OCCUPATIONAL FRAMEWORK

SECTION J: INFORMATION AND COMMUNICATION

DIVISION 60: PROGRAMMING AND BROADCASTING ACTIVITIES

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ABSTRACT

An Occupational Framework (OF) is the outcome of Occupational Analysis of identifying the work scope of the occupational areas in terms of competencies. It is used to analyse skilled human resource competency requirements for the sector. The development of the Occupational Structure is a preliminary process in developing relevant National Occupational Skills Standard (NOSS). The NOSS in turn will be developed to be used as the basis to conduct skills training and certification of competent personnel. This document is divided into five chapters, the first two chapters being an introduction and industrial overview highlighting the definition and scope of the sector, the current analysis of the local sector and its skilled worker requirements, government bodies and development plans supporting the growth of the industry. The third chapter explained the methodology used in OF development such as document analysis and brainstorming sessions. Workshops were held to get a better understanding of the organisational structure, job titles and main activities of the specified positions. The final chapters presented the findings of the OF that is translated into the Occupational Structures, levels of competencies and critical job titles. These findings will in turn be the basis of reference for the development of the NOSS document. The NOSS will serve not only as a reference of skills standards for certification but also as a guide to develop the skills training curriculum. The OF for Programming and Broadcasting Activities is based on the Malaysian Standards Industrial Classification 2008 (MSIC 2008) under Section J: Information and Communication Activities, Division 60: Programming and Broadcasting Activities. This industry represents one of the most potential sectors in the economy and a key player in the next industrial revolution: Industry 4.0. The total number of job areas identified is 9 and a total of 91 job titles identified as relevant to Industry 4.0 (I4.0). In order to develop the OF on the Programming and Broadcasting Activities, all information related to the aforesaid group was gathered through document analysis, survey and focus group discussions with industry experts.

ABSTRAK

Kerangka Pekerjaan adalah hasil Analisis Pekerjaan untuk mengenal pasti skop kerja kawasan pekerjaan dari segi kecekapan. Ia digunakan untuk menganalisis keperluan kecekapan sumber manusia untuk sektor ini. Pembangunan Kerangka Pekerjaan adalah proses awal dalam membangunkan Standard Kemahiran Pekerjaan Kebangsaan (SKPK) yang berkaitan. SKPK pula akan dibangunkan untuk digunakan sebagai asas untuk menjalankan latihan kemahiran dan pensijilan kakitangan yang kompeten. Dokumen ini dibahagikan kepada lima bab, dua bab pertama menjadi pengenalan dan gambaran industri yang menjelaskan mengenai definisi dan skop sektor, analisis semasa sektor tempatan dan keperluan pekerja mahir, badan-badan kerajaan yang terlibat dan pelan pembangunan yang menyokong pertumbuhan industri berkaitan. Bab ketiga menerangkan metodologi yang digunakan dalam pembangunan Kerangka Pekerjaan seperti analisis dokumen berkaitan dan sesi sumbang saran. Bengkel diadakan untuk mendapatkan pemahaman yang lebih baik mengenai struktur organisasi, tajuk pekerjaan dan aktiviti utama jawatan yang ditentukan. Bab-bab terakhir akan membentangkan penemuan Kerangka Pekerjaan yang diterjemahkan ke dalam Struktur Pekerjaan, tahap kompetensi dan bidang kerja kritikal. Penemuan ini akan menjadi asas rujukan untuk pembangunan dokumen SKPK. SKPK akan bertindak bukan sahaja sebagai rujukan piawaian kemahiran untuk pensijilan tetapi juga sebagai panduan untuk membangunkan kurikulum latihan kemahiran. Aktiviti Pemprograman dan Penyiaran adalah berdasarkan Klasifikasi Perindustrian Piawaian Malaysia 2008 (MSIC 2008) di bawah Seksyen J: Maklumat dan Informasi Bahagian 60: Aktiviti Pemprograman dan Penyiaran. Industri ini mewakili salah satu sektor yang paling berpotensi dalam ekonomi dan pemain utama dalam revolusi industri seterusnya: Industri 4.0. Jumlah bidang penjawatan yang dikenalpasti adalah 9 dan sejumlah 91 pekerjaan yang dikenal pasti berkaitan dengan Industri 4.0 (I4.0). Dalam usaha untuk membangunkan Kerangka Pekerjaan bagi Aktiviti-aktiviti Pemprograman dan Penyiaran, semua maklumat yang berkaitan dengan kelompok tersebut telah dikumpulkan melalui analisis dokumen, tinjauan dan perbincangan kumpulan fokus dengan pakar industri.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

3R	Reading, Writing, Arithmetic
ABU	Asia-Pacific Broadcasting Union
ACE	Access, Certainty, Efficiency
AI	Artificial Intelligence
AIB	Association for International Broadcasting
ACE	Access, Certainty, Efficiency (formerly known as MESDAQ market)
ASO	Analog Switch Off
ASTRO	All-Asian Satellite Television and Radio Operator
CBT	Competency-Based Training
CIIP	Common Integrated Infrastructure Provider
COL	Critical Occupational List
DESCUM	Development of Standard and Curriculum
DOSM	Department of Statistics Malaysia
DSD	Department of Skills Development
DTH	Direct To Home
DTT	Digital Terrestrial Television
EU	European Union
FGD	Focus Group Discussion
FTA	Free to Air
GDP	Growth Domestic Product
HD	High-Definition
HDTV	High-Definition Television
iTV	Independent Television
IPTV	Internet Protocol Television
ILMIA	Institute of Labour Market Information and Analysis
IR 4.0	Industrial Revolution 4.0
JENDELA	Jalinan Digital Negara
KPI	Key Performance Index
MASCO	Malaysia Standard Classification of Occupations
MCO	Master Control Operator
MEA	Ministry of Economic Affairs

MED	Ministry of Entrepreneur Development
MFA	Malaysian Association Franchise
MCMC	Malaysian Communications and Multimedia Commission
MCO	Movement Control Order
MIDA	Malaysian Investment Development Authority
MITI	Ministry of Industry and International Trade
MoHR	Ministry of Human Resources
MOSQF	Malaysian Occupational Skills Qualification Framework
MQA	Malaysia Qualification Agency
MQF	Malaysia Qualification Framework
MSC	Malaysian Skills Certificate
MSIC 2008	Malaysian Standard Industrial Classification 2008
NOSS	National Occupational Skills Standard
OC	Occupational Competencies
OD	Occupational Description
OECD	Organization for Economic Co-operation and Development
OF	Occupational Framework
OS	Occupational Structure
P2P	Peer-to-peer
RF-RMF	Radio Frequency-Electromagnetic Field Emission Monitoring Field
RPA	Recognition Prior Achievement
RTM	Radio Television Malaysia
SKPK	Standard Kemahiran Pekerjaan Kebangsaan
SDG	Sustainable Development Goals
SME	Small Medium Enterprises
SOP	Standard Operating Procedure
TV3	Sistem Televisyen Malaysia Berhad
TVET	Technical and Vocational Education and Training
VoD	Video on Demand
VO	Voice Over
VOSOT	Voice Over Sound on Tape

GLOSSARY

Airwaves	The medium through which radio or television signals are transmitted. Airwaves are also known by the term's spectrum or the electromagnetic spectrum. Airwave signals travel through the air, unlike the signals transmitted by telephone or cable wires.
A.M	The amplitude modulation, A.M. broadcasting signals, is considered the standard radio band; meaning the amplitude of a carrier wave which is varied according to certain characteristics of a modulating signal.
Anchor	A person who presents a news bulletin from a television studio, usually on a regular basis. See also, *newsreader* and *presenter*.
Announcer	An on-air talent personality is a person with the job to read scripts or announcements on radio or television. (Sick jockey, news anchor, sports announcer, etc.).
Audio Production	Recording of sound and reproduction is the mechanical or electrical inscription and re-creation of sound waves, typically used for the voice or for music. The two basic classes of sound recording include analogue and digital recording.
Automated Radio	Radios that can be automated or controlled by electronic devices require very little human intervention.
Artificial Intelligence (AI)	Intelligence is displayed by machines making their own decisions, sometimes independent of human intervention. AI machines are usually independently aware of the environment in which they operate and can solve problems without being told to.
Augmented Reality	To enhance a real-world experience by using digital technology to add additional sights, sounds and other sensory information.
Broadcast	A presentation of a recorded or live program on the radio or TV, commercial or otherwise.

Broadcasting The transmission of electromagnetic signals through the airwaves over a wide area, as in television or radio is known as broadcasting. These signals may also be transmitted point-to-point, as in microwave transmission, and are referred to as narrowcasting. A broadcast may also be synonymous with a TV or radio program. Broadcasting is also referred to as the radio and television broadcast industry. Typically, broadcasters work in the industry. To broadcast is to participate in a radio or television (TV) program.

Broadcast Journalism Encompassing radio, television and online forms of media, broadcast journalism is a discipline of writing news-oriented journalism. Broadcast journalism refers to television news and radio news, as well as online news outlets.

Chief Reporter The most senior *reporter* in a *newsroom*. In larger *newsrooms*, may be called a *news editor*.

Commercials Business's advertising messages are recorded or live. Lengths are usually 15, 30 or 60 seconds, and sometimes 2 minutes.

Commercial Copy The written commercial message.

Copy Editor Content or written material for commercials, promotional or public service announcements, or any other worded information that will be read by a DJ.

Copywriter An individual who scripts and writes radio and TV commercials.

Deejay (DJ) Radio personality, or disc jockey – a "jock."

Delayed Broadcast The program is pre-recorded, or not live. To be broadcast at another time.

Digital Broadcasting An advanced system of broadcasting radio (DAB or DRB) or television (DTV) in digital pulses rather than waves and which gives improved quality and/or more channels of content. There are currently two quality levels in television, standard definition (SDTV) and high definition (HDTV).

Digital Media Media produced and distributed using computers and/or the internet, as opposed to media either produced using mainly pre-digital processes (e.g., printing presses) or distributed in physical, non-digital form (e.g., printed newspapers or analogue television). So-called "traditional media" or "old media" can be digital media without being *new media*. Contrast with myFreeview television *and radio*.

Director	The individual is responsible for controlling the program on radio or TV.
Digital Image Technician	A crew position on a set whose sole responsibility is to oversee the ingestion of footage and tapeless workflow.
Digital Radio	Technology that concerns the transmitting of digital audio and data signals alongside existing AM and FM analogue signals, which allows listeners to enjoy CD-quality sound, eliminating the static and hiss associated with analogue broadcasts. It also provides a platform for new wireless data services that, combined with display screens on HD Radio-enabled receivers, will deliver a variety of additional information such as song titles, artist names, traffic updates, weather forecasts, sports scores, etc.
Disc Jockey	A deejay (DJ) or person who plays songs on the radio and provides information and other content to listeners.
Edit	To delete or add on a recording, tape, or video.
Editor	The person - usually a journalist – is in charge of the editorial content and direction of a newspaper, magazine, or another news outlet. (2) A person in charge of a special section of news output, e.g., sports editor, political editor etc. (3) Someone who prepares material for print or broadcast. See also, *news editor*.
Editorial	(1) An article was written by, or on behalf of, an editor, giving the news organization's opinion on an issue. (2) An adjective describing issues relating to news content as opposed to advertising or other non-news aspects of a newspaper or magazine.
Editing	The process of selecting the best portions of raw video footage and combining them into a coherent, sequential, and complete program. Editing also includes post-production additions of music and sound effects, as well as effects used as scene transitions.
Executive Producer	The person, or people, who provides the funding necessary to produce the program.
Feed	To transmit a telecast from one station to other stations or networks.
Feedback	An annoying sound is caused by amplifying the speaker to the microphone.
FM	A method of impressing data onto an alternating-current (AC) wave by varying the instantaneous frequency of the wave.

