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Technological Innovations and Evolution of The Electronic Music Industry



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Technological Innovations and Evolution of The Electronic Music Industry

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Dissertation
prepared
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ABSTRACT

The fundamental aim of the study is to analyse the impact of technological innovation on the electronic music industry. In the following study, the researcher coordinated the use of the qualitative existence of data where the researcher used the secondary sources to obtain the data and then evaluated it using the qualitative evaluation process. Here, the researcher has enabled the use of secondary data collection methods using different sources from the web, journals, articles, books and news reports presenting the data regarding the technological innovation in the music industry. The following research is based on the qualitative nature of data for assessing the impact of technological innovation in the music industry. As the researcher has selected the methods of secondary data collection, the most suitable method to be used for data analysis is the content analysis method that has been used by the researchers for addressing the research problems. There is a direct impact for digitalization in the music industry which leads towards utilization and evolution of new innovative technologies that are used in order to produce as well as market the music. In addition to this there is an experience which needs to fix the artwork that can be compared with the live music shows is considered to be quietly different along with production of music are digitized now. It has been found that there is importance of technological advancements for creation and marketing of electronic music, which have revolutionised which expresses music as well as share the music all over the world. Internet has mainly arranged the industry of music that successfully organised the system of value chain for the music

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Declaration of the student’ individual preparation of the Master’s Dissertation

Warsaw, 2020

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DECLARATION

I declare that the Master's Dissertation titled.: Technological Innovations And Evolution Of The Electronic Music Industry

which was submitted at Kozminski University, was written by me alone and has not previously been the subject of any official procedure associated with applying for a higher education diploma which confirms obtaining a professional title.

I also declare that the present dissertation does not infringe copyrights under Act of 4 February 1994 on Copyright and Related Rights (Journal of Laws of 2017, item 880) or personal rights protected by law.

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I declare that the Master's Dissertation titled: Technological Innovations And Evolution Of The Electronic Music Industry

This dissertation is an important landmark of my academic career. I have been fortunate to understand important concepts, historical innovations, and new interfaces. I am grateful to several people who have helped me and supported my research process and provide me assistance for my venture.

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Finally, I want to thank my family who have supported me along the course of this research work by providing me the moral, emotional and psychological support I need to complete my dissertation.

To them, I am really grateful.

DECLARATION OF THE SUPERVISOR

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...2020.....
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and submitted at Kozminski University, was prepared under my supervision.

Concurrently, I acknowledge that the content of the Master's Dissertation will be verified with the anti-plagiarism program which cooperates with the national repository of written dissertations.

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CHAPTER 1: INTRODUCTION

1.1 Chapter Introduction

The chapter is inclined towards providing a complete overview of the entire study. The chapter is divided into different sections where each section takes a specific aspect of the research into consideration. The initial sections give the background of the study along with stating the problem of the research. Further sections are concentrated towards proposing aims, objectives and questions of the research. However the following section takes the rationale of the study into account where the need for conducting the research is being explained. Scope and significance of the study have also been explained in the chapter in the next section. The chapter closes with the section of conclusion where all sections of the chapter have been briefly concluded.

1.2. Background of the Study

The music industry has been rearranged by the internet in which the technological advancements have led to several innovations. It has also been argued in the study of Tang and Lyons (2016) that since the emergence of streaming services, the reformation of the value chain has speeded up. The consumption of music has been shifted to access from the ownership as the roles of consumers and creators have distorted, there has been disruption in the money flows and traditional revenue base of the industry. On the other hand, the music is considered as the form of art which has originated in the primitive era having its origins being unknown. In contrast to this, the music has evolved with the passage of time into different kinds and types along with the involvement of several instruments which are used for the purpose of producing sounds. This has also been stated in the study of Zhang (2018) that the music has evolved over the years which has also shaped the entire music industry. Earlier, the music industry was an independent form of art however, in the late 19th century, the reproduction of sound along with broadcasting and recording transformed the industry of music along with several record labels and companies entering the industry have billions of recording artists (Pras, Guastavin and Lavoie, 2013). These recordings of the music were sold in CDs while turning the music industry into a billion dollar venture. However, since the advancement of technology, the reproduction and recording of music vanished with the introduction of technology and the internet with online streaming services. In this manner, most of the firms which were involved in the production and recording of music went out of business.

There are various players in the music industry which have captured the entire market of the music industry. These companies include Amazon Music, Google Play, Spotify and Apple Music in the modern electronic music industry while offering seamless services related to streaming of music (Saragih, Simatupang and Sunitiyoso, 2018). This has all been made possible due to the rapid advancement in technology. It has also been argued in the study of Hviid, Izquierdo Sanchez and Jacques (2017) that with the advancement of technology, several digital companies have captured the market of the music industry while making the traditional production and recording companies vanished. In addition to this, the other aspect is associated with the introduction of several electronic instruments which have played a crucial part in terms of revolutionising the music industry to electronic music industry. These instruments have played a crucial role in making necessary improvements in the music and make the final album more appealing. This has also been stated in the study of Lerch (2018) that the assistance of various instruments have transformed the entire music industry with the contemporary practices and methods to produce the music.

1.3. Problem Statement

Considering the advancement of technology, the entire music industry has shaped for the betterment while providing ease to the consumers in terms of getting access to music much easier. However, with the rapid revolution of this music industry, most of the companies which have been leading the industry quite a time ago have been unable to adopt themselves which has vanished their existence from the digitalised music industry. It has been argued in the study of Parc and Kawashima (2018) that the rapid digitalisation of the music industry has made it difficult for most of the conventional companies operating in the music industry to sustain their business. It has been due to the reason that the companies previously used to sell CDs after recording the music which has now been transformed into digital and online streaming through the internet. However, these companies would not have enough capabilities or resources through which they could revolutionise their entire process of business. This has also been stated in the study of Guichardaz, Bach and Penin (2019) that companies lack the ability to digitalise the entire process of music production and recording which has made these companies vanish from the music industry.

On the other hand, this opportunity has been captured by several companies which already have capabilities to adapt with the changes involved in the entire music industry and with the advancement of technology. It has also been argued in the study of Hesmondhalgh

and Meier (2018) that the rapid development of internet and technology has been captured by several companies in the music industry while making digitalisation as the opportunity. It has been due to the reason the previous leaders of the music industry do not have the capability to adapt the changes in the modern environment which has been captured by companies like Amazon Music, Google Play, Spotify and Apple Music. In this manner, this creates the issue for the companies which are still reliant on CDs.

1.4 Research Questions

Following are the questions of the research

Q1. How did electronic media influence music creation and marketing?

Q2. What role was played by innovation and technological shifts, particularly in the creation and marketing in the music industry?

Q3. How did technological innovation influence shifts in the electronic music industry?

1.5 Research Aim and Objectives

The fundamental aim of the study is to analyze the impact of technological innovation on the electronic music industry. Following are the objectives that have been formulated in order to achieve the fundamental aim of the study.

- To examine the history of evolution of electronic music over the years in terms of music creation and marketing.
- To analyze the importance of innovation and technological advancement for the creation and marketing of the music.
- To analyze the impact of technological innovation on the electronic music industry.

1.6 Rationale of the Study

Technological advancement has been a major reason behind a drastic change that is being observed in different sectors and industries. There is plenty of data on the internet that specifically takes into account the change that is witnessed by different industries (Hanson, 2018). However most of the researches are focused on the business environment. Innovation and technological advancement along with its impact is largely discussed for industries like

retail industry, automobile industry, real estate industry or oil and gas industry. There is much limited research that specifically explains the impact of innovation or technology on the music industry (Moreau, 2013).

However the music industry is one of the fastest growing industries because today there are a lot of platforms where singers or musicians can showcase their talent and get a chance to come in the limelight (Benner and Waldfogel, 2016). Social media and applications like sound cloud are significantly contributing in making in the industry grow in all perspectives. Instruments have also got much more advanced than they were before (Zucker, 2016). Therefore the manufacturing, supply chain, marketing, distribution and all other departments of the music industry are benefiting with this change. Thus there has been a dire need of research which analyzes the technological impact specifically on the music industry. Researches that are available in this regard are also not updated with the latest trends in music. Thus updated information has been lacking in the previous studies (Breen, 2004). Trends in music change every once in a while and those changing trends need to be taken in consideration in research (Tschmuck, 2006). This research not only discusses the impact of technological advancement but also explains the history of music and its evolution in different ages. The chapter of literature has also shed light on many researches that have been carried out by various researchers in the past.

