This discussion will also seek to identify remaining deficiencies, i.e., further initiatives that the companies should adopt in order to position themselves well for when the next technological innovation becomes adopted by the market. Finally, this discussion will propose and then test a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.

The Results chapter section on the music industry’s recent evolution to digital retailing, through operations like Apple iTunes, related the majority view of the Respondents that the music industry had changed. Respondent 05 stated that “there has been a cultural change” to embrace the digital era (p.6). Meanwhile, Respondent 18 described the transformed recorded music companies as having achieved “a step change difference” (p.5) from the traditional recorded music companies’ operations and focus.

This discussion will use as its framework Christensen’s (2000) Resources, Processes and Values (RPV) theory. This theory is highly suited to this Research Objective because RPV theory was designed by Christensen (2000, p.185) to assist managers of industries to “think rigorously whether their organisations have the capabilities to successfully execute jobs that may be given to them.” In formulating RPV theory, Christensen (2000, p.186) states that he was bringing greater precision to the issue of managing disruptive change and therefore “presenting a framework to help managers understand when they are confronted with a necessary change.” The framework disaggregates the organisation’s
capabilities into three categories and identifies the organisational capabilities that need to be used or enhanced to meet the opportunities and challenges of disruptive technological change.

6.4.1 Resources

The first capability considered is resources (or assets), which is the most instinctive capability to consider when reviewing a company's strategy in responding to an innovative technology. The Respondents' statements emphasised that in the new digital-era record companies, there had been a modification in recruiting policy. Compared with the CD era record company, there had been a diversification of the organisations' overall professional knowledge and skill set. Respondent 05 (p.7) and Respondent 07 (p.7) observed an increase in the number of employees with a broad commercial approach being employed by the industry to widen commercial strategy and challenge the accepted thinking. Therefore the record companies' human resources policies have changed to encompass recruiting employees with specific digital technology and digital product marketing knowledge and also a wider commercial knowledge and willingness to experiment in new markets to meet consumer needs.

This new internal wisdom should favourably influence all the other resources factors that are identified by Christensen (2000). Digital technology knowledge and resources are increasing as record companies create new digital divisions, as described by Respondent 05 (p.8). New digital products are developing new digital opportunities that are taking record companies away from physical
formats as companies move towards licensing and IP asset marketing, as observed by Respondent 06 (p.9) and Respondent 05 (p.10). The new employees, skill sets and products are changing the information available to the recorded music companies and therefore changing the available resources and the decisions about allocation of those resources.

6.4.2 Processes

Respondent 05 (p.8) observed that record companies are trialling and embracing new business models, requiring new skillsets and knowledge such as better consumer information to create new business models for the industry. Adequate financial resources are not an issue for the companies, especially after the success of the CD decade, but the issue was around decisions (i.e., processes) concerning allocating those resources to meet consumer needs. The new employees are applying new management techniques, including market research, to the financial resource allocation processes.

The change in investment criteria by the record companies was most marked in the area of music distribution. This change in emphasis is part of the new application of resources that Respondent 13 (p.10) defined as creating new revenue streams through looking for different ways of generating income. This new emphasis on generating income through any product highlights a shift of market focus in order to adapt internal processes so that the companies’ current or new resources can be transformed into relevant products for the market. Therefore the recorded music companies have needed to adapt their processes for
“interaction, coordination, communication, and decision-making through which they accomplish these transformations” (Christensen, 2000, p.187).

In the new recorded music industry, it is clear that the processes surrounding employment have changed to infuse the organisations with new consumer knowledge and relevant product development ability. However the internal knowledge from the incumbent employees also has to be enhanced. Therefore internal training also has to improve, including restructuring company development processes as a matter of urgency for all employees to be educated in the operational changes needed for the new retail ecology. This view was shared by Respondent 07 (p.8), Respondent 18 (p.6) and Respondent 19 (p.6).

These are pointers for improvements in the skills and knowledge of the established workforce needed in order to embrace the new technological resources and skills and facilitate strategic investment in new product development. The new digital format has become part of the organisation’s knowledge, the planning and budgeting process, and the new opportunities and revenue philosophies have been integrated into the new digital era record companies. Respondent 13 (p.8) stated the new industry process was to monetise the various opportunities created off the back of the original song content and therefore the internal planning cycles had to incorporate that process.

However, the process that has changed fundamentally in the new digital record companies is the investment in and utilisation of the knowledge gained from consumer market research. To understand the customer in the CD industry was to understand the CD retailer. To compete in the digital age, the process of market
research has had to move to understanding the music consumer rather than retailer. The digital recorded music industry needed to understand how these digital age consumers enjoy and acquire music recordings rather than understand the retailer as the next link in the value chain.

Respondent 05 (p.9) and Respondent 11 (p.8) observed that the recorded music industry was now monitoring customer needs in order to create the right products so as to ensure the maximum return from the allocation of the industry’s resources. This change in internal processes, embracing market research, was also underlined by Respondent 14 (p.12), who confirmed that this change in management and investment processes had happened only in the last few years.

6.4.3 Values

Although the resources and processes of the record industry are important, it is changes to the values of the established companies that will have the greatest influence. The new values of the digital era record companies facing future technological change will influence the processes and deployment of resources within those companies. This is because the values of an organisation are the “standards by which employees make prioritization decisions” (Christensen, 2000, p.189), which in turn control the future of the company.

The Industry Background and the Results chapter highlighted how the industry values during the CD era were focused on the continued sales of CD units rather than on the core asset of the music. However, the Results chapter described how the internal values of the recorded music companies now embrace a larger number of commercial perspectives arising from the expanding opportunities of
the digital era and trialling these to identify the long-term commercial opportunities.

The revenue from CDs is still considerably larger than alternative digital download revenue streams. However, according to Respondent 07 (p.10) and Respondent 13 (p.11), the industry has learnt to pursue all income streams, from both physical and digital products. This is in sympathy with the view of Respondent 13 (p.8) that the recorded music industry needs to "monetise and digitise" to develop a long-term relationship with consumers and meet their music needs on the varying technological platform of their choice on their timetable. The recorded music industry has learnt to trial small digital opportunities with small revenue streams so as to be equipped to maximise opportunities when the small digital revenue stream product becomes a significant audio format.

However, this strategy of broadening of product lines, and therefore income streams, needs to be integrated into company product development activities and investment strategies. The music industry's change from the CD era to the digital content era required an extraordinary change in organisational values for the industry in starting to apply a high degree of significance to consumer market research. Consumer market research now influences the processes and resource deployment of record companies and that is because of the new importance attributed to the consumer needs and because the industry is more aware of the consequences of not doing so, having learnt from the loss of opportunities at the end of the CD era, so well exploited by Apple. Therefore, the companies' values
recognised that improved consumer market research was needed, as stated by, Respondent 11 (p.9) and Respondent 07 (p.8).

The need to comprehend the size of the commercial opportunity is driven by the size of the consumer interest. Respondent 12 was critical of the CD era management’s comprehension of the opportunities offered by the digital era. Respondent 12 observed that Steve Jobs and Apple had so clearly made money out of the Internet because the incumbent record companies’ managements were too anxious to understand the consumer and adapt the recorded music proposition.

The digital era recorded music industry’s appreciation of and engagement with consumer market research was evident in the new values and commercial models for the industry being referenced by Respondent 06 (p.9), while Respondent 04 (p.6) identified the opportunity for record companies to become good content houses.

If the Respondents’ hypotheses about the new recorded music content companies are correct then these new organisations will need new values. These values will influence decision-making to increase the chances of success of the new music content companies. The new organisational values will need to balance the demands of the current consumer and retail customers against the costs and profitability of any new business model. The industry values will have to assist in predicting the size any new market may achieve. The incumbent companies’ new values will allow all this information to be considered and a plan to be drawn up and executed to succeed in this new market segment. The organisational values
will ensure that the content era management, and therefore the company strategy, embraces the content era opportunities rather than ignoring any technological innovation in the desire to perpetuate the established business model. This unsuccessful strategy and value matrix can be observed in the CD era management's reaction to the opportunity of the digital era, as discussed above under Research Objective One.