Format The program element; example: A.O.R. M.O.R. Country Western, Jazz, Rock, etc.

Freelance An individual who is self-employed and not employed by a station.

Frequency Technically this is an electromagnetic wave frequency between audio and infrared. When used in a programming context, it means the number of times the target audience will be exposed to a message.

High-Definition Radio or HD Radio This is when technology transmits digital audio and data alongside existing AM and FM analogue signals. Liquidity, the developer of this technology, says HD Radio offers FM Multicasting, or the ability to broadcast multiple program streams over a single FM frequency, with static-free, crystal-clear reception and a variety of data services including text-based information.

Host The main or central on-air or on-screen person employed in a radio or television program, hosting guests or people on a panel. (2) In computing, the device or program that stores data or websites centrally, making them accessible over the internet.

Hour An industry term that refers to audience measurement. For example, according to Arbitron, it means the average number of persons listening to a particular station for at least five minutes during a 15-minute period.

Imaging The type of promos (Fifties Rock) or how one position a radio station within the marketplace defines the station so that the listener knows what he/she will get when they tune in.

Influencer Individuals can influence the behaviour of large numbers of people through their posts on social media, even though they may have little or no presence outside it. Influencers usually make an income from advertisers hoping to reach – or influence – their followers. Because of the ease, simplicity and adaptability of social media, influencers usually drive temporary trends, fads, or fashions, so most have short online careers.

Internet of Things A network of machines, devices and appliances that have some level of computerisation inside them that enables them to interact through the internet to perform some functions. A popular household example is a fridge that can re-order food and drink without being told by a human.

Interview A formal, usually structured conversation between a journalist and a source to get information for a story.

Jingle A programming element such as an anthem or musical song produced by professional studio singers for commercials or radio station promotional announcements.

Journalism The communication of current issues and events to an audience in a structured way, usually in relation to a set of generally agreed social principles such as accuracy.

Journalist Someone who finds and presents information as news to the audiences of newspapers, magazines, radio or television stations or the internet. Journalists traditionally work within a set of generally agreed societal principles or within professional codes. Professional journalists are usually trained and receive payment for their work.

Live Assist This describes how a DJ creates a radio show by interacting with a computerised system. The DJ provides live talk, chat, liners, and then activates the computer system which automatically runs commercial spots, jingles, promos or songs. When it is time for the DJ to talk again, he/she deactivates the automation and goes live again.

Location Any place, other than the studio, where production shooting is planned.

Managing Director The senior editor is involved in the day-to-day production of a newspaper or magazine, usually with overall responsibility for the gathering, writing and sub-editing of news.

Media Management Managing media means moving and storing digital content assets in a safe way while managing requests for duplicates.

Media Officer Also called a *press officer*, a person employed by a company or other organisation to get positive publicity in the media and deal with enquiries from journalists.

Mixing Used in sound recording, audio editing, and sound systems, mixing balances the relative volume, frequency, and dynamical content of several sound sources for the different musical instruments in a band or vocalists, the sections of an orchestra, announcers and journalists, crowd noises, etc.

Monitor To listen or view a program, with radio or TV. Also, a speaker, as in a speaker used to monitor what goes is being broadcast or what is being cued up for subsequent play.

Multi-platform or Multiplatform — In journalism, stories that are told using more than one technology platform, each platform was chosen to best tell that part of the story. For example, a radio documentary may put additional information, transcripts etc. on a website for listeners to visit and learn more. A television report may use a social media platform to interact with viewers to enhance the story or gather and share more information.

Multicasting/ Multiplexing — The practice by which TV stations split a single digital signal into six or more different regular channels. TV stations generate increased revenue by using some channels for all of the video transmission, voice mail, paging, data transmission and Internet service.

Music Director — The person at a radio station is responsible for interacting with record company representatives, auditioning new music, and making decisions in conjunction with the program director, about which songs get airplay, how much and when. The music director devises rotations for songs and programs the daily music through specialised software.

Narrator — The individual who announces during a broadcast program.

New Media — Usually defined as media of mass communication that came into being because of computers. This contrasts with "old media", "legacy media" or "traditional media" that predate the computer age, even though they may now use computers as part of their production or distribution. Websites are new media, newspapers and even television are said to be old media. See also *Digital Media*.

News — Information, which is new, unusually, and interesting or significant to the recipient. It is usually about people or related in some way to their lives. News is produced in a structured way by *journalists*.

News Editor — The senior person in a television or radio newsroom, in charge of the news output, usually works with or supervising a news program's *executive producer*.

News Director — The person responsible for the structure of the newsroom, for personnel matters (performance evaluations and hiring and firing employees), managing the budget, and the overall effectiveness of the newsroom. The news director is also the final authority on which stories will air during a news broadcast.

News Reader	(1) The person - often a professional journalist - who presents news bulletins on radio or television. Also called an *anchor*. (2) Software that helps receive and read *RSS blog* and news feeds.
NCS	Nielsen Coverage Study, used in radio and TV ratings.
On-Demand Audio	The act of streaming or turning audio into digital data and transmitting it over the Internet.
Online Journalism	Reporting and writing news specifically for use on the Internet.
P.D.	Abbreviation for Program Director; the individual who controls the radio or TV station's format or programs that are broadcast.
Platform	Specific electronic technology for delivering content to audiences. Originally used to distinguish between different computer systems, platforms generally include audio (radio, podcasts etc.), video (television, film, video streaming), text (usually on websites, electronic billboards, or public display screens), mobile devices (such as smartphones, GPS navigators etc.).
Playlist	The official list of songs that a radio station plays during any given day or week. Playlists are important since they are submitted to trade newspapers and magazines and compiled to reflect national airplay and trends.
Portal	A web page through which visitors are encouraged to enter the main website for more pages and services.
Podcast	An audio file in a concise form, like a .mp3, is created in the form of a radio show with a way to subscribe to it so it is automatically downloaded and delivered to a personal audio device, such as an iPod.
PJ	A slang term that means a Pod-Jockey or a PJ for a Podcaster is one who hosts a podcast containing music.
Presenter	A person who presents a radio or television program on the air.
Producer	The person at a radio station who conducts the day-to-day business for a radio show, from lining up guests to acting as a liaison between management and talent.
Production	The actual shooting of the program.
Pre-production	Any activity on a program that occurs prior to the time that the cameras begin rolling. This includes production meetings, set

	construction, costume design, music composition, scriptwriting, and location surveys.
Production Director	The person at a radio station is responsible for overseeing the creation and implementation of commercial content, promotional announcements and any other audio element that must be created for broadcast.
Production Editor	A senior journalist is responsible for making sure content in a newspaper or magazine is printed properly. Usually works in a *press room* or print room during the *press run* where he or she can make last-minute changes.
Production Manager	The person who oversees producing the commercial announcements.
Production Element	An audio element such as music, a sound effect, or an audio effect, including a reverb or echo, is used in creating a final audio mix such as a commercial, promotional announcement, or even a humorous skit.
Production Team	Everyone involved in the production, both staff and talent.
Programming	The output or product of a radio station that is presented either in long-form or short-form styles. An example of long-form programming is when a station presents a topic in extended length, such as public radio does. Short-form programming is when a station maintains a constant format, such as a style of music where the programming includes smaller modules strung together.
Program Director	The employee at a radio station is responsible for the creation and maintenance of the audio output of a radio station with the goal of attracting a listening audience from a target demographic.
Promo	An announcement, live or pre-recorded, promoting upcoming events or the radio station's image, promotes the results of a past event or promotes any other event which benefits a station's activities.
Promotions Director	The individual who is responsible for creating, planning, and carrying out the logistics of both sales and programming-oriented promotions.
PSA	Another term for Public Service Announcement, a free non-profit organisation or business spot announcement.

Radio Telecommunication by modulation and radiation of electromagnetic waves.

Ratings An estimate of the size of an audience is shown as a per cent of a total group of people surveyed.

Reporter A journalist who gathers information - including researching and interviewing people - and writes news stories.

Script An entire program committed to paper, including dialogue, music, camera angles, stage direction, camera direction, and computer graphics (CG) notations.

Scriptwriter The person is responsible for placing the entire production on paper. Also commonly called *screenwriter* or *writer*.

Search Engine Optimisation (SEO) Techniques and software for improving how a website ranks on *search engines*.

Social Media Web-based tools (i.e., computer programs) that people use to create and share information, opinions, and experiences with other users. Originally used by people to keep in touch with family and friends, social media are now also used by print, broadcast and online media and journalists as quick, unstructured tools for communicating.

Spot Another word for a radio commercial.

Storyboard A sequence of drawings or diagrams used in planning movies or longer television reports, showing approximately how the shots will appear.

Sub-editor Journalists who check and edit a reporters' work, format stories for the page, add *headlines* or plan the page *layout*. See also *Copy Editor*.

Talent Anyone saw by the camera, whether they have a speaking or any other significant role in the program, as well as individuals who provide only their vocal skills to the production.

Talk Radio A radio station whose main format is speech-based programming, not music-based. Talk radio is usually more information-oriented, often with news and current affairs services and talkback programs.

Transcript A word-for-word written version of an interview or other spoken segment. Increasingly transcripts are posted *online*.

User-Generated Content	Websites where most of the content is sent in by its users in the form of articles, comments, video, photographs etc.
Voiceovers	A production technique using a disembodied voice as broadcast live or pre-recorded in radio, television, film, theatre or in a presentation; spoken by someone who also appears on-screen in other segments, voiceovers can also be commonly referred to as an off-camera commentary.

CHAPTER 1

INTRODUCTION

1.1 Research Background

The broadcasting activities industry is one of the industries that contribute to the growth of a country. The percentage contribution of the broadcasting activities industry to Malaysia's Gross Domestic Product (GDP) increased from 2017 to 2018. It rose from 2.5 per cent in 2017 to 2.7 per cent in that year. Clearly, it has shown how well the sector has evolved. This chapter explained the objectives, scope, and problem statement of the Occupational Framework (OF) specifically for the Programming and Broadcasting industry. The concept of the OF and its function in skills training and curriculum development will also be further elaborated.

In 2018, the local Communication and Media industry generated RM51.6 billion in revenue (up 0.2 per cent from 2017). The telecommunications sector generated 69 per cent of total revenue (RM35.9 billion), according to the government. The broadcasting sector accounted for 12 per cent (RM6.4 billion), and the postal sector accounted for 5 per cent (RM2.4 billion), while the ACE (Access, Certainty, Efficiency) market and non-public listed companies accounted for 14 per cent of total revenue (MCMC’s Annual Report 2018).

This rapid expansion can be attributed in large part to strategic regulatory interventions that have made it easier for new industry entrants to provide diversified communications and multimedia services for the benefit of

consumers while also contributing to higher profit margins.