1.7 Scope of the Study

The scope of the study is not narrow but broad because it is not only beneficial for a specific audience but it can be helpful to people belonging to different professions. Technological advancement and its impact have been one of the most discussed topics today (Fakuda, 2020). There are many researchers that are carrying out or planning to carry out research in this regard. Thus this research will benefit those researchers as it will serve as a secondary data to them. This will also add to the extensive literature that already exists on the internet. The study will have a greater scope because it does not only take the music industry as a whole rather it specifically talks about the electronic music industry where all instruments that are regarded are electronic ones. Apart from this it categorically discusses the impact of technological advancement or innovation on creation as well as the aspect of marketing in the industry. The study also explains the role of marketing in the electronic media industry as with the technological innovations the means of marketing have also been increased which have proved to be beneficial for the industry.

The study will be beneficial not only to the musicians that play the music or are passionate about instruments but also to millions of people around the world that are involved in the business of music one way or another. Music composers and producers can also get an idea of how new technology can bring a few needed amendments in their work or proceedings. Beginner level singers and musicians can learn a lot from this study and they can implement learnings to make their work better in terms of efficiency. Moreover, the study can be useful for students particularly those that are having majors in music, electronic media, marketing and technology. The study will not only help them for their academic purposes but will also be useful when they get a hands on experience in their respective professions.

1.8. Structure of the Study

The first section of the study is associated with the introduction of the study which involves the background, problem statement, significance of the study along with the research aims and objectives.

The second chapter of the study is associated with the literature review which has been carried out on the topics which are relevant to the study. In this manner the critical review of related articles has been carried out along with the theoretical and conceptual model of the study.

The third section includes the methodology which has been adopted by the researcher for the purpose of conducting this study. This section includes the research design, philosophy, research approach, data collection and data analysis method.

The fourth section of the study is associated with the findings and analysis of the study based on the data gathered from secondary sources and will be analysed qualitatively using the content analysis.

The fifth section of the study is related to the conclusion and recommendation which has been provided based on the analysis and findings of the study. This includes the summarised findings, future implications, recommendations and conclusion.

CHAPTER 02 LITERATURE REVIEW

2.1. Introduction

This section is grounded on the literature review which has been conducted on the study associated with determination of technological innovation impact on the electronic music industry. In this manner, the history of electronic music and its evolution over the years has been discussed in this section. In addition to this, the technological innovation of the electronic music industry has also been included in this section of the study. On the other hand, the factors of technological innovation which are influencing the electronic music sector have also been determined. It shows that how the advancements in technology are influencing the music industry and these factors must be considered by the companies already operating in the music industry to evaluate themselves with the rapid advancement of technology. Additionally, the concept that how digital technology has led to the delocalisation of recording studios has also been included in this section of the study which provides how the international markets have merged and industries have collaborated with each other. Moreover, the aesthetic approaches to the musical recording has also been discussed in this section along with the effect of new technologies on the established practices of recorded music. Furthermore, the theoretical framework is also included which provides the relevant theory on which the study has been grounded. Along with the theoretical framework, the conceptual framework of the study has also been provided which helps to determine the association among variables. Lastly, the summary has also been provided at the end of this section.

2.2 History of Electronic Music and its Evolution Over the Years

Since the invention of the sound production system in the 19th century, the studio practices in the musical recording evolves and reshapes the music recording industry. Recently, file sharing and networking systems affect professional recording studios. A direct consequence of the digitalization in the music industry led to the evolvement and utilizing new innovation technologies to produce music. Furthermore, the experience of the fix artwork as compared to the live music show is quietly different and music productions are now digitized (Pras, Guastavino, and Lavoie, 2013). Music is one of the most ancient experiences for human beings and from time to time, there have been various revolutions that were brought in the music industry in terms of technological innovation. Only in the last 150 years, the

technological intervention was done by the human beings in the music industry and how the sharing of music is now common and easy for the people all around the world (Ariniello, 2010).

Since the inception of the music industry in the 18th century, one constant factor that has been observed and noticed in the music industry is the technological revolution and the formalization of innovation to update the music recording industry. The use of new technologies has something that has been encouraged in the music industry and from the past century the advancement was done technologically to produce music and to share music within online networking system (ΦΟΥΝΤΟΥΚΙΑΔΗΣ, and ΦΡΑΓΓΟΥΛΗ, 2013). Moreover, the technology has been used as a promotional tool and to market the music industry and artists that are creating music and giving successful phases to the musical system.

2.3 Technological Innovation on Electronic Music Industry

The online approach of music has revolutionized that expresses music and shares music worldwide. Internet reformation from the 90's is of the successful technological innovation that has been seen in the music industry. The Internet has rearranged the music industry and successfully reorganized the value chain system for the music. Nowadays, technology has made a radical change in the music system. Such as piracy system, socio-cultural impact, Digital stream ripping, mobile music piracy and various others. As more technological innovation has been seen in the music revolution, more importantly the restrictions in the music system reforms the file sharing network system (De León, and Gupta, 2017). Technological changes means for increasing and distributing music industry revenue. From the last century, the music industry revenue has constantly increased and now in the modern entertainment industry, there are million dollar businesses that have been generated via music.

A large number of production houses and digital media studios have been developed and established to produce music. The established companies that are operating in the music industry were hesitant to enhance the changes that are brought up by the technology and internet (Dolata, 2011). Not only the music industry but the participants such as music producers, directors, recorders, singers and the music business is influenced by the implementation of technological innovation. The music industry has drastically changed such as innovation in the music that are produced, performed, distributed, and consumed. Moreover, sound generation and sound modifications are also influenced by technological advancement. The most significant technological advancement that has been

done is based on the possibility to record and distribute music on a large scale system (Lerch, 2018). Moreover, the disc and the other set of equipment were produced during the technological revolution that has impacted the music industry.

2.4 Factors of Technological Innovation Impacting the Electronic Music Sector

Following are the factors of technological revolution impacting the electronic music industry :

2.4.1 Social Networking Sites

Social media networking sites are the major technological advancement that has been seen in the 21st century. The social media platforms such as Facebook, YouTube, Daily motion and other entertainment websites reach out to a mass number of people to spread music. Nowadays, almost each individual utilizes these social media networking sites and in daily life the importance of these sites have increased. As their popularity grew, it allowed any user to join these websites for free and more people use YouTube to listen to music and different trailers. There are billions of people in the world that are actively using these platforms for music (Valencia, 2008). Myspace website that are frequently used to determine the sales of music albums and provides data such as page view, song plays with the number of fans for music and video play, radio, and albums. Moreover, this website is specifically experiencing traffic for the music or online activities related to the music (Yue, 2011).

Moreover, social media websites are used to evaluate the music marketing and how it has been changed for the artist marketing such as singers and music play producers are constantly utilizing the social media and networking sites to develop consumer motivation and music industry perspective. Web 2.0 and other social networking sites are changing the user's imaginative perspective and also creating opportunities for the music studios businesses to reproduce new business models that are more creative innovative in the modern digital era (Salo, Lankinen, and Mäntymäki, 2013). Changes in the musical practices are done based on the social media changes such as new dynamics for media and broader processes for social change also brings the changes in the music consumption. Moreover, the pattern of the music consumption with the changes in the use of social networking sites changes (Holt, 2014). There has been a direct relationship of the changes in the digital traffic on social media sites with the music industry.

2.4.2 Peer-to-Peer File Sharing

Digital distribution of the music through peer to peer file sharing is now a common process in the digital era and the technological peer to peer sharing of files has increased the file sharing patterns for music. More people are now considering and involved in the sharing of music from one server to another and the data file sharing has become easy through the internet. People sharing links of the music and people connecting through music is now a common habit. The music industry has experienced various threats of peer to peer sharing of files digitally; however, various laws and regulations have been set up that regulate the music industry (Alexander, 2002). The most important impact that has been seen of the P2P file digital file sharing on the sales of DVD music. The sales has drastically decreased and more people are encouraged to download the music online.