6.4.4 Developing the Framework

The discussion of Research Objectives One and Two, using the theories of Christensen for analysis, form the basis for the development of a strategic framework to assist the UK recorded music industry in managing future technology innovation, which is the goal of Research Objective Three.

Research Objective One provides examples of the how organisations should not react to the impact of disruptive innovation while Research Objective Two provides a set of values and capabilities that a company should utilise when developing or incorporating a disruptive technology proposition for an evolving marketplace.

Research Objectives One and Two, though considering opposite outcomes, are created from the application of Christensen's theories to the primary data collected in the semi-structured interviews. The discussion of the results identified the success factors that are required to incorporate and commercialise innovative technology. The organisation that cannot recognise or adapt to innovative technology can be disrupted as the innovative technology proposition becomes stronger and more influential within the marketplace. Therefore,
Research Objective Three requires the development of a strategic framework that is consistent with the discussion of the other Research Objectives.

The changes the recorded music industry made in order to be able to manage the impact of digital music files and their distribution via the Internet have been discussed within the framework of Christensen (2000). This is appropriate because Christensen (2000) provides approaches for managing technological change. Christensen (2000) begins his consideration with a review of the available resources and processes. However, the discussion of Research Objectives One and Three identified that it is the organisation’s values (which influence its decision-making and resource prioritisation) that have the biggest impact on the identification and management of future technological innovations in the case of the recorded music industry. Therefore to develop a framework for the industry, this discussion needs to “reverse” the elements of Christensen’s (2000) RPV theory, and start with addressing the values, from which the necessary changes to the processes and resources will flow. The role of resources and processes within any industry are to meet the objectives of the management. The objectives of the management reflect the values of the management; in other words, their approach to business and perception of their role in the long-term success of the business. Therefore, it is the organisational values that are the key to managing an industry when faced with disruptive innovation (Figure 6.1). The correct values will influence the correct resource allocation and processes to develop the company, whereas the wrong values will leave the company stagnant and restrict any development plans.
A successful strategic framework therefore needs to promote organisational values that are receptive to new opportunities and amicable to change. If these new values are clearly communicated they will underpin the criteria by which prioritisation and decisions are made and this strategy will influence the internal processes, including resource allocation, that will then marshal the physical and intellectual assets of the organisation to meet the challenges and opportunities posed by future disruptive innovation.

It has been identified that Christensen’s (2000) RPV theory is a diagnostic tool for an industry under attack from disruptive innovation. However, the UK recorded music industry needs a values framework to identify the key organisational values that will help ensure that the industry can identify and
manage the next wave of innovative technology to alter the retail paradigm. Christensen's (2000) theories are valuable in identifying disruptive innovation and disaggregating the capabilities of organisation into Resources, Processes and Values. However, the theories of Christensen (2000) do not provide a strategic framework of values for organisations to embrace to enable them to identify and embrace changing retail paradigms. The values framework developed and presented here is designed to help companies attain a flexible creative state ready to embrace change, as recommended by Kotter and Schlesinger (1979).

The three components of this strategic values framework for identifying and managing innovative technologies are (Figure 6.2):

- Understand the real consumer
- Focus on the core assets and capabilities
- Research and trial new consumer propositions
Components of the Strategic Framework

Understand the real consumer

Research and trial new consumer propositions

Focus on the core assets and capabilities

Figure 6.2  Components of the Strategic Framework

These components of the framework are described in detail below, with supporting strategy and tactics.

Understand the Real Consumer

This requires the manufacturer and retailers to understand what consumers value (and don’t value) from the organisation’s proposition as well as exactly what they are doing (or not doing) with the core products at the centre of the consumer proposition, i.e., how consumers want to purchase and enjoy recorded music. Failure to understand the consumer’s motivations leads to a false sense of their needs and interaction with music.

This component of the strategic framework recognises the importance of Christensen’s first principle of disruptive innovation, which is that it is the needs
of the ultimate consumer that matters most, not those of the immediate customers or the investors. Companies that focus on their immediate customers’ needs will not identify the needs of their ultimate product or process consumers. The need originates with the ultimate consumer and all other customers in the retail chain are merely conduits to markets. To understand the consumer is to understand the use of the product by the consumer.

This strategic value is founded on the first characteristic of disruptive technologies, which is that they introduce a new consumer value proposition (typically smaller, cheaper, more convenient and more reliable). Only by truly understanding what the consumer really needs and values, will record company management be able to recognise the potential advantages of a new technology offering an altered (potentially enhanced) consumer proposition. Therefore, the consumer, and not some other member of the value chain between the manufacturer and the consumer, must be allowed to influence the industry.

Strategically, with the consumer need identified, the ability to incorporate consumer knowledge throughout the decision-making process is vital to developing the correct proposition. Therefore, the organisation needs the appropriate human resources, including market research experts, with the knowledge and skill to analyse consumer needs and market research data, and develop these insights into viable propositions.

Tactically, the recorded music industry must use all available resources, technologies and methodologies to understand its consumers’ needs and usage of recorded music. For example, record companies should be monitoring online chat
rooms and weblogs, while also investing in traditional research through focus groups, consumer panels and lifestyle trends analysis to understand not only what the consumer enjoys musically but also how the music recordings are being incorporated into consumers’ lives and consumers’ preferences for enjoying music through innovative technology, from computers to mobile phones. This research requires the record company management to gather this information not only from the UK but also to understand the trends in overseas markets, especially North America and the Far East where the application and absorption of new consumer technology is generally faster than in the UK, because these consumers will provide indicators for future consumer needs in the UK.

**Focus on the Core Assets and Capabilities of the Organisation**

This requires the organisation to recognise precisely what forms the basis of the business and not to allow the current established and successful marketplace or retail paradigm to influence decision prioritisation. This element requires the company and the management to look to develop the best possible products from the core organisational assets and capabilities and to be willing to consider new propositions and even new business models that utilise the same core asset or capability but discard other assets and capabilities that the organisation has, most likely related to a mature retail proposition. This may require the organisation to change distribution and retail channels, establish new formats and change internal and external processes.

This element of the strategic framework recognises that disruptive products generally operate with a different financial model. Recorded music companies
need to be clear on what their core assets are and be prepared to change their business model and supporting capabilities (whether physical or intellectual) in response to an innovation that is relevant to that core competency (i.e., selling recorded music). Therefore they must recognise that current formats are temporary, just like wax cylinders, vinyl LPs and audio cassettes, even if they have been on sale for decades, as are the supporting distribution structures, and that both formats and structures will evolve but the basic core capability of the organisation should remain the focus, i.e., how to sell music recordings successfully to consumers in the manner they desire.

Strategically, the changes to resources, processes and values required are to adopt organisational values that focus on what the core assets and capabilities are, and are not distracted by supporting assets and capabilities, which could become the organisation’s disabilities if not adapted or discarded, as appropriate for the company. The company needs to create an environment where innovative use of recorded music content on any and all technology platforms is supported and judged successful according to an agreed set of criteria that are informed by an understanding of Foster’s (1986) S-curves. Innovative products would be monitored through infancy and growth, past the point of inflection and on into maturity.

Tactically, internal communication messages can be used to shape a culture that understands which of the company’s assets and capabilities are the core ones and which are supporting assets and capabilities for the maturing business model.
Research and Trial New Consumer Propositions

This element of the framework requires the record companies to use the information learnt from understanding consumer needs in order to research and trial new recorded music retail propositions. The practice of researching and conducting tests on new consumer propositions requires the management to focus on the consumer needs and core product desires, which encourages experimentation to understand embryonic retail markets. Retail tests should be conducted in a way that is flexible and dynamic, recognising failure as well as success and developing operations that are proving to be commercially viable.

This element of the strategic framework recognises how established companies fail to embrace innovative technology because small markets do not solve the growth needs of large companies and because markets that don’t exist cannot be analysed. However, real data can be collected from real trials and can be scaled to diagnose innovative technology before the market is disrupted.