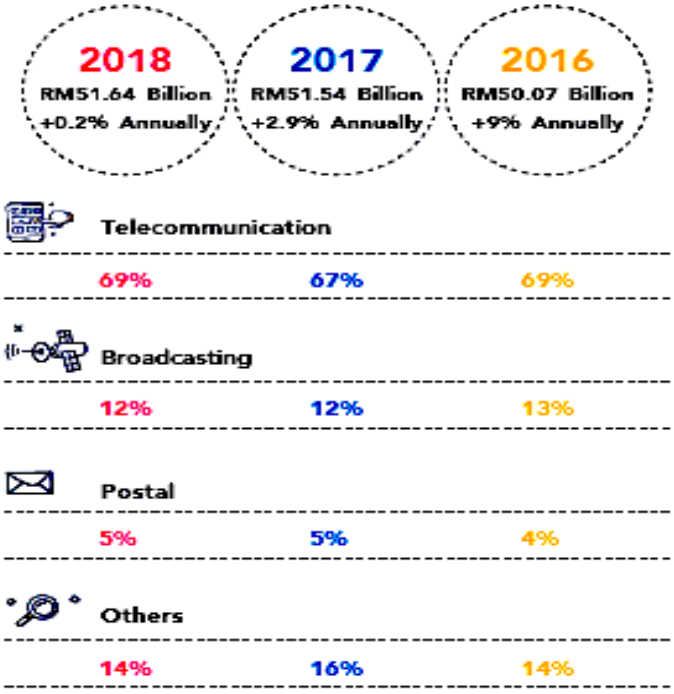


Figure 1.1: Local Communications and Multimedia Income 2016-2018
(*Source: MCMC's Annual Report 2018*)

1.1.1 Malaysia Media Landscape

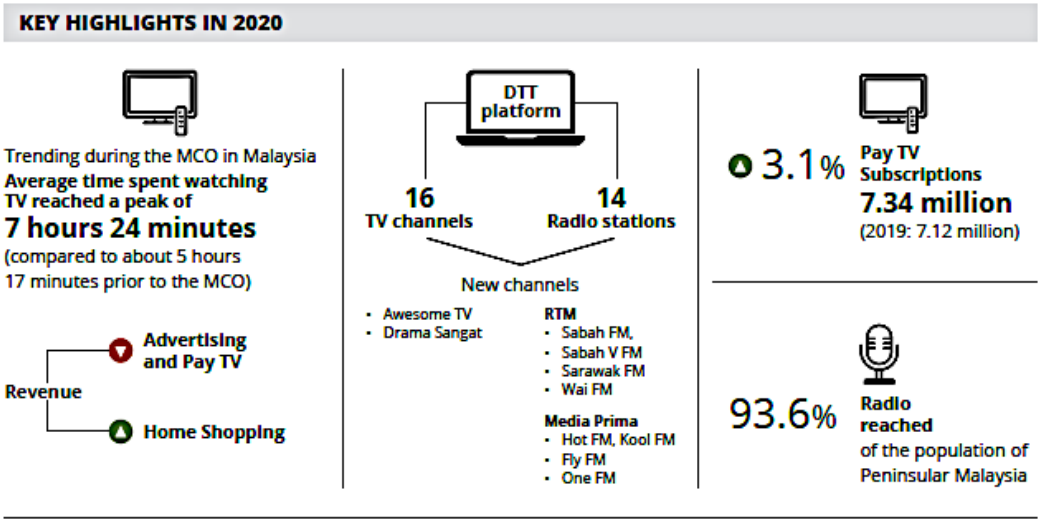
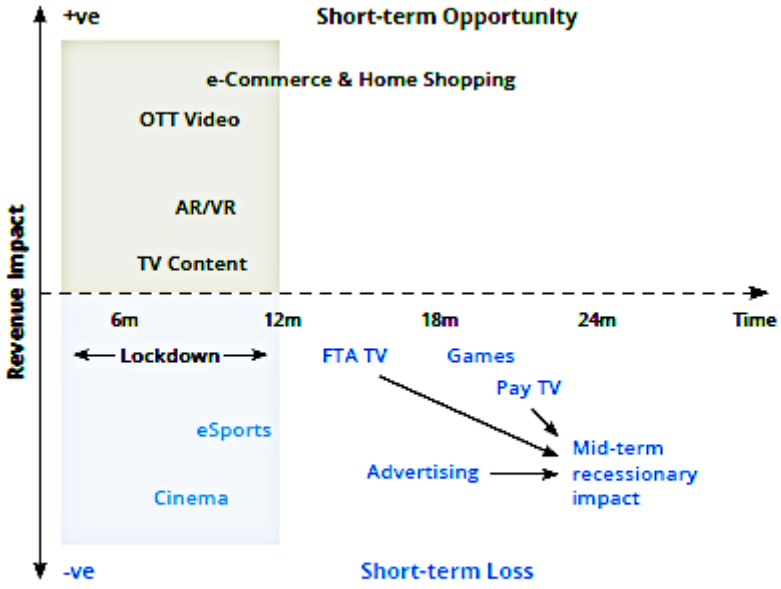


Figure 1.2: Key Highlights in 2020
(*Source: MCMC's Report 2021*)

The COVID-19 pandemic boosted technology adoption and altered consumers' lifestyles. People embraced technology more than ever to support all elements and repercussions of isolation. The pandemic and social distancing tactics altered people's leisure habits. More people watched and listened to the news to keep up with COVID-19. Increased digital entertainment, education and shopping mark the latest trends that recognise changing trends and consumer demands. Broadcasters shifted their emphasis from conventional to digital tools or platforms to interact with customers and enhance experiences. These initiatives offset the loss of income due to reduced advertising and consumer spending during the recession.



Note: The results are not an endorsement of service providers. Any reliance on these results is at the third party's own risk.

Source: Omdia, Digital is critical for those in self-isolation, March 2020

Figure 1.3: Global Trend: The Short-Term and Mid-Term Impacts of COVID-19 on the Broadcasting, Media, and Entertainment Industry

1.1.2 Broadcasting in Malaysia

When Malaysia's Free to Air (FTA) analogue terrestrial TV broadcasting services were totally switched off on October 31, 2019, it fully adopted digital TV transmission. Digital Terrestrial TV (DTT), branded as myFreeview,

provides more digital FTA channels with more content genres to meet consumer demands and interests, as well as crisper visuals, high-quality sound, and free interactive services.

	Service Provider	Core Network/ Technology	Core Business Model	Service			Number of TV Channel(s)
				Content	Broadband	Voice	
Terrestrial FTA TV	Media Prima	DTT	Advertising and sponsorship	✓	✗	✗	7
	TV AlHijrah	DTT		✓	✗	✗	1
	Bernama News Channel	DTT		✓	✗	✗	1
	Awesome TV	DTT		✓	✗	✗	1
	ASTRO Go Shop	DTT	Pay TV subscription and advertising	✓	✗	✗	1
Satellite TV	ASTRO	DTH/Satellite		✓	✗	✗	194, including 66 ASTRO branded channels
IPTV	ASTRO Maxis IPTV	Fibre		✓	✓	✓	
	ASTRO TIME IPTV	Fibre		✓	✓	✓	
	TM	Fibre	Telecommunications and related services	✓	✓	✓	84 channels
		ADSL		✓	✓	✓	

Notes: 1. DTT or DTTB – Digital Terrestrial TV Broadcasting; DTH – Direct to Home
2. TV AlHijrah and Bernama News Channel are government-owneds

Source: Industry, MCMC

Figure 1.4: Selected Major TV Offerings on Different Platforms
(*Source: MCMC's report 2020*)

(a) TV and Radio Channels on MyFreeview

With 16 TV channels and 14 radio stations released on the DTT platform, called myFreeview, in 2020, both public and private broadcasters delivered a selection of high-quality material in high-definition (HD) and standard-definition (SD) formats to Malaysian viewers. "Drama Sangat," a channel that rebroadcast drama series from Media Prima TV Networks, such as TV3, 8TV, ntv7, and TV9, was one of the new TV channels.

	Service Provider					
	RTM	Media Prima	AlHijrah Media Corporation	Bernama	ASTRO	Awesome Broadcasting
TV Channel	• TV1 (HD) • TV2 (HD) • TV OKEY (HD) • RTM Sports (HD) • Saluran Berita RTM (HD)	• TV3 (HD) • NTV7 • TV8 • TV9 • WOWShop (Malay) • WOWShop (Mandarin) • Drama Sangat	• TV AlHijrah (HD)	• BNC	• Go Shop (HD)	• Awesome TV
Radio Channel	• Nasional FM • Minnal FM • Traxx FM • Ai FM • Klasik FM • Asyik FM • Sabah FM • Sabah V FM • Sarawak FM • Wai FM	• Hot FM • Kool FM • Fly FM • One FM	-	-	-	-

Note: Drama Sangat was on trial period as at 31 December 2020.
Source: MCMC

Figure 1.5: TV and Radio Channels on myFreeview Platform

(a) Radio Listenership in Malaysia

Listeners still find radio a popular medium, and it is still relevant in the digital age. Traditional radio in Malaysia continues to reach out to listeners. According to the GfK Radio Audience Measurement (RAM) Survey Wave 2, performed from September to October 2020, 93.6 per cent of Peninsular Malaysians aged ten and up tune in to their favourite radio stations on a weekly basis (www. commercial radio. my).

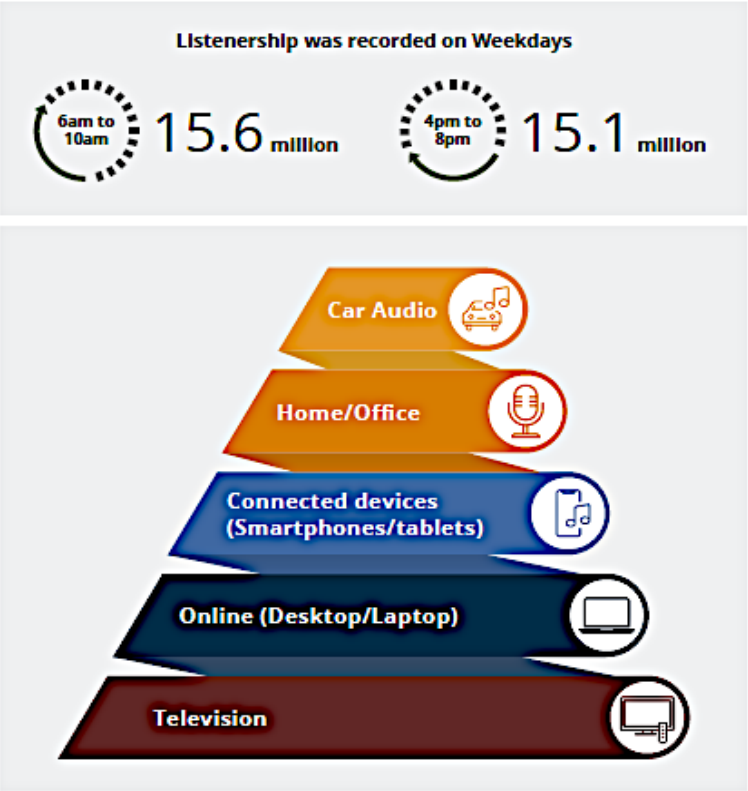


Figure 1.6: Listenership Recorded on Weekdays

As a result, radio stations took advantage of the growing popularity of the internet and smartphones to expand their audience reach through digital media. ASTRO Radio, for example, saw a total reach of 331.2 million people thanks to a 60 per cent rise in monthly video views and a 36 per cent increase in digital streaming. ASTRO Radio had a monthly reach of 102 million on Facebook throughout the survey period. By expanding audience involvement on social media, ASTRO was able to build its brand further. In comparison to 2019, ASTRO saw a growth in the number of followers on its social media sites like Facebook, Twitter, and Instagram in 2020.

1.2 Problem Statement

There have been various National Occupational Skills Standard (NOSS) documents developed for this area. Nevertheless, an analysis on the Occupational Structure in the specialisation of broadcasting activities under the Ministry of Human Resources has never been done. This study and its analysis

are critical to ensure the OF is in line with the development of the NOSS based on MSIC sections and divisions. Therefore, this research aims to define the industry as specified in the MSIC based on research methodology on its Occupational Structure (OS), Critical Jobs and Skills in Demand. The increasing demand for skilled workers and proper qualifications for existing workers in the broadcasting industry also are the main issues that require this industry to develop OF. Therefore, the Occupational Analysis must be done in the Programming and Broadcasting Industry to identify the overall structure and available career paths.