The trend of downloading music has changed and people are purchasing music or listening to the music from the social media platform. The technological revolution in the communications and information technologies has been revolutionized that encourages the micro-electronics including the emergence of digital technological patterns has been shifted and the economic status of the music has also been changed (Andersen, and Frenz, 2010). Another transformation in the music industry or music's sellers have experienced that computer owners have changed the sharing way of file and music from DVD's or CD's to more online and internet revolution and P2P sharing is now more common among people than any other means of music sharing. The internet connection and the music purchases are also directly linked that encourages the process of the digital file sharing that has the major impact on the electronic music industry (Michel, 2006).

2.4.3 Digital Accessibility

Digital accessibility is now the most important factor of technological innovation that has impacted the electronic musical industry. The online accessibility through digital media has impacted the music industry and increases the pattern of music through online channels. The online traffic has increased the opportunity to bring music to the mass population. The internet revolution brings various accessible opportunities to the music industry and record studios are now directly in the communication with the target audience. Nowadays, people can easily access the music of their choice. Moreover, companies are accessing the tactics to engage with the people and to deliver the new recorded music in less time (Frid, 2019). Moreover, the

digital media has also provided people to attend online concerts and to participate in live music shows. These tactics are used to increase the digital patterns of the music and musical industry and are influencing their ways of adopting the music culture. Moreover, social media in accessing the latest music recordings, live sessions, music education, and music broadcasting is easier for the people. Music industry is continuously supported by digital means to access, which is positive from the consumer point of view (Hannan, 2003). People from all age groups are involved in listening to music and it is now a daily part of mass people's lives. Therefore, accessibility was one of the main issues that was solved via digital accessibility through the internet. Before the internet revolution each individual had to purchase the DVD's or CD's, which is not an option for all the people.

2.4.4 Digital Production

With the new digital production equipments that are commonly used by the musical studios operating in the musical industry encourages producers to adopt the digital instruments for the production. Instruments such as, Electric guitar that produces loud string sound via electricity, touchless controllers, Brain-Computer Music Interfaces (BCMIs), adapted instruments, wearable controllers or prosthetic devices, mouth-operated controllers, audio controllers, gaze controllers, touchscreen controllers, and mouse-controlled interfaces . These instruments are produced from time to time that enhances digital production system (Bourreau, Moreau, and Gensollen, 2008). A great amount of competition in the music industry has been noticed for over a time and digital instruments influences the functioning of the music. The extended opportunities of the versioning has also impacted the recording companies and content owners may design the service menus and could charge based on the service in the music industry (Foga, and Montague, 2000).

2.5 Digital Technology Led to The Delocalisation of the Recording Studio

Technological improvement has provided evidence that the recording studios requires a change that is directed through innovation and delocalising via digital technologies. More importantly a shift in the paradigm has suggested the room for improvement in the musical industry and studios. Through ages, musical companies have experienced the change that has impacted the music delocalisation happened successfully. With the less technology there are more restrictions in composing and producing music. Professionals are encouraged to drive through technological innovation and to enhance digitalization in the studios (Pras, Guastavino,

and Lavoie, 2013). Recording composing methods were outdated that digital technology has changed the way of producing music. However, with the implementation of digital technology, a major requirement of budget is there and to cater that music industry conducts a great amount of business.

The music industry has been radically transformed by software and people experiencing the development of software that determines the interest and process of change through innovation. Delocalisation in the recording studios deals to mitigate the restrictions that are faced during the productions of music. Moreover, music creatively has also suffered from the localisation of the production of music as there is less extent of creativity that was experienced during the composition of music (Leyshon, 2009). It also refers to the musical network and the behind the music production system, delocalisation through transformation. Moreover, production houses are more interested in revolutionizing the system through digital technologies.

2.6. Aesthetic Approaches to Musical Recording

One of the most popular aesthetic approaches to musical recording and music production has been presented by Smith (1998) which considered the lessons which have been derived from the contextual factors. It has also been argued in the study of Smith (2015) that the most interesting aspect about the approach of Smith is that historical, industrial and economic context have not been described as an end in itself while the lessons which have been derived from the contextual factors have been utilised as the condition for more comprehensive textual analysis. For instance, it has been written by Smith that the economic imperative of Henry Mancini was to produce a hit soundtrack album at Tiffany's for breakfast and encouraged the composer in order to write several main themes. Which have been developed from the Moon River which is a chart topping hit. In addition to this, Henry Mancini also encouraged the writer for the purpose of punctuating the score of the film with numerous Latin jazz and light swing numbers which might not have any structural and narrative value. However, it provided the film's best value along with the soundtrack album. This has also been supported in the study of Wakim, Smith and Guinn (2010) that Smith after the success of film which has provided the best value proceeds to the examination on how every element has been used during the entire film. In this manner, the rigour of Kalinak and Gorbman textual analysis has been combined by the approach along with the studies of pop music recordings in the film which has concentrated on the problem which is associated with the economic perspective.

On the other hand, the idealism has also been the predominant music aesthetic philosophy (Bowman 1998). It is due to the reason that the idealism has resulted in the contradictory variety of aesthetic theories which stress the symbolic, cognitive, cerebral and intellectual values of music which despite of the certain distinctions for the purpose of overlapping the neo-scholastic and realist aesthetic theories. It has been argued in the study of Petersen (2004) that the idealism aesthetic music philosophy has been one of the most dominant approaches in terms of recording the music. In this manner, there has been a rise in aesthetic orthodoxy or ideology which is dominated by idealist philosophy. Based on this ideology, the good music is considered as the art music of the high culture while the meaning of aesthetic is said to be delimited with the sound of music as directed by the score for specific works and occurs to be anticipated for its own sake. Therefore, the aesthetic distance must be maintained which apart the pure experience of aesthetic regarding the contemplation of music from any other extrinsic functions or personal uses. As an alternative, the disinterestedness of the aesthetic meaning is intended to exceed at any particular person, place or time in the favour of universal meanings of a symbolic or metaphysical kind.

2.7. The Effect of New Technologies on the Established Practices of Recorded Music

2.7.1. Production

The production of music has been one of the major aspects or the practice of recorded music. It is due to the reason that the recording and composition of music without being produced will be of no use. It has also been argued in the study of Haynes and Marshall (2018) that the production of music is among the significant practices of the music industry. In this manner, the production of music after the recording of music must be ensured. However, the rapid advancement of technology has changed the conventional production techniques within the music industry. It has been because of the reason that the production of music has gone digitalise while generating the needs for the companies to produce the albums over the internet. On the other hand, the digital platforms have been created for the purpose of ensuring the rights of these albums which avoids the music to be copied. In this manner, the online domain provides the portion of profit on each album sold to the production house or the company that has recorded the music. This has also been stated in the study of Hesmondhalgh and Meier (2018) that the production of music has been done online in the contemporary business environment while shaping the mode of operations of these music companies in the industry. Therefore, this generates the need for the companies to produce the music on online domains

instead of CDs which were used traditionally and may earn from the subscribers or sponsors instead of sales of music CDs.

2.7.2. Promotion

With the involvement of technology, the promotion of music has also been transformed and has been replaced by contemporary methods of the music industry. On the other hand, the promotion of music is considered to be the most vital aspect of the music production as it creates the awareness among people regarding what has been coming or releasing. It has also been argued in the study of Léveillé Gauvin (2018) that promotion of music is essential for the success of a music album as it generates awareness among people or listeners. It is due to the reason that the promotion engages people in terms of creating the hype of music or artists involved in the music. Therefore, people tend to listen to more music on the release date. However, the promotion methods of the music industry have been transformed over the years. In the contemporary and digitalised world, the promotion of music is done on social media or digital marketing with the help of releasing teasers of the song. The major intent behind the release of teasers or promo is to provide the touch of music which can attract the listeners in terms of listening to the entire album. This has also been supported in the study of Martinez (2018) that music companies provide promo of the music videos prior the release. In this manner, it can be determined that the promotion of music has evolved over the years changing the practices of promotion from physical posters to digital teasers or promos.