It also reflects that the attributes that make innovative propositions worthless in the mainstream markets typically become their strongest points in emerging markets, and that new consumer propositions are initially insignificant in comparison to mainstream markets. The record company management teams must set aside their historical lack of interest in new technologies and new markets, and instead research and trial them.

Strategically, the company needs to foster a culture of investigating every new content opportunity and innovative technology platform and so ensure a broader operational strategy based on identifying the varying consumer demands from
music content and therefore the ability to shape cost structures and income to the customer-driven marketplace. This will require developing organisational values that encourage experimentation in new markets (as opposed to rejection of commercial trials on the grounds of limited opportunity size or an untested cost model), encouraging a long-term rather than short-term mindset. This will also require modifying brand and shareholder expectations whilst updating the organisational processes for resource allocation, planning and budgeting. Success may need to be analysed over different timeframes so that the organisation can operate on long-term rather than short-term business cycles.

Tactically, the organisations may need to establish discrete business units within the organisation, where this experimental approach can be nurtured away from the revenue expectations that will continue to drive parts of the organisation concerned with mainstream products and markets.

**Summary of the Value Components of the Strategic Framework**

The three elements of this strategic framework must be considered when a developed business is reacting to the possible impact of innovative technology or attempting to assess the impact of a disruptive technology that has been identified. Understanding what consumers think, how the innovative technology changes the commercial pricing and distribution model, and how this impacts upon the core proposition will provide the company with a plan of action to evolve an appropriate proposition that will meet the requirements of the business and consumer and in that process complete the next evolutionary cycle of the industry.
6.4.5 Testing the Strategic Framework

This strategic framework can be tested against previous responses by organisations in the recorded music industry in responding to the impact of digital music files distributed via the Internet. Furthermore, the framework can be used when considering a possible future evolution of the recorded music industry. It can also be applied to another industry that was disrupted by innovation to see if this strategic framework would have assisted incumbents in that industry in adapting to the new commercial ecology created by the impact of innovative consumer propositions.

Internet Underground Music Archive (IUMA)

The first application of the strategic framework is to the Internet Underground Music Archive (IUMA), which was a very early Internet distribution system for digital music. Newby (1994, p.1) described the IUMA as a "kind of digital music club where bands played for free." This Internet distribution centre for digital music failed to become a successful application of the disruptive digital technology. IUMA was an organisation that understood the technology for music on the Internet and had researched and trialled new technological propositions for distributing music to consumers via the Internet. Therefore, IUMA did understand the consumer's technological needs and it did draw upon its core assets and capabilities to trial a proposition to meet those needs.

However, the IUMA failed to become a success owing to a lack of mainstream recorded music. So although it had understood the consumer's technological needs, it did not understand their content needs (Figure 6.3).
Internet Underground Music Archive (IUMA)

**Understand the real consumer**

**Research and trial new consumer propositions**

**Focus on the core assets and capabilities**

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**Figure 6.3 The Strategic Framework Applied to the IUMA**

**PressPlay and MusicNet**

The established record companies did identify that the Internet was a disruptive technology and Dizikes (2001) reported how the (then five, now four) major labels were, as two consortia, investing in developing digital music services called PressPlay and MusicNet. These services demonstrated that the major record companies were prepared to research and trial new consumer propositions, drawing on their core assets and capabilities of music recording with a view to allowing mainstream music retail to be commercialised over the Internet. Therefore, they did address the second and third components of the strategic framework.
The failure of the established record companies related to the first component of the strategic framework – understanding the real consumer (Figure 6.4). Hellweg (2003) reported that PressPlay and MusicNet failed because “the usage rules were far too restrictive” and the cost of a buying a recording, which was pegged at a price high enough not to undercut the companies’ physical music recordings, was unattractive to consumers (Coleman, 2003).

The consumer propositions of PressPlay and MusicNet were unduly influenced by the incumbent industry’s physical format proposition, most critically in the area of pricing. The unit cost of recordings reflected that of the physical market rather than a new non-physical market. In addition, there was no consideration by PressPlay or MusicNet of the consumer need for enhanced flexibility, duplication and portability of the digital file purchased, all of which were technically possible. So the digital recording could not match the product flexibility of the established CD. The PressPlay and MusicNet propositions sustained the current retail paradigm cost structures but failed to reflect the evolving digital music proposition and the new consumer’s perception of the value and flexibility of music in digital files.

These experimental digital retail offerings did represent a possibility to research digital opportunities, with the core offering of mainstream recorded music rightly placed at the centre of the new propositions. But the failure to create a consumer-centric proposition that resonated with the digital era consumer needs resulted in consumer apathy if not resentment of the new PressPlay and MusicNet retail opportunities. The digital proposition was a record manufacturers’ ideal digital
retail paradigm rather than a music consumer’s ideal proposition, which would have increased consumer interest and participation.

PressPlay and MusicNet

Figure 6.4 The Strategic Framework Applied to PressPlay and MusicNet

Apple iTunes

Steve Jobs’s decision to become a digital music retailer led to the development of iTunes, a retail proposition that addressed all three components of the strategic framework (Figure 6.5) to succeed in the application of innovative technology:

- Understand the real consumer
- Focus on the core assets and capabilities of the proposition
- Research and trial new consumer propositions
The Apple iTunes consumer proposition resonated with consumer needs. The Respondents, e.g., Respondent 06 (p.7) and Respondent 07 (p.5), identified Apple’s fantastic consumer proposition, great marketing and simple pricing. Respondent 09 (p.7) praised how Apple was able to get the service off the ground in a way that was successful with consumers and labels. Apple recognised that mainstream music recordings were a core consumer need that had to be acquired to make the retail operation viable. So Apple sought a content rights deal with the established record companies that represented the artists that consumers most wanted to hear, reflecting Apple’s ability to understand the true consumer needs.

Apple Computers also had the experience of developing new products and services via the Internet emphasising again that Apple had a culture that embraced researching and trialling new consumer propositions but also understood that the core values of Apple Computers was to focus on its core assets and capabilities in technology product development and retailing.

Therefore, Apple’s internal culture embraced risk and trial, recognition of its core asset of technology know-how and finally created a product for the real consumer that resonated in terms of content, price and flexibility.
Figure 6.5 The Strategic Framework Applied to Apple iTunes

EasyJet

The strategic framework was tested further through application to another industry that has been changed by disruptive innovation. EasyJet’s arrival in the UK airline market signalled a period of disruption that challenged the existing airlines’ services. EasyJet’s introduction followed a model made viable by SouthWest airlines in the United States. However, the elements of the strategic framework remain valid.

Understanding the consumer would lead to the identification of the key points of the US model valued by consumers: very cheap flights when booked in advance, made possible by cheaper operations in airports and the replacement of the complimentary in-flight service with a paid-for service.
EasyJet trialled the proposition on one route, from London Luton to Glasgow (www.easyjet.com), to test the resources and processes needed and to confirm that the flight itself was the core asset valued by consumers. A complimentary in-flight service was valued but not as much as the ticket price discount made possible by removing it. So the price could be lowered to a level that still delivered the true need of the consumer (the flight) whilst all additional parts of the service were superfluous to the consumer. The ability of EasyJet’s management to promote this core consumer proposition was key in allowing the airline to grow its number of passengers and destinations covered. As such, EasyJet’s approach followed all three elements of the strategic framework (Figure 6.6) and was highly successful.

![EasyJet Diagram](image)

**Figure 6.6** The Strategic Framework Applied to EasyJet
Summary of Framework Testing

This testing of the strategic framework for managing disruptive innovations against three different ventures in response to the innovation of the digital music file and Internet distribution, plus a fourth example from a different industry, shows the necessity of drawing upon all three elements of the strategic framework to find a proposition that will resonate with consumers. Adapting company values, processes and resources accordingly should ensure that a company can respond to innovative technology strategically and tactically to generate a commercial success.