1.3 Objective of Study

The objectives of the study are as below:

a) To produce OS from document analysis and focus group.
b) To investigate the skills in demand in the industry.
c) To determine critical jobs in the Programming and Broadcasting Industry.
d) To identify jobs title related to IR 4.0; and
e) To determine Occupational Descriptions (OD) of each critical job title from the OS.

1.4 Scope of Study

The scope of the study revolves around the identification of job areas, job titles, and occupational descriptions that exist in broadcasting activities. The findings were compiled and produced as OF.

The study begins by analysing the current state of the industry through document analysis. Then, it is followed by consulting and interviewing relevant industry specialists as subject matter experts to obtain their opinions and input.

1.5 Justification for MSIC Section Selection

The scope of the Broadcasting Industry is in tandem with the two-digit

description of MSIC 2008 Division 60: Programming and Broadcasting Activities. This division includes radio broadcasting as well as television programming and broadcasting activities.

1.6 Structure of Chapter

This chapter concludes with a brief overview of the entire study, which includes:

a) Chapter 1 explains about research introduction, which consists of the introduction, problem statement, research objective, research scope and justification for MSIC 2008 Section Selection.
b) Chapter 2 provides a literature review about the research, which give a further understanding of the research purpose.
c) Chapter 3 explains the research approach of the study and the method deployed to achieve the objective of the study.
d) Chapter 4 shows the results and findings of the research based on the approach and method deployed are listed in this chapter.
e) Chapter 5 explains the discussion, summary and conclusion on the research done. Besides that, recommendations from the industry experts are also listed here.

1.7 Chapter Conclusion

Demand for adequately trained persons has increased due to Malaysia's current economic development plans and acknowledgement of Malaysian creative talent in the Broadcasting Industry. This illustrates the significant importance of professional workforce development. Stakeholders will be able to identify sub-areas that require broader human capital development efforts once the OS is created. Thus, Occupational Analysis is essential to establish the overall sub-areas that may not have been addressed, despite previous efforts in National Standards Development for this industry. In brief, this analysis will generate an OS that will be the “blueprint” for workforce planning in the Broadcasting Industry.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter will emphasize the explanation of the broadcasting activities industry, focusing on the current scenario in Malaysia, introduction to government policies, development plans, government bodies and competitiveness at the international level. Reviews in this chapter were obtained through a literature review. This literature review was further discussed with panel members to obtain insight on the matters at hand from a practitioner's perspective.

2.2 Malaysia Skills Certification System

Malaysia's Skills Certification System (*Sistem Persijilan Kemahiran Malaysia*) is a skill and work-based certification system that is attained through examination and training in Malaysia. Candidates can get a Malaysian Skills award if they meet the standards of the National Occupational Skills Standard. The Department of Skills Development (formerly known as the National Vocational Training Council) has developed and regulated this standard.

It is conferred as a formally recognised certificate to individuals who have shown capabilities that acquired or practised with competencies to do a task or

work, which usually in the form of basic vocational skills. The criteria and standards of the Malaysian Skills Certification System are articulated with higher-level qualifications to enable holders to progress from the level of semi skills to skilled production, right up to supervisory, executive, and managerial functions.

a) National Skills Development Act 2006 (Act 652)

The National Skills Development Act, 2006 (Act 652) came into effect on September 1st, 2006, after its gazette on June 29th, 2006. Its mandate is to promote skills training for the importance of a person's future and provide resolutions for other related issues. Act 652 is notable because it is the first time in Malaysia's history that national law has been passed specifically for the purpose of Tonton skills training and development. Furthermore, this act has clarified the definition and scope of skills training and a statutory interpretation that can be used to separate it from other aspects of the country's national education and training system. Act 652 also establishes a Malaysian Skills Certification System, which will result in the awarding of eight (8) levels of national skills qualifications, namely Malaysian Skills Certificate Levels 1, 2, and 3, Malaysian Skills Diploma, and Malaysian Skills Advanced Diploma.

b) Malaysian Qualification Framework (MQF)

Malaysia Qualification Framework (MQF) is a policy framework that complies with both national and international recognised qualifications. It includes titles and guidelines, as well as principles and protocols for the articulation and issuance of qualifications and statements of attainment. The qualification framework's elements denote the level of achievement for each qualification title. Additionally, it will provide pathways for all graduates in their respective occupational fields.

As shown in Table 2.1, the MQF has eight levels of qualification in three sectors and is supported by lifelong education pathways. DSD oversees the skills sector,

which has five (5) levels of qualification. Appendix 1 provides the details of each skill qualification level of the Malaysian Occupational Skills Qualification Framework (MOSQF).

Table 2.1: Malaysian Qualification Framework (MQF Chart)

(*Source: Malaysian Qualification Framework 2nd Edition*)

MQF LEVEL	MINIMUM GRADUATING CREDIT	ACADEMIC SECTOR	TVET SECTOR	LIFELONG LEARNING/ APEL CRITERIA FOR APEL(A)
8	No credit rating	PhD by Research		Admission criteria: 35 years old Bachelor's degree in relevant field/equivalent five years' work experience Passed APEL assessment
	80	Doctoral Degree by Mixed Mode & Coursework		
7	No credit rating	Master's by Research		Admission criteria: 30 years old STPM/Diploma/ equivalent Relevant work experience Passed APEL assessment
	40	Master's by Mixed Mode & Coursework		
	30	Postgraduate Diploma		
	20	Postgraduate Certificate		
6	120	Bachelor's degree		Admission criteria: 21 years old Relevant work experience Passed APEL assessment
	66	Graduate Diploma		
	36	Graduate Certificate		

5	40	Advanced Diploma	5	
4	90	Diploma	4	Admission criteria: 20 years old Relevant work experience Passed APEL assessment
3	60	Certificate	3	Admission criteria: 19 years old Relevant work experience Passed APEL assessment
2	30	Certificate	2	3R
1	15	Certificate	1	3R

c) Occupational Framework (OF)

For a definition, the OF is the output of the occupational analysis process used to determine an industry's occupational structure. Formerly known as Occupational Analysis (OA), the OF composes of three components: Occupational Structure (OS), Occupation Description (OD), and Skills in Demand.

The process of developing the OF is a necessary precursor to developing relevant NOSS. Once after its development, the NOSS will conduct competency training and certification for competent personnel.

d) National Occupational Skills Standard (NOSS) and National Competency Standard (NCS)

The NOSS is defined as a specification of the competencies expected of a skilled worker who is gainfully employed in Malaysia for an occupational area, level, and pathway to achieve the competencies. This standard has been published in Part IV of the National Skills Development Act 652. The sector experts have collaborated in developing NOSS in response to sector needs. It

serves as the primary tool for implementing the Malaysian Skills Certification System, which evaluates the performance of existing sector workers and trainees against NOSS to award Malaysian Skills Certificates.

Meanwhile, the responsible bodies have defined NCS as the knowledge, skills, and attitudes required to perform well in a particular occupation. However, these standards do not necessarily correspond to specific job classifications. Industry experts have established these standards to meet the call to industry needs and serve as the primary tool for implementing the Malaysian Skills Certification System, which evaluates the performance of current industry workers and trainees against the measures for awarding a Malaysian Skills Certificate.

e) Competency-Based Training (CBT)

CBT is a method of vocational training that focuses on what a person can do in the workplace in consequence of their education and training. CBT centres on performance standards established by the sector. The primary focus is measuring performance while having regard to knowledge and attitude rather than the time required to complete the course.

CBT is a learner-centric and outcome-based approach to training that allows everyone to develop skills at their own pace for a similar outcome, implying that training practises can be tailored to everyone to achieve the same result. The CBT concept serves as the foundation for the Malaysian Skills Certification system while this system was operated by DSD.

2.3 Scope of Occupational Framework Based on MSIC 2008

This section contains information on the definition of the Malaysian Standard Industrial Classification (MSIC 2008) in conjunction with the selection criteria for its titles.

a) Malaysian Standard Industrial Classification 2008 (MSIC 2008) Definition

The MSIC shall be a standard classification of economically productive activities. Its main goal is to establish categories of activities that can be used to collect and report statistics based on these activities. Therefore, MSIC aims to present these categories of activities to classify organisations according to their economic activity. For purposes of international comparability, the MSIC Version 1.0 2008 closely complies with Revision 4, published by the United Nations Statistics Division, of the International Standard Industrial Classification for All Economic Activities (ISIC), with some amendments to meet national requirements.

The industrial classification system aims to classify economic data according to activity categories with similar characteristics. MSIC shall be an economic classification of all types of activity and shall not be classified or classified as goods and services.

b) Title Selection Criteria

The research area focuses on broadcasting and television activities in the broadcasting industry. As stated earlier, the definition of the research area aligns with MSIC 2008. The following Table 2.2 and 2.3 present the definition and scope of coverage for the Occupational Framework in this area:

Table 2.2: Summary of MSIC Section, Division and Group

MSIC Section	**I**	**Information and communication**
MSIC Division	**60**	**Programming and broadcasting activities**
MSIC Group	**601**	**Radio broadcasting**
	602	**Television programming and broadcasting activities**

The table below is an excerpt taken from MSIC 2008 to illustrate the scope of this OF.

Table 2.3: Description of MSIC Section, Division, Group, Class, and item (*Source: MSIC, 2008*)

CLASSIFICATION	CODE	DESCRIPTION
Section	**J**	**Information and communication**
Division	**60**	**Programming and broadcasting activities** This division includes the activities of creating content or acquiring the right to distribute content and subsequently broadcasting that content, such as radio, television and data programs of entertainment, news, talk, and the like. Also included is data broadcasting, typically integrated with radio or TV broadcasting. The broadcasting can be performed using different technologies, over-the-air, via satellite, via a cable network or via the internet. This division also includes the production of programs that are typically narrowcasted in nature (limited format, such as news, sports, education, or youth-oriented programming) on a subscription or fee basis, to a third party, for subsequent broadcasting to the public. This division excludes the distribution of cable and another subscription programming (see division 61).
Classification	**Code**	**Description**
Group	**601**	**Radio broadcasting**

CLASSIFICATION	CODE	DESCRIPTION
		This group includes the activities of broadcasting audio signals through radio broadcasting studios and facilities for the transmission of aural programming to the public, to affiliates or to subscribers. Included are also the activities of radio networks, i.e., assembling and transmitting aural programming to the affiliates or subscribers via over-the-air broadcasts, cable, or satellite. The radio broadcasting activities over the Internet (Internet radio stations) are included here. Also included is data broadcasting integrated with radio broadcasting.
Class	**6010**	**Radio broadcasting** **Includes:** (a) broadcasting audio signals through radio broadcasting studios and facilities for the transmission of aural programming to the public, to affiliates or to subscribers (b) activities of radio networks, i.e., assembling and transmitting aural programming to the affiliates or subscribers via over-the-air broadcasts, cable or satellite (c) radio broadcasting activities over the Internet (Internet radio stations) (d) data broadcasting integrated with radio broadcasting **Excludes:** **c)** production of taped radio programming, see class 5920
Item	**60100**	**Radio broadcasting**

Group	**602**	**Television programming and broadcasting activities** This group includes the creation of a complete television channel programmed, from purchased programmed components (e.g., movies, documentaries, etc.), self-produced programmed components (e.g., local news, live reports) or a combination thereof. This complete television program can be either broadcast by the producing unit or produced for transmission by a third-party distributor, such as cable companies or satellite television providers. The programming may be of a general or specialized nature (e.g., limited formats such as news, sports, education or youth-oriented programming), may be made freely available to users or may be available only on a subscription basis. Also included in the programming of video-on-demand channels and data broadcasting integrated with television broadcasting.