2.7.3. Distribution

The modes of distributions are also critical for the production of music album or song. It is due to the reason that the effective distribution through distribution channels can ensure the availability of albums to each and every one. It has also been argued in the study of Bégel et al. (2017) that the distribution of music ensures provision of the music video or audio to the potential listeners. In the traditional methods, the availability of music videos was low as there were few authorised distributors for the company. However, the contemporary business environment and the advancement of technology has made it possible for the companies in order to make the availability of music videos increased among the people. This is due to the purpose that the online domains like YouTube have vanished the role of distributors while reducing the reliance of companies over the distributors. This has also been stated in the study of Gamble, Brennan and McAdam (2017) that the internet has resolved the issue of distribution

channels for the music production companies and increased the availability of the music album for the company. This has been because of the purpose that making the video available on online domains makes it easier for everyone to access the song as there is availability of internet to almost everyone among the consumers. Therefore, it is essential for the companies in order to distribute the music album on digital platforms as it increases the availability of music along with increasing the access for the listeners.

2.7.4. Consumption

Over the years, the consumption of music has evolved and has been replaced by the modern practices and methods. Traditionally, the music was consumed using the CDs which were recorded and produced in amounts for the purpose of promoting the music and increasing the sales of CDs. It has also been argued in the study of Im and Jung (2016) that the traditional method for the consumption of music involves use of CDs which were purchased from the distributors. However, with the advancement of technology and rapid use of the internet, the consumption has been changed to digital platforms in which the listeners are able to listen to music from online channels. The availability of music over the internet has been assistance to people in terms of easily accessing the music album. However, the copyright issue has still been a threat for companies that are involved in the production and recording of music. This must be realised by the companies and make the consumption of music better for the people in terms of quality and price.

2.8 Transformation of Traditional Structure into Digital Structure

The section elaborates the technological involvement in the music industry and how traditional structure has changed the dynamic of traditional structure into digital structure. Such as the tradition of physical sales have gone; however, the digital sales system has been more encouraged from the past more than 20 years. With the advent of the internet, the physical sales of music DVD's and CD's are not motivated and people have stopped buying music from the stores, rather people now download music from the websites or purchase music online (Valencia, 2008). The shift in the dynamics is caused due to the involvement of the internet and digitization in one's life. In the last few years, internet users have experienced a major change through the social network system and with the digital sales of music, people buy or listen to the music online. Remodeling the music industry is one of the main issues that have been developed in the music production system. The advent of the information technologies

has brought up various changes to the production chain system. The following structure is mentioned below that expresses the clear distinction of the traditional structure with the digital structure for the music industry.

Source: (Margounakis, and Politis, 2013).

The above diagram clearly distinguishes the traditional and the digital structure for the music market. The traditional market stages are explained and start with the artist, recording labels that are both backed up by the producers. The third stage is the distributors that connect directly to the retailers and the product then delivers to the end consumers. Whereas, in the digital structure the artist records the music and labels, that goes to the manufacturers and also backed up the producers. However, due to the digitalization and internet intervention the artist is also directly in communication with the retailers and different retailers in the music industry are connected to the end consumer. That shows the connection of the artist composing music with the end consumer.

2.9 Theoretical Framework

This section provides an overview of the theories that are defined to understand the research subject. Following are the theories defined below.

2.9.1 Innovation as a Collective Action Process

As innovation is a materialization of ideas that are generated in the mind of an individual followed by institutional and social processes. Innovation is a process of rapid changes in the structure that has been already made. An innovation is a continuous process that are used to develop new inventions in the existing model and structure that are used to make the process more efficient. First step communicates the invention of a process that needs to produce for the first time. However, with the advent of technologies and time (Tschmuck, 2006). The innovation is a requirement in each industry especially in the music industry that requires a huge amount of innovative structure, processes both in the music market and the music value chain system in order to make the process better and effective. The collective actions of invention, innovation and imitation must be adopted in order to enhance the productivity in the music industry.

The third stage of imitation is important as it provides an idea towards the requirement of innovation that is needed for the music industry. The imitation process in every industry is common that leads to the motivation of innovation (Saragih, Simatupang, and Sunitiyoso, 2018). Moreover, the process of innovation brings the extraordinary profits and sales to the musical production due to the high competition each production studio is seeking competitive advantage which is an important part. The major focus of innovation is to improve the quality of a process and to engage with the target consumer more effectively.

2.9.2 The Incentive Based and Knowledge Based Model of Innovation

The common models that are used to implement the innovation are incentive based and knowledge based. As from the heading itself, it is clear that to improve and to develop effective innovative structure, promoting and communicating incentives to the people working in the organization is important to increase motivation (Saragih, Simatupang, and Sunitiyoso, 2018). The incentives are the common and most successful model that are used to develop innovation. Incentives include different remuneration systems such as project bonus, salary increment, allowances and different intangible incentives such as promotion are very critical in implementing the innovation in the company.

The other model is a knowledge based model of innovation that is a new method to implement innovation. Knowledge is the essence of the innovation process and it is also believed to be the outcome of the knowledge that practices innovation (Martín-de Castro et al., 2011). Transforming knowledge and to practice the knowledge into the practical assumptions to improve processes and to innovate the procedure is an important part. The first step is the idea generation that is the main aspect on which the innovation is based, the second step is the idea acceptance that is a complex stage as it requires research and resources needed to satisfy as it requires a high financial budget for innovation. The third step is the idea realization that includes to use different ideas and to base those ideas into huge knowledge.

2.10. Conceptual Framework

This study has focused on determining the impact of technological innovations on the electronic music sector. In this manner, the conceptual framework of the study has been provided in this section which can be determined from the figure 1. Therefore, it can be identified from Figure 1 that the independent variable of the study has been technological

innovations which includes several factors. All these factors have been treated as the independent variables in this study which include social networking sites, peer to peer file sharing, digital accessibility and digital production. On the other hand, the electronic music industry has been considered as the dependent variable of the study on which the impact of technological innovations has been measured. Therefore, the conceptual framework has been provided below:

Figure 1 Conceptual Framework of the Study

2.11 Chapter Summary

The chapter provides a detailed overview of the digital technologies and its impact over the digital music industry. A detailed literature was executed in order to provide a thorough understanding to the reader regarding the past understanding that has been published regarding the research subject. The history of the electronic music industry was started from the 18th century and the advent of technological innovations are the continuous part of the music process that enhances structure and market. The list of technological innovation factors are defined that are impacting the music industry.

Social networks and digitalization through the internet is the major advancement that has been done since the past 2 decades. Moreover, the discussion regarding delocalisation of the music industry through digital revolution has been discussed in detail. The effect of new technologies has been studied in the 4 dimensions such as promotion, production, distribution and consumption. These areas for the musical industry are crucial as the production value chain system was highly affected by the transformation of digital technologies. Furthermore, the electronic music industry has drastically changed and its structure and values chain system distinction has been studied in depth. The clear distinction was done based and in order to support that multiple theories and models were executed in detail that provides evidence on the innovation. Innovation as a collection action was done from the past centuries in the musical sector and continues to do so.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The research methodology is considered to be one of the foremost part of research that outlines the uses and applications of different kinds of research methodologies that can be used in the social sciences. Kumar (2019) has highlighted that the researches in the social sciences require to carry out the assessment using different theories and applications that can be used for gaining the accurate answers of research questions. The following chapter consists of research methodology theories and applications which are essential for a thorough assessment of the research subject. The research subject chosen for evaluation is the result of technological advancement in the electronic music industry. The chapter is based on various approaches used in the evaluation of research problems. In addition, in this respect the rationale for using certain theories was also given. Mohajan (2018) has highlighted that the application of research methodology is needed to be appropriate that can be justified and can support in achieving the research objectives. The methods that has been used by the researcher for addressing the impact of technological innovation on the electronic media industry has been provided as under;

3.2 Research Philosophy

The research philosophy explains the philosophical approach used by the researcher for answering the research questions. Snyder (2019) has presented the arguments that the use of research philosophy has the capability of presenting the essence and nature of research that is being carried out. The several theoretical approaches of research philosophy can be applied by the researchers for dealing with the research problems. However, based on the evaluation of Ørngreen and Levinsen (2017), the application of philosophy is determined on the essence of the analysis and data collection methods used by the researcher to answer the research issue. It depends on the empirical, theoretical and descriptive form of research that can be measured in the social sciences. The researcher in the following study was structured to use the qualitative nature of the data, where the researcher obtained the data using secondary sources and also analysed the data using the qualitative evaluation process. It is important for researchers to overcome the research problems and to obtain the results in this regard. The use of the theory of interpretivism is significant and applicable in this case as the researcher has followed the techniques of qualitative evaluation and has analysed the data in this way. The use of the theory of interpretivism is useful in the case of a qualitative assessment based on the Ngozwana

research (2018) where a comprehensive assessment is required and a theoretical assessment is carried out. The use of this methodology has helped the researcher to examine the effect of music technology advancement on the electronic media industry by performing a thorough evaluation and using theoretical approaches to answer the research complications.