6.4.6 Applying the Framework in Forecasting the Future

To again test the validity of the framework, the model can be applied to the question of how the music industry should respond to a possible future technological disruption. This example reflects a current discussion in the industry regarding the desire of consumers to have the ability to interact with the recording rather than be just a passive consumer. The digital music file has the technical flexibility to provide consumers with access to the various constituent components of the recording. The consumer could then remix the recording, introducing other instruments or voices, to participate in the creative process alongside their favoured artist to develop a recording that the consumer will enjoy more as being uniquely theirs. However, within the industry there is a reluctance to allow this interference with copyrighted material.

The application of the framework requires the following issues to be considered:
What does the real consumer want? What do they want to be able to do, with what degree of flexibility, and how much are they prepared to pay for it?

Does this new product present an opportunity to make money from the core asset that the recording companies own? Does it require any assets or capabilities to be acquired? Are the reasons against pursuing the new product rooted in protecting a core asset or a non-core asset?

How can the product be trialled to ensure the successful development of a mainstream product should the market start to mature?

The answers to the questions suggest that the record companies should not ignore or try to stop the development, perhaps arguing that recordings are inflexible performances. Instead, the record companies should be holding internal discussions to consider embracing the opportunity and adapting their internal processes and resources to achieve this.

This hypothetical new “consumer mix” product is a similar challenge to the industry as the digital music file distributed via the Internet was. It is a new way that consumers may want to enjoy music recordings, the record companies’ core asset. How the industry reacts to the opportunity will reveal how much the industry has evolved.

6.4.7 Summary of Discussion on Research Objective Three

In discussing the development of a strategic framework for the recorded music industry for managing technological innovation, the application of Christensen’s
(2000) RPV theory has provided a structure for disaggregating the collective factors that constructed the current management framework for managing innovative technology.

The application of the data analysis presented in the Results chapter to the RPV theory identified the critical changes required in the recorded music companies’ capabilities that had assisted the companies in adapting eventually from the physical CD era to the digital music era. The identification by some of the Respondents of the organisational capabilities required by recorded music companies for participating fully in the music content era assisted in the discussion of a strategic framework, which will be constructed and disclosed in the Conclusions chapter.

The discussion in this section also identified that, although Christensen’s RPV theory facilitates examining an organisation for evidence of failure to adapt to a new market proposition, it is the values of an organisation that have the largest influence on the organisation’s reaction to disruptive innovation. Therefore, the organisation must adapt and articulate its values within the context of the market rather than retain counterproductive values from mature markets, as the values that promote success in mature markets are not always appropriate to the new challenges of an evolving marketplace. Furthermore, there is no valid reason to adapt organisational values unless the market is changing or forecast to change, as this would destabilise the established organisation and the successful commercial propositions.
6.5 Summary

The discussion of the Research Objectives has shown that the data gained through the research programme have numerous correlations with the theories summarised in the Literature Review. The process of data collection and analysis has allowed the stated Research Objectives to be addressed. The resulting conclusions can now be presented as robust solutions that provide the recorded music industry with an understanding of the evolution of the digital age, how new propositions become dominant and how a strategic framework can be developed to help the recorded music industry identify and manage future innovative technology.

The discussion of the data analysis demonstrated that the industry did not have the necessary capabilities or organisational values to take advantage of the opportunities presented by the digital marketplace whereas Apple's values promoted and incorporated the capabilities to create a mainstream market for the retail of digital downloads. In both cases, the factors that had the greatest influence on success or failure were the organisational values, as it was these values that drove the processes and resource deployment within the companies concerned.

The final Research Objective was designed to enable a significant contribution to the enhancement of professional practice in the recorded music industry through the development of a strategic framework that will ensure that the industry has the capabilities to identify and manage the future opportunities created through innovative technology. In this Discussion chapter, the analysis of success factors
in the recorded music industry's transformation to date has formed the foundation of these values, which are outlined in the Conclusions and Recommendations chapter as a strategic framework.
Chapter 7 Conclusions

7.1 Introduction

This chapter contains the conclusions drawn from the Discussion of Results in Chapter Six relating to the three Research Objectives.

The conclusions on Research Objective One consider whether digital music files were a disruptive innovation to the UK recorded music industry using the theories of Christensen, and go on to consider why it was that the UK recorded music industry reacted in the way that it did to the arrival of digital music files distributed via the Internet.

The conclusions on Research Objective Two use the theories of Christensen to identify the factors that made the Apple so successful in developing and operating a digital music retail proposition through iTunes.

The conclusions on Research Objective Three use the earlier analyses of Christensen’s theories to generate a new strategic framework of organisational values that that will assist the UK recorded music industry, or indeed any industry, in identifying and managing future technological innovation impacting the marketplace.

7.2 Limitations of the Study

Prior to presenting the conclusions of this research, it is important to acknowledge that the conclusions will be restricted by various factors. All
research takes place within certain limitations. However, appreciating these limitations enables a deeper understanding of the issues investigated.

This research has been carried out on the UK recorded music industry, with primary data collected through interviews with Respondents who work in the recorded music industry as manufacturers, retailers or consultants. However, access to Respondents was dependent upon their willingness to participate in the research. Some of the potential Respondents contacted declined to be interviewed because they felt that their company would not want to encourage the publication of research into the industry’s response to the digital music file as a retail proposition.

The UK recorded music industry is valued at over US$3 billion (www.ifpi.org), and employs tens of thousands of people. The interviews conducted for this research were structured and in-depth in nature, but they covered a very small proportion of the professionals employed by the industry. Therefore the data sample was limited. Mitigating this is the fact that Respondents were drawn from the senior management tier of the industry, because these people would have the fullest understanding of the industry’s response, and this cohort will be much smaller in size than the tens of thousands employed in the industry as a whole, validating the data and conclusions drawn.

There are four major record labels in the UK and the dynamics, responses and concerns of the management of each are different. Every company has its own retailer and consumer propositions. This means that the Resources, Processes and Values will vary between each record company and these variations in
capabilities will have altered an individual company's chances of success or failure in managing the disruption of the digital music download. Therefore, not all of the factors identified may be relevant to all companies and their management teams, although as an observation of the recorded music industry as a whole the conclusions are valid.

This qualitative research on the recorded music industry's response to the disruptive innovation of the digital music download was conducted through semi-structured interviews supported by an analysis of the industry's previous ability to manage the arrival of new technologies and changing market conditions. The opportunity to complete a large quantitative survey of the industry in a future study would provide a larger data sample for analysis and discussion.

The Respondents were all granted anonymity as part of gaining their agreement to be interviewed. The Respondents therefore could have deliberately lied or could have favoured a particular answer that allowed them to bias the results or present issues that they felt to be particularly important, with little chance of being challenged later. However, the anonymity on balance ought to have encouraged honesty for the same reason.

Although widely accepted, the technique of content analysis to generate themes based on statements of a number of respondents is open to manipulation by the analyser, and therefore the themes derived from the content analysis may be tainted by the Researcher's conscious or unconscious preconceptions.
7.3 Directions of Future Research

There are a number of areas that could be researched further to provide greater depth to the conclusions:

- As suggested in the previous section, a large scale quantitative survey would enable the testing of the robustness of the themes generated qualitatively through the interviews and content analysis.

- The research considers the impact of the digital music file on the recorded music manufacturers only and did not focus on the retailers, consumers or artists. All of these groups are similarly being affected by the innovative technology and should be studied in order to generate the complete picture of the impact of the disruptive technology.

- The record companies are currently challenging whether iTunes's one price per track is appropriate for all downloads. The likely impact of variable pricing on the market should be investigated, for example, the possibility of offering different content at a different price dependent upon its exclusivity and distribution.

- Although the recorded music industry has achieved growth with industry-standard formats (e.g., the vinyl LP album, the vinyl single, the CD) the download ecology is currently promoting competing standards for encryption and digital rights management. Competing digital standards could become a source of major conflict for the industry, with the potential to create consumer confusion in a new sector of the industry.
Consumers’ understanding and likely reaction to this conflict in music encryption codes is an area for investigation to enable a suitable strategy for encryption to be proposed to ensure that it does not impact the growth of the market.

- There are demographic differences between the active buyer of CDs and the digital music downloader. Understanding the different consumer motivations and reactions to propositions is important for the industry because the recorded music industry needs to balance and serve the different needs of all music buying groups no matter what their age or format preference.