Class	**6020**	**Programming and Broadcasting** **Includes:** (a) creation of a complete television channel programme, from purchased programme components (e.g., movies, documentaries, etc.), self-produced programme components (e.g., local news, live reports) or a combination thereof (b) programming of video-on-demand channels (c) data broadcasting integrated with television broadcasting (d) Internet TV broadcasting **Excludes:** (a) production of television programme elements (e.g., movies, documentaries, commercials), see class 59110 (b) assembly of a package of channels and distribution of that package via cable or satellite to viewers, see division 61
Item	**60200**	**Television programming and broadcasting activities**

2.4 Key Stakeholders

The key stakeholders for the Programming and Broadcasting services activities industry in Malaysia are government agencies, regulatory bodies, industry associations and professional bodies.

a) Government Regulatory and Statutory Bodies

These are the Government Agencies that are empowered by the legislations according to the scope and powers that are given in the related acts that directly regulates the programming and broadcasting activities industry in Malaysia.

Table 2.4: List of Government Agencies and Regulatory Bodies for Programming and Broadcasting Industry

NO.	ORGANISATIONS	OVERVIEW, ROLES, FUNCTIONS AND RESPONSIBILITIES
1.	Ministry of Internal Affairs	The Ministry of Home Affairs (Malay: Kementerian Dalam Negeri), abbreviated KDN, MOHA, is a ministry of the Government of Malaysia that is responsible for home affairs, including publication/printing/distribution of printed materials and film control. The Film Censorship Board of Malaysia is a Malaysian government ministry that vets films. It is under the control of the Ministry of Home Affairs.
2.	Malaysia Communication and Multimedia Commission (MCMC)	The MCMC regulates and promotes the communications and multimedia industry encompassing telecommunications, broadcast, Internet services, postal and courier services, and digital certification. The MCMC delicately balances the overall interests of the consumer, industry, and investor. The MCMC also ensures that consumers have access to competitive pricing, wide choices, quality of service, overcome digital divide (through USP funding) and suitable

		broadcast content for Malaysians.
3.	RTM	RTM's main function is to fulfil the government's role in providing educational programmes, information and entertainment through free-to-air television services and is partially commercial oriented. RTM began laying the foundations for recognition in 2000 and launched the Digital Terrestrial Television Broadcast pilot project two years later. The Malaysian cabinet has approved for RTM to proceed with recognition with the national roll-out planned for 2012 and the termination of analogue transmission in 2015.
4.	MEDIA PRIMA	Media Prima is a constituent company of the FTSE4Good Index Series, a benchmark, and tradable indexes for ESG (Environmental, Social and Governance) investors. Membership to the FTSE4Good Index Series is a strong endorsement of Media Prima's commitment to responsible business practices, good corporate governance, and care for the environment. In television, the Group maintains its number one position through its four channels — TV3, 8TV, ntv7, and TV9. Media Prima is home to Malaysia's fastest-growing home shopping network, WOW SHOP, and is the pioneer behind Tonton (https://www.tonton.com.my), Malaysia's first and most popular video streaming portal. Media Prima is the owner of The New Straits Times Press (Malaysia) Berhad, Malaysia's largest publisher with three national news brands – New Straits Times, BH ("Berita Harian") and Harian Metro. In 2020, Print Towers Sdn. Bhd., formed out of NSTP's Production and Distribution unit, began to operate as a standalone commercial entity.

5.	ASTRO	Astro is Malaysia's leading content and entertainment company, serving 5.7 million homes or 74% of Malaysian TV households, 8,300 enterprises, 17 million weekly radio listeners (FM and digital), 14 million digital monthly unique visitors ("MUV") and 2.8million shoppers across its TV, radio, digital and commerce platforms.
5.	FINAS	FINAS make recommendations to the Minister on the policies, methods, and measures to promote, nurture and facilitate the development of the Malaysian film industry. FINAS also regulates and co-ordinate the activities of persons and bodies relating to the film industry, including matters pertaining to the production, distribution, and exhibition of films in Malaysia.
6.	BERNAMA	The Malaysian National News Agency or BERNAMA, a statutory body, was set up by an Act of Parliament in 1967 and began operations in May 1968. BERNAMA's role as a source of the reliable and latest news is well known among local and international media, including government agencies, corporations, universities, and individuals nationwide. Most Malaysian newspapers and electronic media, and other international news agencies are BERNAMA subscribers. BERNAMA is operating in the information industry, which is competitive but has tremendous growth potential. BERNAMA is continuously conducting research to upgrade the quality of its products and services, which include real-time financial information, real-time news, an electronic library, dissemination of press releases, event management, photo, and video footage.

7	KPDNHEP	The Ministry of Domestic Trade and Consumer Affairs was established on 27 October 1990. The objectives of the Ministry are to promote the development of a viable, competitive and sustainable domestic economy, specifically in the Distributive Trade Sector. The Distributive Trade Sector is one of the main contributors to the National GDP, and it acts as a buffer to economic stability, especially during times of uncertainty and unpredictable situations of the global economy. Distributive trade needs to be strong so as to counterweigh any instability in the economy. At the same time, the Ministry is committed to protecting the interest and rights of consumers. This includes the development of an ecosystem of consumers and businesses that complements each other towards self-regulation, in line with the aspirations of people in a developed country. It is hoped that matured and ethical consumers and businesses can be developed with the outcome of an economically and socially balanced nation.

NO.	ORGANISATIONS	OVERVIEW, ROLES, FUNCTIONS AND RESPONSIBILITIES
8.	Training institution	Training institute includes universities, colleges, school, which offers a wide range of film and media courses includes production and broadcasting knowledge and skills.

b) Industry Associations and Professional Bodies

This section provides information regarding industry associations and professional bodies related to programming and broadcasting activities.

Table 2.5: List of Related Industry Associations and Professional Bodies for Programming and Broadcasting Activities Industry

NO.	ORGANISATIONS	OVERVIEW, ROLES, FUNCTIONS AND RESPONSIBILITIES
1.	Asia-Pacific Broadcasting Union (ABU)	The Union was established in 1964 as a non-profit, non-governmental, non-political, professional association with a mandate to assist the development of broadcasting in the region. ABU promotes the collective interests of television and radio broadcasters as well as key industry players and facilitates regional and international media cooperation. ABU is a member of the World Broadcasters' Union and works closely with the other regional broadcasting unions on matters of common concern such as reserving frequencies for broadcasters, recognizing operating and technical broadcasting standards and systems and recognizing the Broadcasting Treaty. The ABU runs a wide range of services, including the daily Asiavision TV news exchange, several co-productions, program exchanges and

		technical, programming, legal and management consultancies, as well as industry and international conferences and international frequency planning and coordination. The Union negotiates rights for major sports events and recognizes their coverage for the region. It also runs the prestigious annual ABU Prizes, TV Song and Radio Song Festivals.
	Association for International Broadcasting (AIB)	The Association for International Broadcasting (AIB) is a not-for-profit, non-governmental trade association that represents international television and radio broadcasters and online broadcasters, founded in 1993. The AIB provides its members with market intelligence, lobbying, networking and marketing support. It publishes an international media magazine, The Channel, that has a regular subscriber base of more than 7,000 senior executives in broadcasting and electronic media organisations in over 120 countries. The AIB also produces regular electronic newsletters reaching over 27,000 people worldwide. The AIB has an immense collection of data about broadcasting and electronic media covering territories throughout the world.
	Asia-Pacific Institute For Broadcasting Development (AIBD)	The Asia-Pacific Institute for Broadcasting Development (AIBD) was established in August 1977 under the auspices of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). It is a unique regional inter-governmental recognize servicing the countries of the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) in the field of electronic media development. It is hosted by the Government of Malaysia, and the secretariat is in Kuala Lumpur. The Institute seeks to fulfil this mandate by

		mobilizing the intellectual and technological resources available within the national broadcasting organizations of its member countries as well as regional and international bodies through a well-established infrastructure and networking mechanism which includes government agencies, non-governmental organizations, institutions of higher learning, private sector, and individual professionals.

2.5 Government Legislations, Policies, and Initiatives

It is imperative that this research must refer to legislations, by-laws and policies that are directly related to the programming and broadcasting services industry.

a) Government Legislations

In terms of media regulation that is established in Malaysia at this point in time, the broadcasting industry abides by the Film Censorship Act 2000 and the Malaysia Communication and Multimedia Act (1998). The following legislations are also relevant to the programming and broadcasting activities industry.

1) Communication and Multimedia Act 1998

The Communications and Multimedia Act 1998 (*Akta Komunikasi dan Multimedia 1998*) is a Malaysian law that was enacted to provide for and to regulate the converging communications and multimedia industries and for incidental matters. The Communications and Multimedia Act (1998) came into enacted on 1 April 1999, while with it, the Telecommunications Act (1950) and the Broadcasting Act (1988) were repealed.

2) Sedition Act 1948

In Malaysia, the Sedition Act 1948 (*Akta Hasutan 1948*) prohibits seditious speech. The legislation was initially established by British Malaya's colonial rulers in 1948 to quell the local communist insurgency. The legislation criminalises communication that has a "seditious character," such as that which "incites hate or contempt for or disaffection with" the government or fosters "ill-will and enmity amongst various races." The term "seditious disposition" is defined in section 3 of the Sedition Act 1948 and is broadly comparable to the English common law concept of sedition, with changes to account for local circumstances. The Malaysian definition contains a critique of certain provisions of the Malaysian Constitution, namely those dealing with the Malaysian social compact, such as Article 153, which deals with special privileges for bumiputra (Malays and other indigenous peoples, who comprise over half the Malaysian population).

3) National Film Development Act 1981

National Film Development Act 1981 (Act 244) (*Akta Perbadanan Kemajuan Filem Nasional Malaysia 1981*) or the FINAS Act 1981. Essentially, the Act is applicable to all individuals and companies engaged in film production, film distribution and film exhibition. In today's context, this presumably covers not only physical distributors but also online platforms which distribute and exhibit films. The FINAS Act 1981 was initially enacted to regulate mass broadcast media and to address technological changes occurring in the film industry at the time. However, two decades later, the Act has become anachronistic and cumbersome in the face of contemporary technology and internet culture.

4) Copyright Act 1987

Copyright law in Malaysia is governed by the Copyright Act 1987. Under the

Act, copyright exists automatically upon the creation of a work without the need for any formal registration. In the absence of this, the Act now provides for a voluntary notification exercise for the author or owner of a work and such notification is considered prima facie evidence in cases of copyright infringement. While the exclusive rights in relation to literary, musical or artistic works, films, sound recordings and derivative works are provided under Section 13, the exclusive rights in relation to broadcast are dealt with under section 15 specifically. Essentially, broadcast means a transmission by wire or wireless means, of visual images, sounds or other information which is capable of being lawfully received by members of the public. The exclusive right in a broadcast includes the performance, showing or playing to the public in a place where an admission fee is charged either in its original form or in any way recognizably derived from the original.

b) Government Policies and Initiatives

This section provides information regarding the economic activities of this area that are governed by certain rules and regulations which are enforced by related government agencies.

1) Jalinan Digital Negara (JENDELA)

The Jalinan Digital Negara (JENDELA) plan was formulated to provide wider coverage and better quality of broadband experience for the Rakyat whilst preparing the country for 5G technology. Explore the many initiatives set up to bring you improved connectivity and communication.

JENDELA is a comprehensive digital infrastructure plan aimed at addressing the arising needs and demand for better quality for fixed and mobile broadband coverage due to the COVID-19 pandemic and the Movement Control Order. The JENDELA will support activities such as working remotely or working from home, operating businesses online, and students' education, as well as staying in touch with families and friends.

The COVID-19 situation saw the need to reassess the digital infrastructure to improve shortcomings and prepare the country to be better equipped to undertake the digital economy drive. MCMC, as the Communications and Multimedia regulator, had taken a leading role to establish the National Digital Infrastructure Lab (NDIL) that took place from 13 July-14 August 2020. The lab session involved representatives from ministries, government agencies, mobile and fixed broadband industry service providers (Celcom, Digi, Maxis, Umobile, Telekom and TIME).