3.3 Research Approach

The structure of research is defined and described using the research approach that is selected by the researchers for dealing with the research problems based on the assessment of Basias and Pollalis (2018). The research can be designed using several methods and structures that can be suitably used by the researchers for assessment. Despite the fact that the research approach can be used in various ways, depending on the theoretical facts and the nature of the research, the use of an inductive and deductive proceeding is usually seen in this case as alluded to in the Taherdoost study (2016). The following study is based on the assessment of the technological innovations which have been accounted for in the electronic music industry. The researcher has designed the research using the methods of inductive approach that is found to be suitable in the following case. The assessment of technological innovation in the music industry has been carried out by beginning the study using the collection of data that is gained from several secondary sources. Goldberg et al (2017) has argued that the use of inductive approach structures the research in a way where the data collection begins the research and the assessment is carried out afterwards. Aithal (2017) has highlighted that it is one of the most effective methods that can be used for assessing the qualitative investigations. Therefore, the use of this approach is found to be feasible for the researcher for investigating the importance of music technological innovation accounted in the electronic media industry in detail.

3.4 Research Design

The design of the study outlines the purpose of the evaluation chosen by the researcher for analysis. Goldberg et al (2017) argued that the choice of research design could be dependent on the essence of the subject and the methods that researchers have designed for evaluating research problems. In the form of the following study, the researcher has several choices to consider in order to determine the effect of music technical progress on the electronic media industry in order to obtain the answers of the analysis. Ørngreen and Levinsen (2017) has highlighted some of the major types of research designs such as qualitative, quantitative and mixed methodology of research. The selection of research design enables the different

kinds of methods to be used by the researchers for collecting and analysing data for investigation. Taherdoost (2016) has argued that these methods can be used in different ways in terms of several methods of data collection and analysis. The use of qualitative design is carried out in the following research, which has contributed to the analysis of the use of technological innovations for the electronic media sector. This approach has allowed the researcher to implement and analyse data from different sources in order to achieve the study objectives

3.5 Data Collection Methods

Data collection techniques are the fields that researchers have used to gather data for study. . Dźwigoł and Dźwigoł-Barosz (2018) argued that the data collection process is focused on the essence of the evaluation and the viability of the study to be carried out. Here, the researcher has made it possible to use secondary data collection methods using various online sites, journals, papers, books and news storeys providing data on technological advancement in the music industry. Basias and Pollalis (2018) argued that researchers may face certain difficulties in the use of secondary data collection methods, such as the availability of research articles or the reliability of the source chosen for evaluation. The researcher has followed papers and publications that are reputable and are part of the latest publishing years.

3.6 Method of Data Analysis

The method of analysis is based on the nature of data collection and the design of research that has been adopted by the researcher for assessing the topic of research. Basias and Pollalis (2018) has argued that it is necessary for the researchers to align the methods of data collection analysis that can be used for interpreting the results and gaining the appropriate results of the research to be applied in the future. According to the evaluation of Ørngreen and Levinsen (2017), many methods of analysis can be used by researchers to fix research problems. However, the following analysis is focused on the qualitative aspect of the data used to determine technical developments in the music industry. . As the researchers have come to a conclusion that the procedure of secondary data collection, the most effective approach to be used for data analysis is the content analysis tool used by researchers to fix research issues.

3.7 Ethical Consideration

The researcher has precisely stuck to the regulations of ethics and ensured that the study was focused on ethical methods of data collection and analysis where the analysis follows neutrally without prejudice. The researcher adopted techniques for gathering and using data that did not affect any individual or organisation. The use of data has only been used for measurement purposes and has been discarded. The research work is original and has not been copied from someone else's work. The researcher used papers that are accurate and are part of the current years of publications to ensure the reliability of the results.

3.8 Research Limitations

The researcher was confronted with limitations in terms of limited time and cost for primary data collection and the accumulation of sources of literature which were available on the internet. Due to manual Content Analysis being done there is a chance of finding human error.. There is a chance of results being altered due to the different fluctuations in Political, Social , Economic and Technical factors of the country which results in a major drawback of the research.

3.10 Chapter Summary

The chapter outlined the methods to be used by researchers to answer the research issue. Interpretative methodology has been used by the researcher in order to get meanings out of the inductive approach which has been used to address research issues. In order to acquire data, a secondary qualitative data collection method is utilized as the data gathering method.

CHAPTER 04 – ANALYSIS AND DISCUSSION

4.1 Introduction

The main purpose of the analysis is to examine the use of technological advancements in the electronic music industry. Since the data obtained for this study are qualitative and are obtained from secondary sources, content analysis is the methodology used to analyse the data. . This chapter of the study mainly focuses over the analysis of collected data along with the discussion over the analysis and general discussion that is based over the objectives of the study. The following chapter is mainly divided in two sections, in which the first section of the study

underpins the analysis in which different themes are developed based over the studies that are used in the study. The themes that are covered in the study are related to the overview of evolution of electronic music in terms of creating music and its marketing along with its importance in context of innovation and advancement in technology. The study also covers the significance of technological innovation over the electronic music industry and its effect over new technologies on the practices of music that are already established. The second section of the study entails the discussion on the basis of objectives of the study.

4.2 Content analysis

4.2.1 Conceptualising history of evolution of electronic music in terms of music creation and marketing

The studies that are conducted previously analyses that sound production was invented from the 19th century in which there is a great evolution with respect to the practices followed in the studio as well as recording of the musical number. They are evolved and most of it are reshaped which impacts the industry dealing with music recording (Leyshon, 2009). With this evolution, by the start of the 21st century electronic music is present everywhere in the world as it is present in the massive festivals that are also known as multi-day like electric daisy carnival etc. The study have discussed that there is a complex history of electronic music with respect to its creation and marketing from obscure avant-garde art music. By analysing the data, the findings shows that networking system and its sharing mainly impacts the professional studies used for recording music (Pras, Guastavino, and Lavoie, 2013). In addition to this it is also analysed that there is a direct impact for digitalization in the music industry which leads towards utilization and evolution of new innovative technologies that are used in order to produce as well as market the music (Frid, 2019). Furthermore, there is an experience which needs to fix the artwork that can be compared with the live music shows is considered to be quietly different along with production of music being digitized now.

It is analysed from the previously conducted studies that are used in the study that music is considered as one of the experiences that is ancient for human beings timely. There is a great revolution in the industry of music which involves its marketing and making by focusing over technology as technology is the main aspect that has evolved the music industry. The study has highlighted that the technological interventions are mainly from the end of people that are running the music industry along with the way that is used for sharing the music from previous 150 years (Andersen, and Frenz, 2010). As per findings, it is also evaluated that the way which is used for sharing the music is considered to be common as well as easy for the people present in the world. The study by Holt, (2014) shows that electronic music is said to be similar to its name as it is known as the music that is made with the help of electronic instruments. This category is best understood with the help of contrasting with the different categories of acoustics and traditional music in which jazz, classic and folk is included. However, it is concluded from analysing the data that the musical tradition in which jazz, classical and folk

are included the digital technology is mainly used for recording of music along with amplified use of microphones which is distributed all over the internet. It is considered to be very difficult for distinguishing the difference among non-electronic and electronic music that originates from the 21st century.