7.4 Research Objectives Conclusions

This section presents the research findings relating to the three Research Objectives.

7.4.1 Conclusions for Research Objective One

*Identify the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet, confirming that this innovation was disruptive in nature.*

Research Objective One requires two distinct conclusions. The identification of the factors that influenced the recorded music industry’s indifferent response to the digital music file and its distribution via the Internet, as well as an answer as to whether the digital music file and Internet distribution represented disruptive
innovation. The verification of the second part of the Research Objective will form the first part of the conclusion.

...confirming that this innovation was disruptive in nature.

The analysis of the primary data against the framework of Christensen’s (2000) Principles of Disruptive Innovation and the summary of Constant Characteristic of Disruptive Innovation shows a high degree of correlation with the theories. This correlation between the analysis presented in Chapter Five and the theories described in Chapter Three, as discussed in Chapter Six, validates the conclusion that the digital music file and its distribution via the Internet was indeed a disruptive (rather than sustaining) innovation within the established paradigm of music retailing.

The following is a summary of how the results of the data analysis correspond with Christensen’s (2000, p.264) Principles of Disruptive Innovation:

1. **Companies depend on customers and investors for resources.** The expectations of record company investors and the record retailers both placed considerable pressures on the record companies not to supply appropriate resources to developing the new digital opportunities.

2. **Small markets don’t solve the growth needs of large companies.** The embryonic nature of the digital music file marketplace appeared inconsequential to the needs of the large record companies operating in the billion dollar CD marketplace. Consequently, management failed to assign resources to digital music file opportunities owing to the market’s
limited ability to assist in meeting the overall revenue targets of the record companies. Instead the management worked and allocated resources to delay the decline in CD sales in order to trigger the senior management bonuses linked to the aggressive revenue targets.

3. **Markets that don't exist can't be analysed.** The embryonic nature of the digital music market made any form of management or investor analysis hard to perform, and before the legal market for digital music had been created, such analysis was unfeasible. The planning cycle of the record manufacturing companies operated over a very short timeframe, with returns expected within that timeframe. The digital market was too new, small and unpredictable to be considered within those planning and budgeting parameters.

4. **An organisation's capabilities define its disabilities.** The established organisations in the manufacture of recorded music had a structure that manufactured and distributed physical audio formats. This structure had existed since the production of the wax cylinder through to the CD. Therefore, this legacy business model was the dominant capability and shaped the dominant organisational values. However, with digital music downloads there is not a tangible product and the business model is more clearly focused on the sale of an intellectual right. The established record companies had no resources, retailer relationships or business strategy from which to calculate income, cost and customer demand for digital music files. The success of the CD business model that had achieved
revenue growth for over a decade had also created a myopic business management unable to investigate alternative audio formats embraced by consumers.

5. **Technology supply may not equal market demand.** The disruptive technology may be so technically advanced that it requires the mainstream marketplace to develop technologically in order to optimise the exploitation of the disruptive technology and for the new paradigm to enter the mainstream. This cycle of audio technology recurred with the introduction of the LP, cassette, CD and now digital music files. All these technologies required the marketplace to adapt in format and proposition to the consumer demand.

The S-curve analysis in the Literature Review illustrated how the recorded music marketplace adapted to the audio cassette and CD formats. The analysis of the single digital music file demonstrates how it has now become a major force in the sale of music.

There is further evidence to support the conclusion that the digital music file technology was a disruptive innovation through analysis of Christensen’s (2000) Consistent Characteristics of Disruptive Technologies, which this thesis has structured into four key areas. The features of the digital music file distributed via the Internet correlate with each of these four characteristics of disruptive technologies:

1. First, disruptive technology typically brings a new value proposition for the consumer that is simpler, cheaper, more reliable and convenient. From
the discussion in Chapter Six it is unambiguous that digital music files and Internet distribution have made recorded music simpler to buy, cheaper (for example, the ability to purchase individual tracks unbundled from albums at US$0.99 instead of US$2.49) and more convenient as online retailers like iTunes are open 24 hours a day, 365 days a year and recording delivery is instantaneous through the Internet. The utilisation of the Internet for product distribution supports Christensen’s (2000) theory that disruptive technologies frequently require disruptive distribution channels.

2. Secondly, disruptive technology is usually insignificant initially in the mainstream market. From the discussion in Chapter Six, it is clear that an important factor that led to the established record companies being apathetic towards digital music downloads initially and content to allow Apple into the market, was precisely the low revenues they were generating in comparison to the mainstream CD market.

3. Thirdly, disruptive technology is successful first in an emerging market. In Chapter Six, it was discussed how Apple Computers recognised that there was an emerging market for legal digital music downloads retailed and distributed via the Internet.

4. Fourthly, disruptive technology generally supports a different financial model, e.g., one based on lower margins. The Discussion chapter described the reluctance of the established recorded music companies to adapt their physical pricing model to a digital pricing model and how it
took Apple’s intervention to create the viable consumer proposition in terms of price and flexibility.

Having established that the digital music file technology was a disruptive innovation, the other element of Research Objective One requires the identification of the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet.

Identify the factors that influenced the UK recorded music industry’s reaction to digital music files and their distribution via the Internet...

The content analysis in Chapter Five and subsequent discussion in Chapter Six identified these factors as:

1. Management’s lack of interest in and awareness of new technology, including digital music files and Internet distribution.

2. Management’s lack of market research into music consumers’ habits, intentions and behaviour, leaving them ignorant to the way the needs of their ultimate customers were evolving.

3. Management’s lack of interest in embryonic markets that are not the main focus of the business and that will not initially generate revenue of a size comparable to that from the mature format and markets.

4. Management’s focus on short-term planning and budgeting, compelling the companies to concentrate on driving CD sales to meet the sales targets expected by investors. This was exacerbated by the practice of financially
incentivising management through bonuses linked to sales/revenue targets only and not to new product development.

5. Management’s determination to protect the established distribution structure and retail value chains that were the basis of the established retail proposition. The record manufacturers were unwilling to embrace a new distribution structure like the Internet, having historically used the physical distribution network to exert control on the market. They were also unwilling to update their business models for the Internet, wanting instead to retain the established practice of bundling tracks into albums and the price point of a physical single.

6. Physical format retailers’ (e.g., supermarkets selling CDs) defensive actions to force the record companies to support the physical format retail paradigm.

**Research Objective One: Summary**

It has been concluded that the digital music file and its distribution via the Internet was a disruptive technology to the established retail paradigm of recorded music in the UK. Furthermore, the above elements have been identified as the factors that influenced the UK recorded music industry’s reaction to digital music files and led to its failure to maximise the commercial opportunity.

**7.4.2 Conclusions for Research Objective Two**

*Identify the factors that created a retail proposition for digital music files distributed via the Internet.*
The results in Chapter Five and subsequent discussion in Chapter Six using the theories of Christensen (2000) identified that the following factors combined to create a successful retail proposition for digital music files distributed via the Internet:

1. The iTunes proposition was simpler, cheaper, more reliable and more convenient than the established consumer proposition, based on physical formats like CDs and sold through high street retailers. This resonates with the conclusion under Research Objective One that digital music files and Internet distribution incorporate these characteristics of disruptive technology.

2. The corporate credibility of Apple Computers was influential for all parties involved from the recorded music companies to the consumers, assisting it to become the Internet music retailer.

3. The corporate culture and values developed by Apple’s leadership, particularly CEO Steve Jobs, created an organisation that was ready to speculate the necessary resources to trial and create a digital retail paradigm in the belief that it would become the market leader and create a new dynamic in the marketplace.

4. Steve Jobs’s vision, development of new propositions, and his desire to build a business from a base of zero income and units sold meant that any achievements in digital sales were viewed as positive because the revenue expectations were low, unlike the incumbent recorded music companies’ own benchmark of the established CD model. Apple considered new
markets in isolation and therefore did not try to gauge success using the metrics of mature markets.