2) National Digitalisation Broadcasting Project

Initiatives to accelerate the transition from analogue to digital television broadcasting were stepped up in 2018 and are now being implemented actively and smoothly. MYTV Broadcasting Sdn Bhd (MYTV), as the Common Integrated Infrastructure Provider (CIIP), is currently providing digital television services throughout Malaysia under the brand myFreeview. With the addition of 35 transmitters by the end of December 2018, DTT services covered 93 per cent of the population.

MYTV aims to reach 95 per cent of the population by the end of March 2019 through the addition of nine (9) DTT transmitters, bringing the total to 44 nationwide. MYTV will then launch a Direct to Home (DTH) service to ensure that digital TV coverage is available in rural areas. DTH uses satellites to supplement DTT service coverage in areas where DTT is unavailable. With the forthcoming Analogue Switch Off (ASO), the DTH services will provide 100 per cent coverage nationwide for viewers to enjoy free digital TV services via myFreeview.

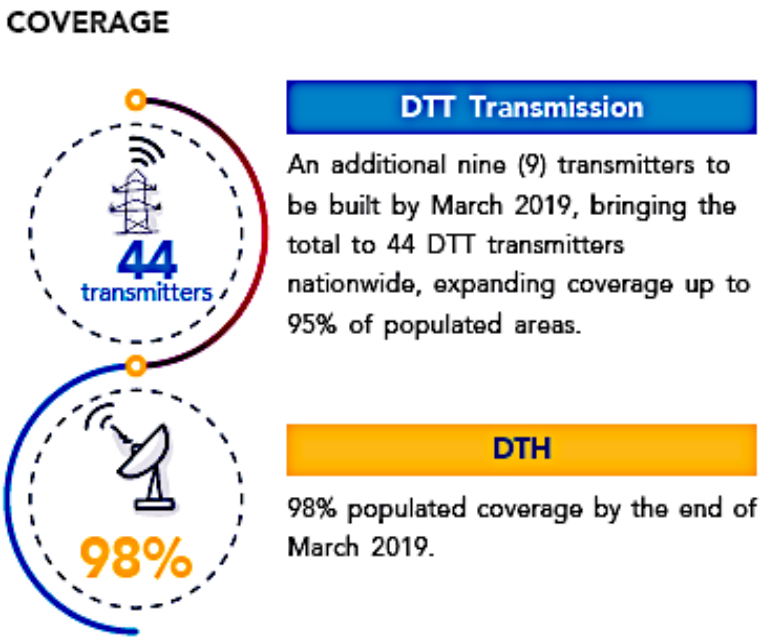


Figure 2.1: DTT and DTH Coverage in Malaysia
(*Source: MCMC's Annual Report 2018*)

3) Radio Frequency-Electromagnetic Fields (RF-EMF) Emission Measurement

In the first quarter of 2018, MCMC's Technology Development Department conducted Radio Frequency-Electromagnetic Fields (RF-EMF) emission measurements at 52 selected sites across four (4) regions:

1. Central (Kuala Lumpur, Selangor, Negeri Sembilan);
2. North (Perak, Penang);
3. South (Johor, Melaka); and
4. East (Pahang, Kelantan, Terengganu)

RF-EMF measurements are conducted to inspect industry compliance with the Mandatory Standard for Electromagnetic Field Emission from Radio Communications Infrastructure (MS for EMF). These measurements also provide reassurance to the public that radio communications infrastructure is safe and does not cause adverse health effects on the surrounding communities.

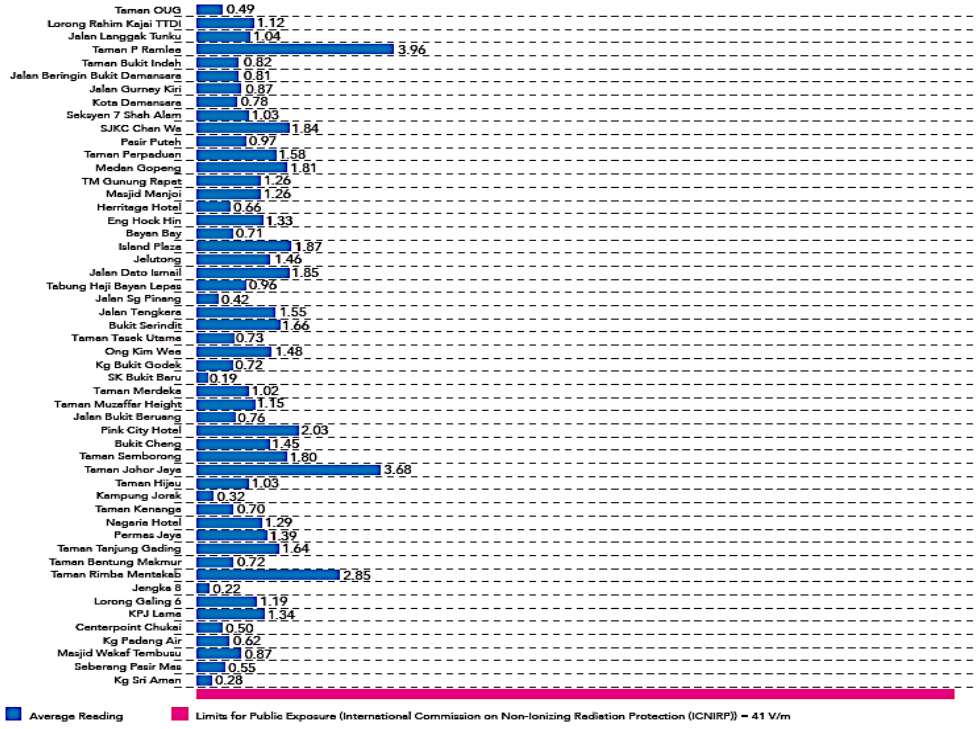


Figure 2.2: Results on long term Radio Frequency-Electromagnetic Field (RF-EMF) emission monitoring in Central, Northern, Southern and Eastern regions (*Source: MCMC's Annual Report 2018*)

4) Sustainable Development Goals

Sustainable Development Goals (SDG) is the 2030 core agenda in sustainable development which was agreed by world leaders on 25 September 2015 at the United Nations Conference. 2030 Agenda is a global commitment towards more sustainable, resilient, and inclusive development.

Malaysia's involvement in the development of the SDG at the international level began in late 2014. In July 2015, the DOSM was officially appointed as the focal point to coordinate the SDG data collection during Main Users Committee No.1/2015. The main role of the focal point is to coordinate the compilation of SDG indicators from various line ministries/agencies.

Currently, the second report, 'SDG Indicators, Malaysia, 2019', was published in November 2020 which consists of 128 indicators. Malaysia has achieved a better level of indicator availability with the addition of 37 new indicators and

18 indicators at the district level. This, in turn, can help in the measurement and monitoring of the SDG in the smallest area. For the purpose of disseminating and sharing data related to SDG, DOSM launched this National SDG Progress Monitoring System (SDG Dashboard) in March 2019, and the dashboard can be accessed via http://mysdg.dosm.gov.my/.

To be closely associated with the Programming and Broadcasting Activities, this manuscript has suggested two latest assessments of SDG Indicators for Malaysia – Goal 9 and Goal 16. Goal 9 specifically aims to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Meanwhile, the objective of Goal 16 is to promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

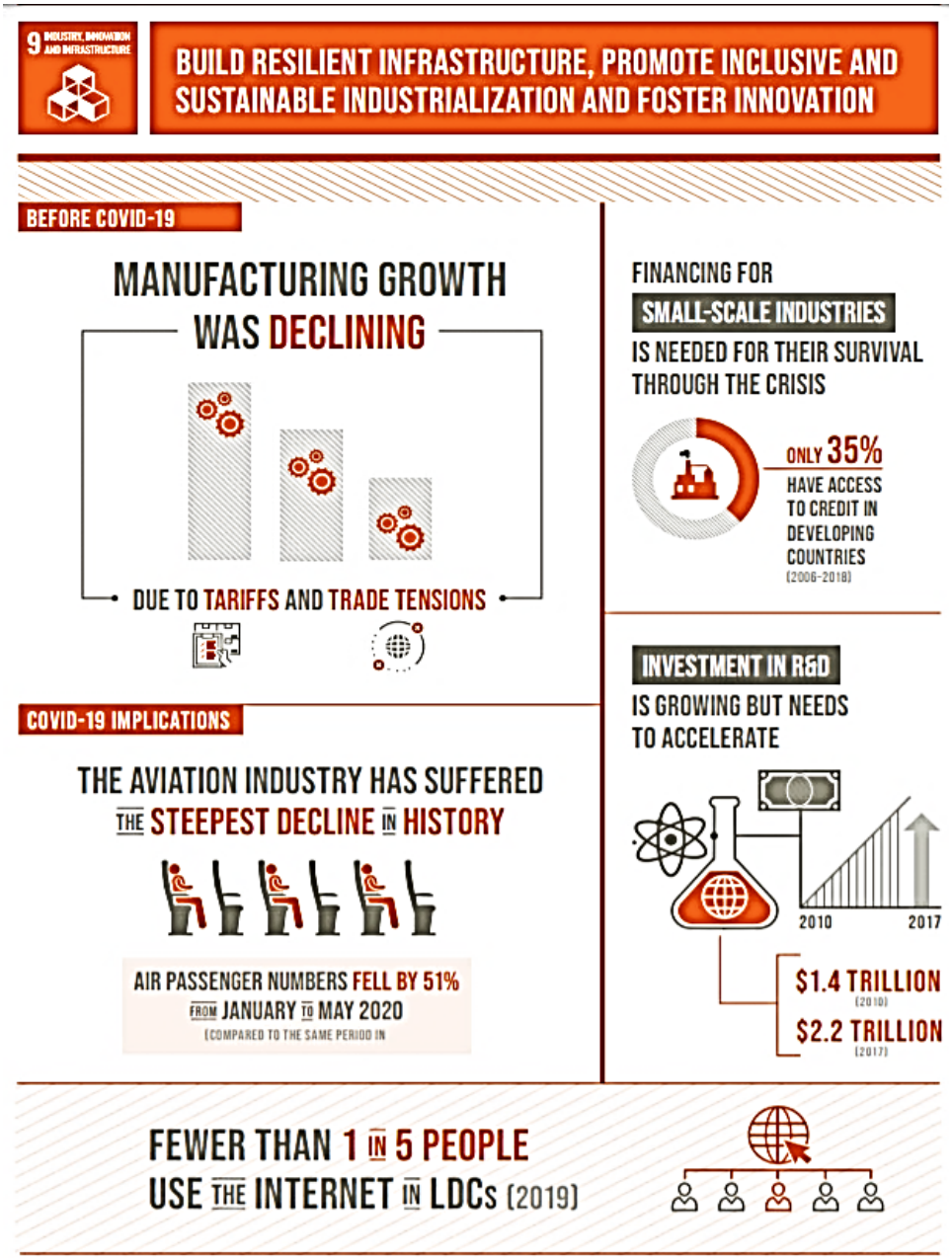


Figure 2.3: SDG 9

(*Source: The Sustainable Development Goals Report 2021*)

Figure 2.4: SDG 16

(*Source: The Sustainable Development Goals Report 2021*)

5) Green Technology

The main environmental impacts of the broadcasting industry are greenhouse gas (GHG) emissions, energy use, raw material consumption and electronic waste. The UN reported a record 54 million tons of toxic e-waste was generated worldwide in 2019. That's a rise of 21% since 2014 and includes at least $10 billion worth of precious metals from consumer electronics devices. Cisco believes global internet video traffic will increase by one-third each year through 2022, with live internet video, led by platforms such as Twitch and YouTube, growing at an astonishing rate of 73% in that period. Video streaming will constitute 79% of all mobile network traffic by 2022.