The study has highlighted the concept of electronic music as the music which is evolving by the 20th century as it has started using computing, digital technology and electronics. The 20th century is considered as the century of evolution as in this century musicians, inventors and pioneer engineers have built such machines that produce music in different ways which are previously not even imagined (Salo, Lankinen, and Mäntymäki, 2013). The study by Yue, (2011) shows that there explosion of creativity and advancement in technology is observed in late 1960s which is the main reason for popularity. This year is known as the year of advancement which have led towards technological advancements and results in formulation of advancement in music and its branches. Data shows that there are several influential musicians of that time that have formed electronic dance music that is particularly known as Italo-disco. It originated in Germany and spread all over the world. Germany is regarded as the main hub for music experimentalism in the time of 1960s and 1970s which leads towards the field of electronic music (Lerch, 2018). There are several groups that work over electronic instruments in order to perform transformation over rock music in different forms which inspires a number of people all over the world that can experience music and technology collectively.

It is investigated by the study of Dolata, (2011), that by the middle of 1970s, disco music is considered to be at peak period that is used for popularity that concludes that electronic synthesizers are mainly combined along with the drum machines in order to create friendly style for the music by which popularity can be gained by the world. The United States has experienced a particular drop for popularity in the start of the 1980s that has been fueled by racism and homophobia. By the middle of 80s, there were several improvements in the technology of the music industry which is considered as the main reason for new developments. Findings show that revolutionary music is being produced by the people individually or in groups that came to be known as sub-genre for electronic music that is known as techno. They have started using synthesizers which are used producing new types of music which have transformed to be a DJ (De León, and Gupta, 2017). Only from some of the years, the sound have been started for being heard in Europe that chronicle the start of the raves. There is popularity that has gained in the late 80s as well as 90s which began for further involvement in different subgenres which are like house music as well as drum and bass (Ariniello, 2010). The use of new technologies has something that has been encouraged in the music industry and from the past century the advancement was done technologically to produce music and to share music within online networking system

It is evaluated that there are several improvement for the computers as well as development in the internet that have started for having main impacts over the music industry; artists that easily able for getting the music heard which develops different types of sound over new software(Pras, Guastavino, and Lavoie, 2013). The study by Dolata, (2011) shows that

since the inception of the music industry, one factor that is considered to be a constant factor has been observed and noticed in the music industry is the technological revolution and the formalization of innovation to update the music recording industry. By the time there is a great increase in popularity of electronic music festivals in which artists' present amazing music to their fans which can be made by modern technology (Yue, 2011). Moreover, the technology has been used as a promotional tool and to market the music industry and artists that are creating music and giving successful phases to the musical system. It is evaluated that new styles of electronic music are observed and they are appreciated because there is a role of technology in it by the years as well as there are new subgenres that are created and known as music by modern technology.

4.2.2 Significance of innovation and technological advancement for music creation and marketing

It is analysed that there is importance of technological advancements for creation and marketing of electronic music, which have revolutionised which expresses music as well as share the music all over the world. The Internet has mainly arranged the industry of music that successfully organised the system of value chain for music. Findings of the analysis shows that technology has major impacts over the change in the system of music. There are systems of piracy, which have socio-cultural impact as well as digital stream ripping, piracy of mobile music and others. It is analysed from studies that are previously used in the study that technological changes means for increasing and distributing music industry revenue (Salo, Lankinen, and Mäntymäki, 2013). From the last century, the music industry revenue has constantly increased and now in the modern entertainment industry, there are million dollar businesses that have been generated via music. As per findings technology mainly means that it is said to be very easy for having a studio on the laptop which leads towards enormous increase for the amount of music that is made as well as released. This is considered as the main problem which has become the reason to find good music among all averages for bad types of music (Leyshon, 2009).

Apple logic pro x, Ableton Live, Pro-Tools, and FL Studio are some of the most famous DAWs in the electronic music world. The DAWs allow beat makers to record external midi, make raw beats from using downloaded samples, additionally through the playback of highly functional analog and virtual instruments. These applications can be bought online which comes with complementary built in effectrix, plenteous amounts of synthesizers and beat making drum programmes which may help in creation of complex sounds. There has been a lot when it comes to creation of music as these days there is a trend of being a bedroom producer, a term given for people who are able to create sounds with the help of a computer, keyboard and a mouse where in the computer obviously has an installed DAW over it. These producers can make beats over the DAW without having the need to produce on any external synthesizers or MIDI devices. Apple's Garageband is an entry level starter software which is meant for beginners and the others for professional standards. Some of the DAWs come in suites where record producers have made samples ready for production through these DAWs. The DAWs are generally licensed for one single purchase and tend to deliver sophisticated

song writing standards in almost any setting. There is also a possibility of using high end plugins which can be bought separately over the third party websites. Some of the most famous companies are : Native Instruments, (Germany), U-Audio (USA), individual artist plugins like Nicky Romero – Kickstarter, Dada Life – Sausage Flattner. DAWs also have the capability of operating highly visual and they can as well incorporate a no. Of graphical representations of audio parameters to support editing and mixing. Therefore, generally the DAWs have an inbuilt mixer for understanding the track at a basic level. Generally, these tracks later on are produced on high-end mixing consoles like Duality SSL in order to generate the maximum output of their competencies as per the industry standard requirements which are found to be in the professional music studios. As explained by Zimmerman et al. (21), DAWs are a result of a new paradigm for interaction with new programming languages, interactive designs, techniques and diverse skills of participants. One of the most difficult techniques which is possible as a result of well working DAW is automation and side chaining of musical rhythms. It involved editing the points that constitute the graph, locating an existing one and alteration of coordinates to reflect the desired level of effects. All of this is possible in the DAWs due to point estimation in automation graphs. One of the most important innovations which has been done in DAWs is the speech output. The user with the help of a MIC connected to the midi output of a computer can record his own voice in the DAW and a result the user can manipulate his speech, edit and then finally use it in songs. Therefore, the modern DAWs are trying to expand and compete with traditional ways of using and making beats.

It is analysed that technological innovation has been seen in the music revolution, more importantly the restrictions in the music system reforms the file sharing network. There are several cons of technology to specific groups of people as their income has been destroyed, like songwriters. The culture has been transformed that the reason behind this is that people have to bother paying when there is free software on the sites that are channeling profits to their writers (Leyshon, 2009). The study by Dolata, (2011) that is used in the study previously shows that there is a large number of production houses and the digital media studios has been developed and established to produce music which exhibits its importance. It is concluded that the companies that are well-established and are operating in the music industry were hesitant to enhance the changes that are brought up by the technology and internet. It is concluded from the studies previously used that technology is considered to be great for such people that want to develop things whereas there are several free videos which help in guiding that are mainly due to the technology. Filtering out the dross is considered as the main problem for consumers which mainly leads them to the software as they are easy and portable. The consumers should be free for deciding what is required by them.

This makes necessary for the producer and songwriter to be aware of all the aspects as well as they should be aware of getting syncs. This is justified by the study conducted by Frid, (2019), the music industry but the participants such as music producers, directors, recorders, singers and the music business has been influenced by the implementation of technological innovation. The music industry has drastically changed such as innovation in the music that are produced, performed, distributed, and consumed.

Music is said to become ubiquitous by the help of technology because there is a system channeling process that is appreciated by the people. Basically music is played for providing the impression over some events that are going on. In addition to this it is evaluated from the study by, (Lerch, 2018) that the sound generation and sound modifications are also influenced by technological advancement. The most significant technological advancement that has been done is based on the possibility to record and distribute music on a large scale system. Social media is also known as the part of technology which also plays a major role in development and marketing of music.

4.2.3 Evaluating the impact of technological innovation on electronic music industry

It is evaluated as technology has mainly impacted every aspect of life, it has also influenced the music industry. The music has become more innovative and there are different techniques for producing, performing, consuming and distributing the music to the consumers. In addition, there are modifications in the music that are mainly impacted by the advancement in technology. Moreover the previously used studies show that the taste of consumers have also changed with the time. It is evaluated from the data collected for the analysis that the most important technological advancement which is done by the innovation of music relies over the recording and distribution of the music over a large system of scale (Frid, 2019). Lench (2018) have discussed the disc and the other set of equipment produced during the technological revolution that has impacted the music industry. The era of music has changed due to technology whereas the recording techniques that are used for recording of music have mainly enabled the process of amplification in microphones along with the playback over speakers. This is mainly introduced after the First World War whereas both better recording quality along with the amplification is motivation for the customers to get devices for listening to the music at home which was not possible before the evolution of music (Ariniello, 2010). The analysis of data shows that electrical recordings have also influenced the music era and the music industry have started producing music with high quality which leaves a great impact over the wide range of listeners. The techniques used in electrical recordings mainly allows the placement for microphones away from the sources. By the help of electrical recording techniques the placement for microphones is allowed from the source which captured a natural room for reverberation which results in a metaphor. The study concludes that professionals are encouraged to drive through technological innovation and to enhance digitalization in the studios.