5. Steve Jobs's recognition that the marketplace for digital music retail over the Internet was an emerging market and belief that Apple's iPod proposition would engage and be supported by consumers enabled the company to trial a proposition that was widely acclaimed as being consumer-centric, delivering the product and process proposition that the consumers wanted of an Internet music retailer.

6. Apple's alternative perspective (i.e., values) compared with the established recorded music marketplace equipped it with a new viewpoint and strategic approach to the industry and the level of intellectual rights required and at what price to succeed. Apple did not need iTunes to succeed so badly that it would accept any offer from the record companies other than the one that best supported the iTunes proposition. Therefore Apple's independence from the recorded music industry was an advantage and ensured that Apple developed only a proposition that would succeed with the recorded music consumer.

Research Objective Two: Summary

The above elements are the identified values and capabilities that enabled Apple Computers to create a successful retail proposition for digital music files distributed via the Internet.

The Apple values included making the product simpler, cheaper, more reliable and more convenient than the existing physical audio formats or the digital music
stores started by incumbents, which were not consumer-focused. Therefore, either an established retailer or a new entrant could have been successful in developing the proposition for the digital marketplace. However, Apple's independence from the established music industry and its market-developing values assisted its chances of success. Conversely, the established record companies' abilities, including their success during the CD boom, acted in a number of cases as disabilities in adapting to the digital retailing ecology because the incumbents' organisational values did not embrace the new trading paradigm of the digitally-enabled consumer.

7.4.3 Conclusions for Research Objective Three

*Develop a strategic framework that will assist the UK recorded music industry in identifying and managing future technological innovation.*

The development of a framework was completed by identifying the key values that the recorded music industry needs to understand and embrace to achieve successful management of marketplace and technological innovation. These are:

- Understand the real consumer
- Focus on the core assets and capabilities
- Research and trial new consumer propositions
Components of the Strategic Framework

Understand the real consumer

Research and trial new consumer propositions

Focus on the core assets and capabilities

Figure 7.1 Components of the Strategic Framework

Understand the Real Consumer

This requires the manufacturer and retailers to understand what consumers value (and don't value) from the organisation's proposition as well as exactly what they are doing (or not doing) with the core products at the centre of the consumer proposition, i.e., how consumers want to purchase and enjoy recorded music. Failure to understand the consumer's motivations leads to a false sense of their needs and interaction with music.

Strategically, with the consumer need identified, the ability to incorporate consumer knowledge throughout the decision-making process is vital to developing the correct proposition. Therefore, the organisation needs the appropriate human resources, including market research experts, with the
knowledge and skill to analyse consumer needs and market research data, and develop these insights into viable propositions.

**Focus on the Core Assets and Capabilities of the Organisation**

This requires the organisation to recognise precisely what forms the basis of the business and not to allow the current established and successful marketplace or retail paradigm to influence decision prioritisation. This element requires the company and the management to look to develop the best possible products from the core organisational assets and capabilities and to be willing to consider new propositions and even new business models that utilise the same core asset or capability but discard other assets and capabilities that the organisation has, most likely related to a mature retail proposition. This may require the organisation to change distribution and retail channels, establish new formats and change internal and external processes.

**Research and Trial New Consumer Propositions**

The practice of researching and conducting tests on new consumer propositions requires the management to focus on consumer needs and core product desires, which encourages experimentation to understand embryonic retail markets. Retail tests should be conducted in a way that is flexible and dynamic, recognising failure as well as success to develop propositions that can become commercially viable.

This element of the strategic framework recognises how established companies fail to embrace innovative technology because small markets do not solve the growth needs of large companies and because markets that don’t exist cannot be
analysed. However, real data can be collected from real trials and can be scaled to diagnose innovative technology before the market is disrupted.

**Research Objective Three: Summary**

The three elements of this strategic framework must be considered when a developed business is reacting to the impact of innovative technology. Understanding what consumers think, how the innovative technology changes the commercial pricing and distribution model, and how this impacts upon the core proposition will provide the company with a plan of action to evolve an appropriate proposition that will meet the requirements of the business and consumer and in that process complete the next evolutionary cycle of the industry.

**7.5 Summary**

The three Research Objectives have each reached conclusion.

The digital music file distributed via the Internet has been identified as a disruptive innovation. The factors that allowed the innovative technology to disrupt the UK recorded music marketplace have been identified. Furthermore, the factors that enabled Apple Computers to develop successfully a digital music Internet retail proposition have been identified.

The conclusions to the first two Research Objectives were used to create the strategic framework required for the conclusion of the third Research Objective. The development of the strategic framework required the identification of the components of the framework that could be used by the UK recorded music
industry when faced again with innovative technology that could disrupt the established audio formats, distribution structure and trading paradigm. The UK recorded music industry can utilise the strategic framework to develop propositions incorporating any innovative technology to provide the best opportunity to commercialise the technology and maximise the commercial opportunity from exploiting the core asset, i.e., content, of the recorded music industry – the music recording.
Appendix A  Audio Format Sales Data

The following tables present BPI sales data for vinyl LPs, audio cassettes, CDs, and digital download singles.

Table A.1  Sales of Vinyl LP Albums in the UK, 1973-2005

<table>
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<tr>
<th>Year</th>
<th>Units (m)</th>
<th>Value (£m)</th>
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<th>Unit Price (£)</th>
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Source: www.bpi.co.uk
Table A.2  Sales of Audio Cassette Albums in the UK, 1973-2005

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Source: www.bpi.co.uk
Table A.3  Sales of CD Albums in the UK, 1983-2005

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Source: www.bpi.co.uk

Table A.4  Sales of Digital Download Singles in the UK, 2004-2005

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Source: www.bpi.co.uk
Appendix B   Semi-Structured Interview Guide

1. What effect do you think free music files on the Internet had on the recorded music industry?

2. How prepared do you think the UK major record labels were with regard to the Internet in relation to the music industry in:
   - 1995    Before Napster
   - 1999/2000    The Napster years
   - 2002    The KaZaA years
   - 2003    The launch of iTunes
   - 2005    iTunes at its current size and market strength

3. How well do you think the major labels understood the market impact of free digital music files?

4. How well do you think the major labels understood the market impact of related Internet services?

5. In your opinion, how have the major labels integrated Internet-related innovation into their established retailing programmes? Prompt if necessary about the role played by:
   - Capital resources
   - Human resources
   - Internal processes and strategy
   - Values, culture and corporate attitude
6. How do you view the position record labels took in relation to Internet-related technologies?

7. Owning digital opportunities is important to the success for a major record label. How do you think the following parties have helped or hindered this?
   - The companies (which)
   - Trade associations (which)
   - The lawyers / legal aspects
   - Artists’ managers
   - Artists

8. Apple is perceived to have recently become successful with Internet-related products for music. What is your view about this statement? Prompt if necessary about the role played by:
   - Capital resources
   - Human resources
   - Internal processes and strategy
   - Values, culture and corporate attitude

9. In your opinion, how can the recorded music industry be prepared so that in the future it benefits from new technology across the business paradigm?
Appendix C Interviewee Credentials

For reasons of interviewee confidentiality, the full set of interview transcripts are presented in a separate confidential Appendix E, available to examiners upon request.

However, to provide an indication of the range and expertise of the Respondents interviewed, Table C.1 below presents their credentials anonymously.

Table C.1 Anonymous List of Respondents’ Credentials

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<th>Type of Company</th>
<th>Role</th>
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Appendix D  Sample Transcript and Content Analysis

The following annotated interview transcript illustrates how Respondent themes were identified. Key statements have been highlighted in yellow and in each case a comment has been added describing the theme. (Sensitive information has been redacted.)

...not being published anywhere, this is just for your own use right, for research?

It will be used for research, it will be, if I do use it within the thesis, I assume everything you say you would like to be non attributable to you, comments will remain an industry figure or something of that, is that acceptable to you?

Yes that’s fine.

Ok so it’s basically non attributable, so I would like you to be as free thinking as you possibly can be and I realise that as a CEO of a fund you are somewhat restricted by what you can say, so all of this will be non attributed to you personally but they will relate to somebody to the industry, a major figure in the industry set. So I hope that’s acceptable.