It's clear to us that the broadcast industries are taking sustainability seriously. At a bare minimum, vendors should hard-wire sustainability into corporate policy. That includes embedding relevant environmental, social and governance matters into culture and work practices from recycling schemes and product packaging to flexible remote workflows.

Going green is no longer an option for clients. Considerations of installing hardware over software are paramount. Digital-only solutions can eliminate new hardware at a stroke. Furthermore, power, storage, compute, and transport energy inefficiencies can be shrunk from a production's footprint overnight thanks to cloud-based technology.

Companies now realise that whether it's a second, third or fourth COVID wave, or indeed a whole new type of pandemic, such events can seriously impact their ability to operate and even risk their overall survival. By building in operational resiliency, the effects of any such situation can be significantly mitigated.

2.6 Industry and Market Intelligence

Industry and market intelligence is the collection and analysis of data of an industry by various sources of data to be recognized by the industry to make business decisions, manpower developments and training requirements. Industry

intelligence is critical for developing strategies in the development of the industry, areas of manpower development and the impact of those developments. This section will provide information regarding the programming and broadcasting service activities industry based on the industry growth and employment statistics.

2.6.1 Growth of Programming and Broadcasting Services Activities Industry

In Malaysia, the TV industry has grown tremendously – from being just the basic national free-to-air channels. Consumers in Malaysia are spoilt for choice with the entrance of the pay-TV sector and Internet Protocol television (IPTV).

Malaysia's national public broadcaster, Radio Televisyen Malaysia (RTM), is also known as the Department of Broadcasting, Malaysia (*Jabatan Penyiaran Malaysia*). It is the country's earliest and oldest broadcaster, having been established on April 1, 1946, as Radio Malaya. Radio Malaya was renamed Radio Malaysia when Malaysia was constituted on September 16, 1963, and Televisyen Malaysia was founded on December 28, the same year. Radio Malaysia and Televisyen Malaysia joined in 1969 to become the current broadcast department.

The early TV stations, apart from being government-owned, depended on advertising for revenue. The TV programmes from one or two channels were not as wide in choice as the varied channels and more programmes sourced from worldwide that we have on satellite direct-to-home (DTH) TV now. For Example, commercial TV stations started in Malaysia only in 1984, with TV3. Only in the late 1990s did DTH TV start with ASTRO providing successful pay-TV service.

In 2015, RTM undertook trials for digital terrestrial TV (DTT), while in 2018, MYTV and Maxis/ASTRO are undertaking mobile TV trials. The analogue free-to-air (FTA)TV we have today has its limitations, which is expected to be

alleviated by the digital format. For instance, improved compression technology allows more HDTV programmes, with enhanced video and sound quality, to be transmitted within the bandwidth originally used by the analogue TV channel. New broadcasting platforms are emerging, e.g., mobile TV broadcasting services, and new entrants such as telcos alike, to broadcast TV programmes to consumers on the move. Also, IPTV technology enables broadcast services to provide recognized services to the end-user, such as VoD and iTV.

With such developments happening worldwide, the broadcast arena is no longer confined to traditional broadcasters. Furthermore, there is potential for the rise of the P2P type of transactions as the trend is in place for capabilities of technology permitting the shifting of time, place and media. P2P signals a shift in the architecture and availability of broadcast video assets, and increases competitive forces or, in other words, lowers the entry barriers for video distribution. Careful strategic planning and execution are required to take advantage of potential opportunities in a new era in broadcast through digital TV and manifestation of its associated benefits. The broadcast arena to come is not expected to grow smaller, but bigger as, for example, P2P is expected to complement traditional broadcast; effectively, this means a bigger pie that has more revenue source options compared to what is available today, and this can be shared amongst more players as it reaches old consumers in new ways and of course the new type consumers.

Changes are not new to the broadcast arena. This can be seen in the Malaysian scenario over the decades. However, the difference between then and now is the pace of developments, which appears to race on today compared to the sedate gallop of the past. Such a scenario offers opportunities, especially for the incumbents, as they have the requisite muscles to garner economies of scale.

2.6.2 Challenges in Broadcasting Industries

a) Industrial Revolution 4.0

Recent developments in Industrial Revolution 4.0 – or IR 4.0 – are compelling industries to re-assess and innovate the environment in which they are used to operate. One of the major drivers of this revolution is the convergence of technologies and the recognition of processes. Changes in operational models are creating inequality among providers, also in the broadcasting industry. Many broadcasting processes may soon become redundant due to artificial intelligence (AI) and machine learning.

The IR 4.0 developments have led to an almost never-ending cycle of fast-evolving standards, a situation that causes disruption, uncertainty, and confusion. Smaller broadcasters and vendors are not always able to comply with the new standards or fall short of full compliance; this jeopardies playout at the end of the content production workflow.

b) OTT

An **Over-The-Top (OTT)** media service is a media service offered directly to viewers via the Internet. It bypasses cable, broadcast, and satellite television platforms. This type of service has gained attention from the audience since most of the content now can easily be streamed via a digital platform such as Netflix, YouTube TV, Apple TV+, Disney+ Hotstar, HBO Go etc.

OTT players have disrupted the video content market by providing choices and flexibility to consumers and creating a new experience of watching. By offering affordable streaming services, it has affected DVDs and Blu Ray business. From what we can see now, this competitive media environment has created a wide choice of content for consumers, and at the same time, it provides a revenue source for service providers. The services can be accessed through smart TVs, computers, tablets and mobile. Smart TV manufactures are also building in OTT services in their TVs.

Some service provider like Telekom has decided to create a partnership with OTT media service providers to offer a variety of content in the future. However, increasing competition from OTT service providers intensifies the pressure on Pay-TV service providers to reduce tariffs or provide attractive bundle services (MCMC Report, 2020).

The COVID-19 pandemic has accelerated the shift in media consumption and advertising strategies toward digital platforms. Pay-TV growth has been slowing down as a result of the popularisation of OTT video streaming platforms. The broadcasting sector in 2020 recorded a decline of 8.3% in revenue to RM5.38 billion compared with RM5.87 billion in 2019. This was partly due to the decline in Pay-TV ARPU from RM100 to RM96.90 as ongoing competition from OTT video services pressured Pay-TV service providers to pursue competitive pricing. In 2020, there were an estimated 953,000 OTT video subscriptions in Malaysia, a growth of 46% from 653,000 in 2019.4 This indicates that digital platforms are becoming a popular way for people to access and consume content (MCMC Report, 2020)

c) Formatting

The lack of compliance undermines the integration of Malaysia's creative industry with mainstream television broadcasting. There are no fewer than 1,300 registered part-timers, stringers and vendors, contributing a vital 40%–60% of airtime to the local television industry, but many of them experience difficulties adapting to the new quality parameters. However, failure to comply will lead eventually to a shortage of relevant broadcast content, especially in markets where the legacy broadcasters are less active. To give an example, when supplying content, broadcasting SMEs and vendors need to follow what is called inherent station formats.

The two content submission formats (or codec options) that vendors have are XDCAM 422 and Apple Processor 422. Vendors should send in their content

in either of these two recommended file-based formats. Content that still exists in formats that are obsolete such as films, need to be converted first. The problem is that inherent station formats may differ from one another. The DAM/MAM production process unique to stations is usually made known through a producer/vendor content supply policy document. The station format is important for the system to convert content from the archives into programmes that are recognised by their respective machine-learning algorithms. The system will automatically track and upload the required content and provide essential data for users. When fields are empty, however, the metadata entry must be researched and the information entered manually.

Different broadcasters demand different submission formats; Malaysia's SMEs and vendors will be faced with dilemmas as to which formats to adopt and which QC parameters to work with. Barriers are created using non-standard equipment at production. However, as production processes need to adhere to strict technical QC parameters, producers need to change their chain of equipment used for production, incurring additional costs.

d) Limited Resources

The already struggling Small Medium Enterprise (SME) and vendor sector is recognised by a lack of financial and material resources and may not always succeed either in attracting the expertise that is so urgently needed now. SMEs and vendors do recognise the significance of evolving metadata indexing, QC standards that comply with mainstream machine-learning processes and the continuous rewriting of new algorithms. Yet, few of them are ready for these far-reaching changes as it requires hefty capital investment in a new production chain. By contrast, the more established and larger-size broadcasters are well endowed with resources to manage compliance by means of, among other things, infrastructure with machine-learning features. SMEs and vendors are aware that machine-learning features will harmonise with mainstream broadcasters' QC requirements and will prevent the rejection of otherwise legitimately approved programs. However, due to their

limited resources, they must be more cautious in taking up the challenge.

e) Virtual Reality and Augmented Reality

Broadcasters around the world have been exploring virtual and augmented reality. Several broadcasters have begun to explore how these technologies can be used to enhance their current offerings and expand the services they make available to their audiences. Although most offerings tend heavily to sport, broadcasters around the world are still exploring how to best use this technology to reach their audiences. Examples of applications could range from live, immersive broadcasts to behind-the-scenes tours to stand-alone storytelling experiences.

f) Cloud Broadcasting

Cloud technology is disrupting economies and business models across multiple industries worldwide, including broadcasting. Leveraging utility computing, storage and network bandwidth – it enables flexible, boundless and globally coordinated operations. It also allows the timely scaling of infrastructure in tune with business needs and helps in developing distribution models that let businesses reach their end-users directly.

Cloud broadcasting enables broadcasters to dramatically cut down the cost by taking content libraries and control rooms to the cloud. As broadcasting responds to the existing market dynamics of global content access and to the Internet as a distribution platform, cloud computing infrastructure is an alternative for TV networks and content owners to scale their business and make it competitive in terms of return of investment. By embracing the cloud, broadcasters can render their investments and businesses future-proof in the coming decades.

2.6.3 Employment Statistics

This section provides an overview regarding the labour force, labour demand in Malaysia and employment statistics of the Programming and Broadcasting service activities industry.

(a) Labour Force in Malaysia

Labour force can be defined as the population in the working-age group (in completed years at the last birthday), either employed or unemployed in the reference week. It is the sum of persons employed and the unemployed in the labour market. Together these two groups of the working-age population represent the supply of labour to produce goods and services in exchange for remuneration existing in a country at a given point in time. The concept and definition of the labour force in Malaysia are stated in Figure 2.5 below.