The study by (Pras, Guastavino, and Lavoie, 2013) shows that recording composing methods were outdated and that digital technology has changed the way of producing music. However, with the implementation of digital technology, a major requirement of budget is there and to cater that music industry conducts a great amount of business. However it is concluded that the musical work is enhanced by technological advancements and is considered as culmination of different processes in which many people are involved and takes place over a long span of time (Pras, Guastavino, and Lavoie, 2013). So, technological changes mean increasing and distributing music industry revenue. Nowadays, technology has made a radical change in the music system due to which the music industry has drastically changed such as

innovation in the music that are produced, performed, distributed, and consumed. However, technological advancements have several positive benefits for the music industry. It is concluded that there are different innovations due to technological advancement in the industry of music. DJs are considered as the result of these innovations. Modern performers of music are trying to break the boundaries with the help of re-inventing the live performance. Other results of technology includes touch screen technologies, Smart controllers and live streaming and VR viewing of music events

4.3.4 Assessing the effect of new technologies over established practices in recorded Music

It is observed from the studies previously used in this study that technology is surprising the world as it has various impacts over almost every aspect of life. The way by which music is altered, preserved, performed, composed and mainly recorded has been changed. The musical sounds are not on the same level that have been shaped by technology. In recording of music, production of music also plays a major role and the main reason lies behind this is that composition and recording of music without getting produced would be of no use. The study by Haynes and Marshall (2018) that is used in the study previously shows that music production is considered as one of the most important practices of the music industry. It is evaluated that it should ensure the production of music after its recording by the technological advancement in the music industry (Martín-de Castro et al., 2011). However it is highlighted from analysis that the production of the music is mainly affected by the advancement of technology in positive terms. The availability of music over the internet has been assistance to people in terms of easily accessing the music album. It should be realised by the companies as well as making the consumption of music better for the people in terms of quality and price.

There is an evolution of technology which results in promotion of music which has transformed the contemporary method used in the music industry for recording and transforms it into modern methods. Whereas it is evaluated, the promotion of music is considered to be the most vital aspect of the music production as it creates the awareness among people regarding what has been coming or releasing. The study by Léveillé Gauvin (2018) shows that promoting music is considered as the most important for the success of a music album that generates the awareness for the listeners. Technological advancement is considered as the reason for promotion of music for creating the hype of music or artists involved in the music. It is also evaluated that there are different modes of distributions which are considered to be important for producing the music album and song (Saragih, Simatupang, and Sunitiyoso, 2018). The main reason behind this is that effective distribution by the help of channels mainly ensures the album availability. It is explained in the study by Bégel et al. (2017), previously used in the study that technology also impacts the distribution of music which ensures the provision of music audio or video for their potential listeners. It is concluded that the availability of music videos was low in traditional methods as there were few authorised distributors for the company. However, it is evaluated that the contemporary business environment along with advancement of technology has several positive impacts which is possible for the companies in order to make the availability of music videos increased among the people (Valencia, 2008). However, with the advancement of technology as well as rapid use of the internet, the

consumption has been changed to digital platforms in which the listeners are able to listen to music from online channels.

4.3. Discussion

4.3.1. To examine the history of evolution of electronic music over the years in terms of music creation and marketing

The first objective is associated with examining the history and evaluation of electronic music over the years. The findings have suggested that sound production was invented from the 19th century in which there may be an outstanding evolution of the practices followed inside the studio as well as recording of the musical variety. It has also been analysed from formerly performed studies, track is considered as one of the most ancient forms of music creation for human beings. Moreover, there is a super revolution inside the industry of music which includes its advertising and making with the key focus over the technology which is also the main aspect that has developed the song industry. According to Leyshon (2009), the technological interventions are in particular from those individuals who are responsible for running music enterprises in conjunction with the way this is used for sharing the track from preceding 150 years. It has been analysed that it is considered to be very difficult for distinguishing the distinction among non-electronic and digital music that originates from the 21st century.

The findings of the study have shown that the idea of digital music is pertaining due to the fact that the music has started evolving in the 20th century because of the usage of computing, virtual generation and electronics. The 20th century is taken into consideration because of the century of evolution as on this century musicians, inventors and pioneer engineers have built such machines that produces the music by using different kind of methods which might be previously not even incorporated (Salo, Lankinen, and Mäntymäki, 2013). The findings can be justified by the study of Yue (2011) that showed that there has been an explosion of creativity and advancement in technology that was discovered in the 1960s and it has become the primary cause for popularity. This is referred to as the year of advancement that has led the music world closer to the technological improvements and consequences in the system of development in song and its branches. There are numerous influential musicians of that time that have fashioned digital dance music. Many of it has originated in Germany and unfold everywhere in the international arena. Germany is seen as the principle hub for track

experimentalism inside the time of Sixties and Seventies which leads toward the field of electronic music (Lerch, 2018). There are numerous agencies that work over digital devices so that it will carry out transformation over rock tune and it has been one kind of bureaucracy which evokes wide variety of human beings all around the international music world which could revel in song and technology collectively.

It has been evaluated in the findings of the study that there are numerous improvements found in the computer systems in addition to improvement within the internet that have commenced for having foremost influences over the music enterprise (Pras, Guastavino, and Lavoie, 2013); artists that without difficulty capable for purchasing the music heard which develops special sorts of sound over new software program. It has also been identified in the study of Dolata, (2011) that because of the inception of the music enterprise, one factor that is taken into consideration has been the technological revolution and the formalization of innovation to update the track recording industry. By the time, there has been an ultimate growth in popularity of digital music festivals in which artists present tremendous songs to their lovers which may be made via modern technology (Yue, 2011). Furthermore, the generation has been used as a promotional tool and marketplace for the music industry which might be growing and giving success levels to music creation. Hence, the findings have been evaluated that new kinds of electronic music are determined and they are favoured because technology has provided genres as well as subgenres that are created and known as tracks within the modern and advanced generation.

4.3.2. To analyse the importance of innovation and technological advancement for the creation and marketing of the music

The second objective of the study is associated with analysing the importance of technological advancements for the creation and marketing of music. It has been analysed in the findings of the study that there's importance of technological advancements for introduction and marketing of music in a digitalised world that have revolutionised the music tracks as well as spread the popularity of music everywhere in the international arenas. It has also been found that the technology has particularly organised the industry of music that has also influenced the system of price chain for the track. Technology has principle affects over the exchange within the music industry. However, there are systems of piracy, which have socio-cultural effects in addition to virtual circulation and piracy of songs through different mediums. It has also been found in the findings of the study that technological adjustments are the ways of increasing and

dispensing music world's sales (Salo, Lankinen, and Mäntymäki, 2013). From the last century, the music enterprise revenue has continuously elevated and now inside the contemporary leisure industry, there are million dollar businesses that have been generating revenue through music. Technology has become an approach that has provided different platforms for listening to music such as on the laptop which leads toward a sizable boom in the income of the music industry that is made right after the music is launched.

The music industry has been repositioned by the internet in which the technological advancements have led to numerous innovations. It has also been contended in the study of Tang and Lyons (2016) that subsequently with the appearance of streaming services, the reformation of the value chain has speeded up. The consumption of music has been lifted to entrance from the ownership as the roles of consumers and creators have distorted, there has been disruption in the money flows and traditional revenue base of the industry. Bearing in mind the advancement of technology, the all-inclusive music industry has shaped for the betterment while providing ease to the consumers in terms of getting access to music much easier. However, with the swift revolution of this music industry, most of the companies which have been leading the industry quiet a time ago have been not able to implement themselves which has disappeared their being from the digitalised music industry. Previously, the music industry was an independent for of art though, in the late 19th century, the imitation of sound alongside broadcasting and recording malformed the industry of music along with numerous greatest labels and companies entering the industry have billions of soundtrack performers (Pras, Guastavin and Lavoie, 2013). These recordings of the music were sold in CDs while turning the music industry into a billion dollar venture. Nevertheless, meanwhile the progression of technology, the reproduction and recording of music vanished with the introduction of technology and the internet with online streaming services. It has also been argued in the study of Hviid, Izquierdo Sanchez and Jacques (2017) that with the advancement of technology, several digital companies have captured the market of the music industry while making the traditional production and recording companies vanished. In addition to this, the other aspect is associated with the introduction of several electronic instruments which have played a crucial part in terms of revolutionising the music industry to electronic music industry.