Sure.

Ok, how much time do I have? I know everybody’s time is very precious, so how much time do I have?

I have an eleven thirty call, so that’s in twenty minutes, twenty two minutes, but I can push that out a little bit if need be.

Ok. Just so you understand, what I’m looking at is the disruptive innovation to the later labels that the inset has created, or not as the case may be, I don’t want to prescribe an answer. So that’s the kind of area that I’m investigating. You may think some of the questions I ask you are simplistic but what I’m trying to do is to obviously, as a good interviewer or academic, I’m trying to get you to say what is true rather than me telling you what’s true. So if you think this boy knows nothing, it’s just because I’m trying to get you to say something which attributes ...

I understand.
So nice easy question to start off with is, how do you define the effect of the internet on the music industry?

It’s just a, it’s on many different levels. The fact there are many different levels, there’s the simple cost effects of doing digital distribution that in theory reduce physical costs and should be a profit enhancer. There are effects on the oligopoly of, the oligopoly power held by the distributors today, which are really for main companies and obviously as distribution shows from physical to digital, the power of that oligopoly decreases, which affects a lot of things. It affects their ability to gain price of positioning and have their products more heavily featured or more prominently featured than say independent music because they’re not shipping the same volumes into the same channels. It affects the cost and methods of doing promotion, it affects the methods of reaching customers and allows for actual knowledge of who the customers are, which is something that record companies never had. It allows bands to communicate directly with fans which didn’t exist, except for fan clubs and the like. It allows for word of mouth to be magnified by means that didn’t exist before that could allow certain music to rise above a percentage, a larger percentage of market share that it otherwise wouldn’t have had, had it, there been only traditional means of reaching customers.

Ok. What do you think or how would you describe the internet, the record companies pre Napster, how would you describe their understanding of each other or their relationship with each other?

Simplistic, stuck in their ways, happy. Somewhat almost bored in their approach to the industry, not a lot had changed, you know, very set in their ways.

How do you describe, or how do you react to the industry’s reaction to digital downloads through a site like Napster?

Well I think the industry’s general reaction to digital distribution one has to judge as a failure in looking back over the last eight years or so.

And why do you think it was a failure?

Well I can give examples to support why I believe it’s a failure and I can tell you why I think they did what they did. So they, they basically believed that digital distribution was a new form of distribution that they needed to and could own and control. Just like they own and controlled physical distribution. They also didn’t believe that it would happen without their express consent and participation and so therefore they took their time in trying to figure out what should we do here and the decisions they made were well let’s start our own, rather than licence and support other players that may promote or sell music online, let’s try to own all that ourselves. So they launched literally thirty, forty or fifty different web based businesses that were competing with much more successful market based versions of the same thing. BMG lost, BMG launched
sites like Twangless and Bugjuice. Warner launched something called DAVE, the Digital Audio Video Exchange. Capital had something called hollywoodandvine.com. Ear-One I believe was also Warner. Sony had, the names are all starting to fade, literally scores of efforts to try to compete with physical CD retailers, digital music retailers and digital music community or genre based magazines and websites, all of which failed. Not a single one of them is successful.

Was there any commonality in the failure of those sites?

I think just square peg in a round hole. These were companies that had never met one of their customers before, trying to serve them. It’s not that they’re incapable of doing it but it’s that they certainly didn’t have the right people and the right mentality to launch and sustain businesses that focused directly on end users.

Can we talk, can I just stop you there, can we talk about customers. What do you mean by they’d never met a customer?

The record industry’s customers are distributors and retailers. The record industry had never met a consumer before, they’d never interacted with them. There was no reason for a consumer to know who a record label was or interact with them. The record industry never sold a product to a consumer.

Right.

It was the retailers that interface with consumers.

And how do you think the detailing, with this fashion, the activity of record companies?

Oh I think retailers whined a lot and said you know, we don’t want you talking to our customers and selling directly to them and retailers had a lot of power and the industry listened to that for a while. Some specific examples where I believe Sony music was, I think it was Sony but don’t quote me on that, you have to do some research, were shipping CDs that had a URL inside the sleeve, that took people to like sonymusic.com where they could buy more music and Tower Records barked at carrying any of those CDs because they were selling CDs directly, Tower were selling CDs direct through to customers and then saying that Sony was unfairly poaching their customers.

Ok you also mentioned the people and the finance, when you said that record companies had never had this ability. What did you mean by the people and the resources, what did you mean by that?

Well people that were very good, I’m talking about the employees at record companies, maintained skill sets and expertise in areas that were not relevant and still aren’t relevant to launching and maintaining consumer facing businesses.
And what about the financial resources, what do you ...?

Well they had plenty of financial resources.

Ok. So to continue, we kind of highlighted that record companies had no idea of how to interface, they didn’t have the right fit in the people they owned. How does that in your opinion affect that by using cultures around that?

Well I just want to point out, I think the failure was in, not just in trying to do things that they weren’t good at because that’s, you shouldn’t scold a company for doing that, that’s good to expand your business in different ways.

Sure.

The failure was in thinking that they had to do it themselves and in intentionally thwarting the ecosystem of other companies that were the new version of the music industry ecosystem. The old version of the music industry ecosystem was radio promoters, radio stations, you know, club owners, physical CD retailers. Everyone had their role and did their thing and the music industry was happy paying and giving up margin along the way. The digital version began to form and now is in full force and the music industry didn’t want to give up any of their margin to any of that and didn’t want a new ecosystem to develop and tried to prevent it, which is sort of a silly thing because of the digital created an entirely different environment, where different sets of expertise and different players emerged to rearrange the value chain. The music industry should have been supportive of that.

Do you understand why the record companies wanted to not support the new ecosystem or do you have an opinion why they ...?

Yes, just simple sort of business arrogance, hey why should we give up our margins on any of these new guys, why should we let them build a business on our backs. Now another approach might have been, hey here comes a whole bunch of new guys that want to try to sell music for us in every different way, why don’t we work closely with them and maybe even get some equity in their company or become partnered with them early on, should they get big and powerful like MTV did, we’ll benefit. That wasn’t the approach they took generally. There’s a few examples contrary to that but generally that wasn’t the approach.

The record companies opinions, they were very very robust in defending that and following that strategy, do you think that again that had any influence on either the people that wanted to do it illegally, the illegal people who were building in that site or do you think that the record companies activities in the market place did little or nothing to hamper what was a natural phenomenon that was going to happen anyway?
Well there’s proof that it didn’t, that their activities did nothing right. Previous to
the emergence of digital distribution of music, the record industry controlled
every single format migration that had occurred. They introduced the CD, the
LP, the eight track, the DCC, every physical format change that occurred was
supported by and controlled by the industry, some succeeded, some failed. But in
any case they introduced the format to the customers. Digital was the first format
shift that not only occurred without the support of but occurred with the express
resentment of the record industry. They tried their best to stop it and they
ignored the demand that Napster demonstrated. You, by instead, just saying you
know these are all thieves and we’re going to sue to shut them all down, as
opposed to saying hang on there’s a phenomenon going on here, consumers want
digital and we tried to do it ourselves and have failed, so we might want to think
about supporting an alternate ecosystem here, Napster being the most prime
example you know. At it’s peak, I don’t know, hundred million users and no
pirate faltering that were existing. Now it was hard for them to foresee the
emergency of pirate faltering but it didn’t take brains to see that if one kid could
do it, twenty eight million kids could write the same software and the Napster
software was nothing very difficult to write. So the cost of creating something
similar were low, they should have, in my opinion

The undoing of the other four or the undoing of the five?

Well as a result all five were now four, you know.

but they were still trying to keep their own, the old guard were trying to
keep control of their business as they understood it and then the next major
moment is Apple and as far as I’m concerned, opinionated again, would you
have said Apple, from the closing down of Napster to the arrival of Apple,
were kind of the pinnacle moments in the development of the ecology of the
legal entity?

You know there were many things that occurred in between that, that most people
don’t have memory of, that allowed Apple to do what they did. You know I
mean the development of, really the development, I mean maybe you could argue
this as pre Napster but the development of the MP3 is probably the most
significant.

Sure.

The development of Winamp.

Yes.
Which allowed millions of people for free to start playing stuff back and was really the first successful player.

But in the market ecology there seems to be, I agree MP3, the whole underground music archive, leading to the creation of an uncontrolled market place which Napster then comes in and provides some form of structural service to, that actually says look there is a way that we can manage this plethora of information that’s available and then the closing down of Napster obviously does create as you say the other alternative, twenty eight million eighteen year olds to go off and do their thing at KaZaA and Grockster and things like that, are perhaps the very top of the tree of those programs. But if they work in this illegal area and the music industry’s attitude at that time was an incredibly bizarre kind of approach to subscription models and things of that nature, I was just wondering what you considered to be, I mean you’ve already highlighted them very well but when Napster closed down, what was the next …?

Well I forget exactly when the real case was.

Yes.

I forget if that was pre or post Napster being closed down, I think it probably was pre but that was a seminal moment that without which there would be no iPod and without any iPod there would be no i-tunes.

Right.

So that, the fact that that diamond, diamond which was, Diamond. The name of the company, was willing to fight that battle and did and won at the appellate level, you know, allowed for the introduction and popularity of port one to three players, you know Apple was very, was one of the latest … Apple really did have very little innovation in the product other than to commercialise devices that existed already but just to commercialise it much better. I mean, I think you’re still right in saying those are big moments.

Why do you think, with all the power of the major labels, Apple could actually commercialise it in a way that nobody else could?

Well I think, the reason Apple was able to get the service off the ground in a way that was successful with consumers was because the labels granted rights to Apple that they had not granted to anyone else at all. They allowed the 99 cent price point, which had not existed before, it was basically a 2.49 price point.

Sure.

They allowed for you know, much more liberal at the time usage rights, you know, working on multiple machines and burning of CDs, none of that was available before in any licence you could get and they agreed to universal pricing
for the entire catalogue and they agreed to make their, as much of their entire
catalogues available as possible. The question is why did the labels go to great
lengths with Apple and there’s no-one else and that’s honestly and truthfully the
number one reason, they are multiple reasons but the number one reason, no
matter what anyone says, is the charisma of Steve Jobs. They were enamoured to
have him come into the office, you know, he’s a legend, they were enamoured,
they knew that he had the ability to, to market a service probably more effectively
than any other people who had been banging on the door asking for licences, you
know, financial wherewithal but I really, I think it was because they were
enamoured with him. They were charmed by him.

Even though his first kind of approach to the music industry was to say hey
we can help you steal music faster and more effectively? The first campaign
was about ripping music, it had nothing about I-tunes. Why do you think
they allowed that, this demeanour not to be punished?

Well you know they did call him on that and he, I remember him making some
public apology. I mean the word rip is not what he, he didn’t invent that word
and it’s an unfortunate word that really was not about ripping off, it was about
ripping from the CD to your hard drive and that’s all he was really encouraging,
so I kind of see that as an unfortunate semantic situation. He was encouraging
activity that many of us hold dearly to be legal and permissible under fair use and
much to the record company’s chagrin but still it’s true, it’s permissible. He was
encouraging people to do whatever they wanted to do with their music. Now
prior to him running that campaign the music industry should have realised what
was happening. I think it was in 2001, maybe it was 2002, one of those two
years, there were something like two to three billion CDs sold worldwide and 5.2
billion CDRs sold. So I mean when blank CDs passed by a factor of two, the
number of recorded music, there was a problem long before Steve Jobs started.
So why did they not punish him? Because …

Why didn’t they notice that particular dynamic between blank and recorded
CDs?

I can’t say for certain that they didn’t notice it but their actions in the market
didn’t show an understanding of the ramifications of that.

Absolutely. I just wondered if you had any ideas why they didn’t react.

So he, there were rumours that they were going to go after him. What could they
have done though? Sue him for inducement for which there is no law for rending
or doing, for copyright infringement, I mean the case would never have gone that
way. Regardless of the semantics used he was encouraging activity that’s
protected.

Ok. If we take Steve Jobs as a figurehead and as the charisma and the
charm, which I think are a fascinating area of analysis and review, could you
compare and contrast Apple as an organisation with record companies and
organisations in your view as to why Apple appeared to be able to grasp this more effectively than the record company?

It’s really, it’s not a fair comparison because you could pick hundreds of other companies that would have got it and the record, it’s not the record industry didn’t quite get it, it’s self-cannibalising is very difficult to do and they needed to do it, they needed to say we got to shoot the physical business in the head and get out there aggressively and make the digital business happen and they only did it with Steve Jobs out of desperation but you know the argument prior to that was, we can’t charge 99 cents a song, we’re going to destroy our CD business. We can’t start unbundling songs. That was a huge argument, many, many labels protested to anyone who wanted to sell songs was that, you’re going to destroy our CD business, the bundling of songs. It wasn’t until Jobs came along that he was able to convince them to discard that argument. Now they embrace it. So you know, it was those types of fears that prevented them from doing what consumers were already doing.

Ok, I’m aware we’re on the half hour so I’m going to try and, just one last question. It would appear from everything that you’ve said that the record companies were somewhat caught by surprise in their lack of, their loss of control. What should the record companies be doing in the future, or how should they be structuring their businesses in the future so that they’re never in the same position again?

Well I think inherently they need to pay attention to consumers, which they have just not done historically. What consumers were doing was you know, on the order of five to ten times the size of the business itself, were out there trading, stealing, digitising, being flexible, and doing lots of things with their music. Most industries would look at that and say this is fantastic, look how interactive our consumers are with our products. This can only help us become more a part of their lives and get a bigger share of their wallet because they’re doing things with music that they otherwise wouldn’t be doing when the records were just LPs on vinyl, you couldn’t do all the things with their music, so we’re making music a bigger part of their lives, we just need to figure out how to serve them and sell them lots of other things related to our music so we can get a bigger share of their wallet. Instead they said our customers are criminals and we should sue them all and we should lock everything up and now let’s lock all the CDs up too because that’s the cause of the problem and let’s take away from the customers, let’s actually, we sold them CDs since 1983 that they could do anything they wanted with, now let’s take that away as opposed to give them more. Our industry is down 35%, sales over the last five years, let’s take the, and the number of buyers is down as well, probably around the same amount, let’s take the few that remain and let’s make life harder for them. Let’s take away from them and we won’t even lower the price. You know that to me is a recipe for disaster that will be very easily told in a story like this a few years from now. Is that you know, faced with irrefutable metrics showing their business in rapid decline and knowing that their customers are besieged with so many other entertainment choices that
compete for the same dollar, rather than give them more at a lower price, the industry wants to give them less.

Ok I'm going to run through some areas here, sort of five quick points where, how a company is structured. Just say, if you could just say very quickly where you think that they should be, how the record companies in the future should be reacting. The first one is human resources, what should they be doing now to build a company for the future?

Hiring more people who are customer centric and customer savvy, they know consumers. They should be trying to weed out the copyright law purists that pervade the companies, whose attitude is you know every single use of our music we should be paid for, consumers have no rights. You know those people need to be sort of backed off and put out for early retirement.

What about in terms of internal processes and strategy? I think you may have touched on this, if you say you've dealt with it, but what should their internal processes and strategies be?

Are you saying like, what type of meetings should they have?

I think you've said it already but in terms of what should their, let's go to this one, what should their culture be now, rather than, how should their culture ...

I think corporate attitude changed. I think the attitude should be a two fold change. One is what are we really good at? We're good at finding and marketing talent and we should cultivate an ecosystem of millions and millions of sellers of our music, every possible method. We should make it as easy as possible to buy and use our music for whatever permissible under law uses consumers may come up with. We should not be seen as besieging our customers with burdens. So that requires a cultural shift and I think they also should say you know, we need to be up on, and familiar with consumer trends and find many, many different ways to have our music used and supported by, used in different uses for consumers, that touch consumers.

That's all my questions.

Great.

Is that ok?

Yes sure. Perfect.
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