4.3.3. To analyse the impact of technological innovation on electronic music industry

The third objective has been associated with identifying the impact of technological innovation on the music industry. In addition to this, the additional feature is linked with the

introduction of numerous electronic instruments which have played a crucial part in terms of transforming the music industry to electronic music industry. These tools have played a vital role for creating essential development in the music and make the final album more appealing. This has also been stated in the study of Lerch (2018) that the assistance of various instruments has transformed the entire music industry with the contemporary practices and methods to produce the music. It has also been found in the research of Parc and Kawashima (2018) that the prompt digitalisation of the music industry has made it problematic for most of the conventional companies operating in the music industry to withstand their business. It has been due to the reason that the companies previously used to sell CDs after recording the music which has now been malformed into digital and online flooding through the internet. Nevertheless, these companies would not have sufficient competences or capitals over which they could transform their entire procedure of business. This has also been stated in the study of Guichardaz, Bach and Penin (2019) that companies lack the ability to digitalise the entire process of music production and recording which has made these companies vanish from the music industry.

The findings have identified that the online approach of music has revolutionized that expresses music and shares music worldwide. Internet reformation from the 90's is of the successful technological innovation that has been seen in the music industry. The music industry has radically altered such as novelty in the music that are produced, performed, distributed, and consumed. Besides, the sound cohort and sound alterations are also influenced by technological advancement. The most significant technological advancement that has been done is based on the possibility to record and distribute music on a large scale system (Lerch, 2018). In addition to this, social media networking sites are the major technological advancement that has been seen in the 21st century. The social media platforms such as Facebook, YouTube, Daily motion and other entertainment websites reach out to a mass number of people to spread music. On the other hand, Digital distribution of music through peer to peer file sharing is now a common process in the digital era and the technological peer to peer sharing of files has increased the file sharing patterns for music. The tendency of transferring music has transformed and people are buying music or listening to the music from the social media platform. The hi-tech revolution in the communications and information technologies has been transformed that associates the micro-electronics plus the advent of digital technological patterns has been shifted and the economic status of the music has also been changed (Andersen, and Frenz, 2010).

Moreover, it has also been identified that companies are accessing the tactics to engage with the people and to transport the new recorded music in less time (Frid, 2019). The digital media has also delivered people to appear in online concerts and to participate in the live music shows.. People from all age groups are involved in listening to music and it is now a daily part of mass people's lives. Therefore, accessibility was one of the main issues that were solved via digital accessibility through the internet. Before the internet revolution each individual has to purchase the DVD's or CD's, which is not an option for all the people. An excessive amount of competition in the music industry has been observed for over a time and digital tools influence the running of the music. The prolonged opportunities of the versioning has also impacted the recording companies and content owners may design the service menus and could charge based on the service in the music industry (Foga, and Montague, 2000). Professionals are encouraged to drive through technological innovation and to enhance digitalization in the studios (Pras, Guastavino, and Lavoie, 2013). Recording composing methods were outdated that digital technology has changed the way of producing music. However, with the implementation of digital technology, a major requirement of budget is there and to cater that music industry conducts a great amount of business.

The music industry has been radically transformed by software and people experiencing the development of software that determines the interest and process of change through innovation. Delocalisation in the recording studios deals to mitigate the restrictions that are faced during the productions of music. Moreover, music creatively has also suffered from the localisation of the production of music as there is less extent of creativity that was experienced during the composition of music (Leyshon, 2009). It also refers to the musical system and the behind the music production system, delocalisation through transformation. Besides, creation houses are more attentive in transforming the scheme through digital technologies. In addition to this, the production of music has been one of the major aspects or the practice of recorded music. It is due to the reason that the recording and composition of music without being produced will be of no use. It has also been argued in the study of Haynes and Marshall (2018) that the production of music is amongst the noteworthy practices of the music industry. In this manner, the production of music after the recording of music must be ensured. However, the rapid advancement of technology has changed the conventional production techniques within the music industry.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The following chapter has highlighted the conclusion of research and has mentioned the key points that have been gained as a result of the research. The chapter comprises the summarised findings, conclusion, recommended strategies for the future and the implications of research for the future researchers. The chapter has highlighted the major points of arguments and statements that are gathered by the researchers for assessing the impact of music technological innovation within the electronic music industry.

5.2 Summarised Findings

The researcher has designed the research using the objective of assessing the impact of technological innovation on the electronic music industry. One of the major issues that was under consideration was the evolution of rapid digitalisation of the music industry that has made several changes and has made it challenging for most of the conventional companies operating in the music industry to sustain their business. The rapid changes within the industry has been observed in the current time as the people used to buy CDs and DVDs for recording and listening to music. However, now it has changed completely within the current time. It has been observed that the rapid development of internet and technology has been captured by several companies in the music industry while making digitalisation as the opportunity. The researcher has aimed to evaluate the history of the electronic music industry, importance of innovation in this field and analysing the significance of technological innovation on the electronic music industry.

The researcher has found that the use of technological innovation in the music industry has made several revolutions in terms of dealing with the interventions of music and making it available easily for all the consumers. The researcher has achieved the objectives by highlighting the issues that are caused to the common music companies due to the reason of technological innovation. Additionally, the methods of innovation have also been considered to be an opportunity for the businesses to deal with the methods of better sales and increased profitability in this regard. The researcher has found that technology has made a radical change in the music system. Such as piracy system, socio-cultural impact, Digital stream ripping,

mobile music piracy and various others that have made it difficult for the businesses to deal with the music changes.

The factors that have been highlighted by the researcher that impacts the electronic music sector are the presence of social networking websites, peer to peer file sharing, digital accessibility and the digital production that can be observed by the researchers for dealing within the current industry. The researcher has also highlighted that there is a massive impact of this technological innovation on the music industry that can be observed within the methods of production that is observed within the industries, the promotion that is observed in this regard, the methods of distribution that is present after the technological change and the consumption rate of the music that has been replaced with the modern practices and methods of innovation.

5.3 Conclusion

The researcher has achieved the research aim and objectives and has highlighted that the use of technological innovation has been making a remarkable change within the music industry in terms of production, marketing and the consumption methods of music. It has been concluded that the methods of technological change is considered to be a major opportunity for the businesses these days as it makes things easier for the companies to address and maintain better performance of the organisations and the music industry. The researcher has concluded that the use of this technological innovation has not only increased the performance of the music industry but has also increased the capability of the business to run and adopt better profitability. The findings have provided the assessment that innovation is a requirement in each industry especially in the music industry that requires a huge amount of innovative structure, processes both in the music market and the music value chain system in order to make the process better and effective. It is imperative for the business to adopt the technological innovation that can be used by the businesses to deal with profitability and success along with a better and improved system of operations.

5.4 Recommendation

After the completion of research it has been recommended that the use of technological innovation has been one of the highly favourable aspects within the music industry that has made revolution and growth within different industries as well. The researcher has

recommended that the use of this innovation is not only effective for the business to run in an effective manner but will also be used as a strategy for growth in the future. Therefore, it has been recommended that the use of this technology is essential for the production methods of music that is necessary to be adopted by the music companies to gain more profitability. Moreover, it is recommended for the firms to bring about the use of innovation that can be used as a feature for promoting the music in a better way that can reach to the target consumers. It is also recommended for the music companies to use social networking websites that can also be used as a productive factor for growth and innovation.

5.5 Future Implications

The current research is based on the methods of technological innovation within the music industry using the methods of secondary sources, whereas the future researchers can design the research using the primary data collected from various music developers and companies. The case of particular companies can also be used for assessing the research case.

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6. APPENDIX

Appendix 1 : Table at 2.8