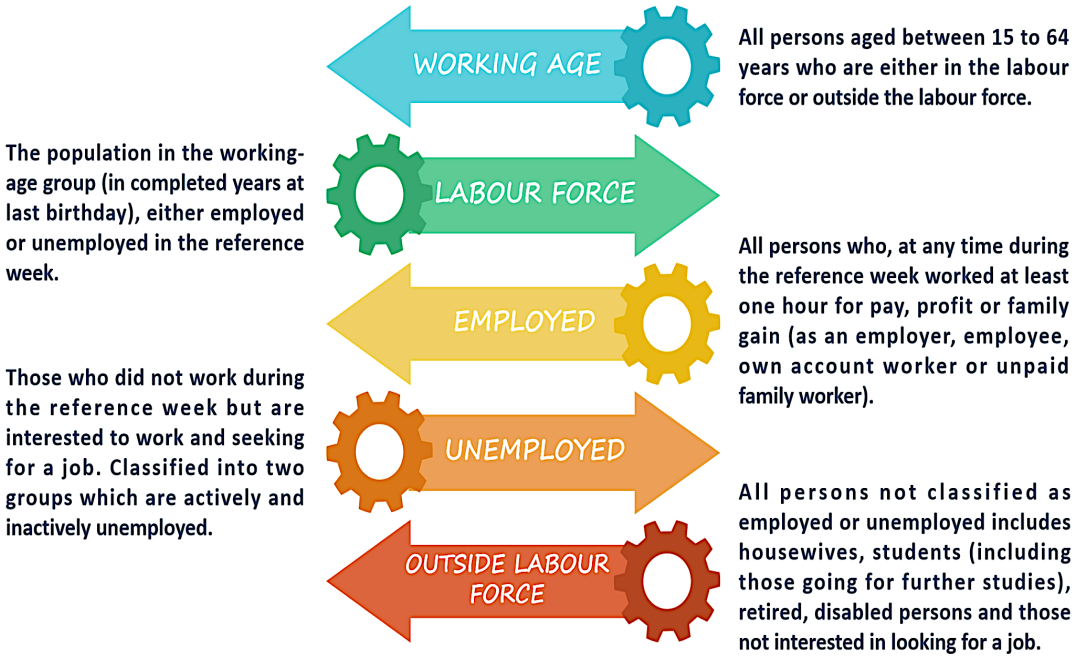


Figure 2.5: Concept and Definition of Labour Force in Malaysia

(Source: Department of Statistics Malaysia, 2021)

The labour market worldwide was disrupted in 2020 as the unprecedented event led to workplace closure and losses in working hours. Based on the new annual estimates by the International Labour Organization (ILO, 2021), global working hours in 2020 reduced by 8.8 per cent as compared to the fourth quarter of 2019, equivalent to 255 million full-time jobs. The working hours' losses can be associated with a higher number of employment losses and a reduction in working hours during the year. It was recorded that there were 114 million job losses in 2020 relative to 2019. The largest group of those who lost their jobs has shifted to inactivity with 81 million persons rather than unemployment which has escalated to 33 million persons. This has caused the global labour force participation rate for 2020 to drop by 2.2 percentage points.

Entering 2021, the labour market remained in a challenging situation following the rising number of COVID-19 new cases. Consequently, the Movement Control Order (MCO) was imposed beginning from 13 January 2021 in most states, namely Johor, Melaka, Pulau Pinang, Selangor, Sabah and the Federal Territories. During this phase, only five essential economic sectors were allowed to operate, whereas interstate and inter-district travel activities were restricted.

Additionally, operation hours for businesses were limited to restaurants, food stalls and food deliveries with a restriction of in-person dining services. Non-essential business outlets were temporarily closed, including night markets and bazaars, betting, spas and reflexology, salon, barber, self-service laundry, tailoring, clothes, optical and spectacles outlet as well as arts, entertainment and recreational activities2. In response to a surging number of COVID-19 cases daily, the MCO 2.0 was extended in most states until 4 February 2021. Indirectly, this situation has led to an uneven recovery momentum of the businesses and consequently the labour market. In addition, the flood disaster in the country, which has prolonged since December 2020 in certain states, including Johor, Kelantan and Pahang, also had impacted several business activities.

Thus, the labour force condition recovered modestly in January 2021, as reflected by the increase in the number of the labour force during the month. The rise in employed persons was much higher than those who were unemployed, hence signalling some improvement in the labour demand by businesses. The recovery momentum in labour supply was affected by the containment measure of the health crisis imposed during the month.

Observing the economic performance during the month, both exports and imports posted a decline of 6.4 and 2.7 per cent respectively after registering double-digit growth in the previous month. In addition, the Consumer Price Index and Producer Price Index continued to record a growth month-on-month.

The Labour Force Report for January 2021 describes the labour supply situation. The report will elaborate on the month-on-month changes to examine the immediate effects of the MCO to contain the spread of COVID-19. Users are advised to interpret the monthly statistics with caution since they are non-seasonally adjusted. In addition, annual changes from the same month of the previous year are also reported.

(b) Overview of Services Sector Labour Demand

Labour demand indicates the total labour that the economy is willing to employ at any given point in time. At the microeconomic level, labour demand by a firm refers to positions in the company; and through the process of hires and separations, the information of filled positions and vacancies can be estimated. The concepts and definitions of the statistics on labour demand in this publication are as in Figure 2.6.

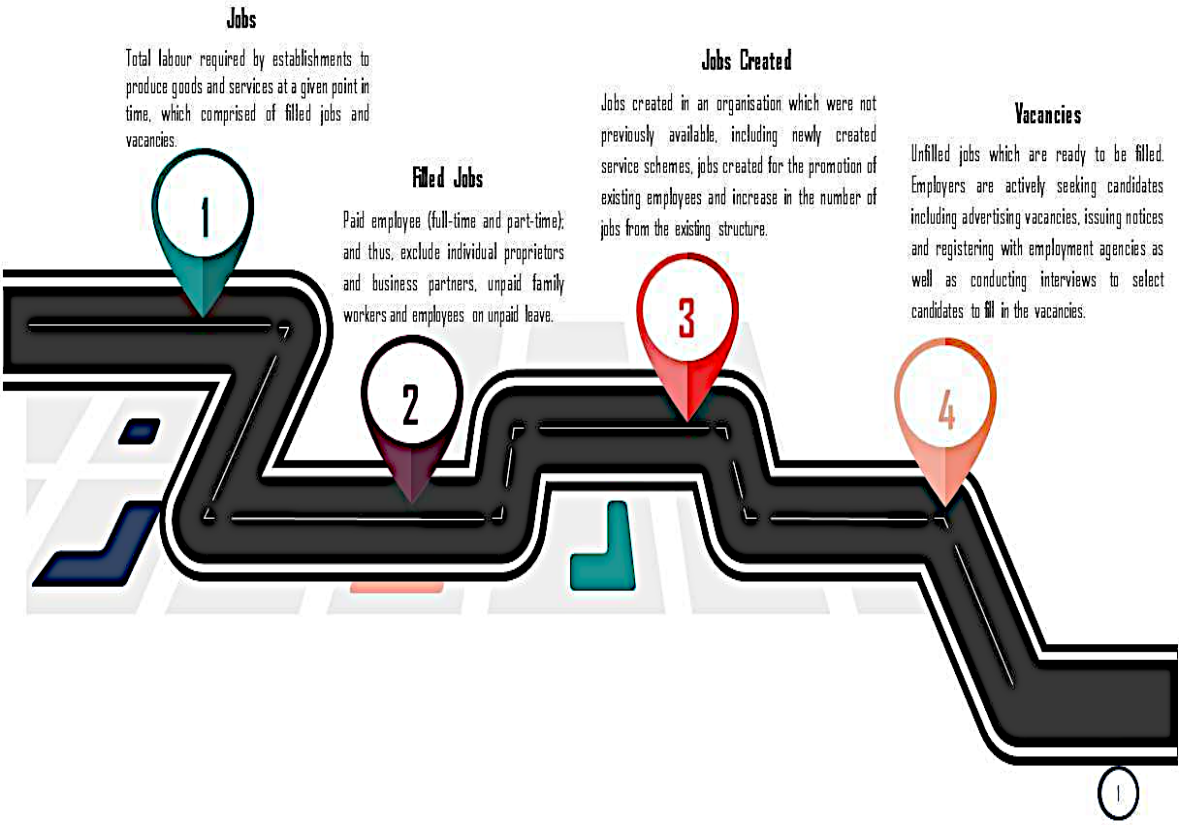


Figure 2.6: Concepts and Definition of the Statistics on Labour Demand

(Source: Department of Statistics Malaysia, 2021)

The number of jobs for the Services sector in the 1st Quarter of 2021 was recorded as 51.8 per cent (4,375 thousand), increased from 51.6 per cent (4,368 thousand) in the 4th Quarter of 2020. There were 4,348 thousand filled jobs at a rate of 52.6 per cent. This is an increase over the first quarter of 2020, where there were 4,341 thousand filled jobs in the Services sector.

In terms of share across skills category, jobs in the semi-skilled category recorded the highest share of 62.4 per cent (5,262 thousand), followed by the skilled category (24.5%; 2,067 thousand). A total of 13.1 per cent of jobs (1,109 thousand) were in the low-skilled category. These statistics are shown in Figure 2.7.

In 1st Quarter (Q1) 2021, jobs in the skilled category decreased by 14 000 from

Q1 2020 to 2,067 thousand jobs, comprising 98.0 per cent of filled jobs (2,025 thousand) and vacancies of 2.0 per cent (41.8 thousand). There were 5.3 thousand jobs created in this category during this quarter.

The semi-skilled category recorded 5,262 thousand jobs, declined by 84 thousand as against Q1 2020. The rate of filled jobs was 98.1 per cent with 5,163 thousand filled jobs, while the vacancies rate was 1.9 per cent with 98.7 thousand vacancies. This category recorded a total of 10.4 thousand jobs created.

As for the low-skilled category, the number of jobs recorded in this quarter was 1,109 thousand jobs, decreased 30 thousand year-on-year (Q1 2020: 1,139 thousand). Filled jobs made up 96.6 per cent of total jobs (1,071 thousand), while job vacancies were 37.4 thousand with a rate of 3.4 per cent. During this quarter, a total of 1.7 thousand low-skilled jobs were created.

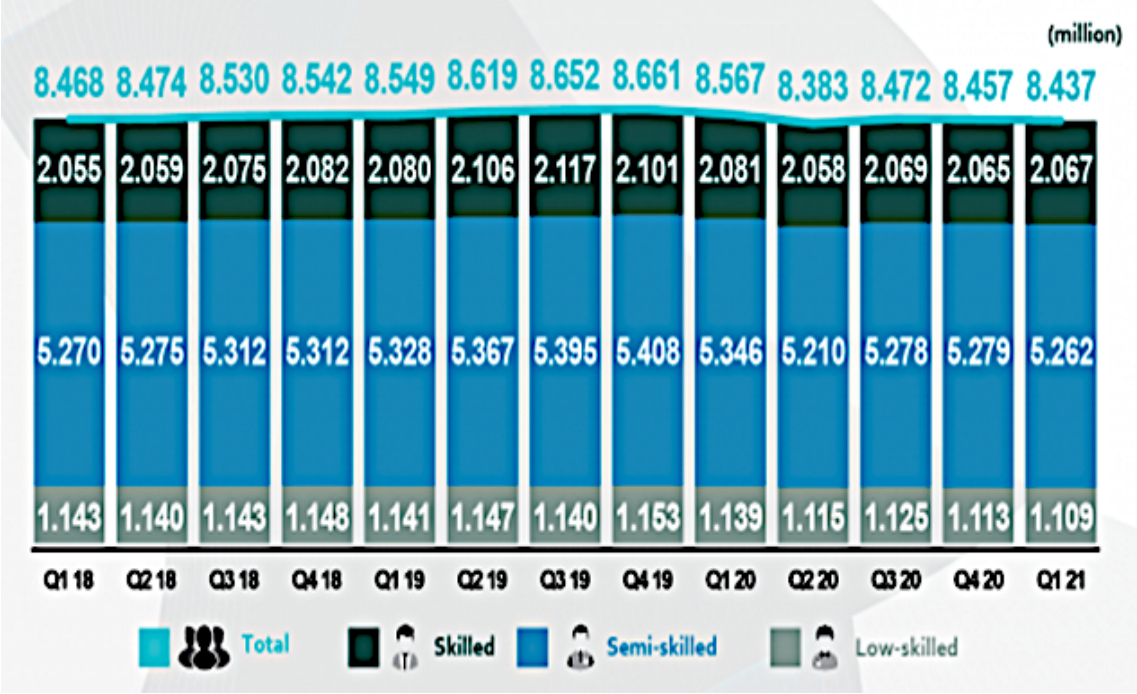


Figure 2.7: Job Position by Skill in Services Sector by Percentage Share
(Source: Department of Statistics Malaysia, 2021)

In conjunction with the increase in pandemic cases from March 2021 onwards,

economic activity for services has shown a decline as expected. If Q1 2021 recorded 4360.6 thousand, this value dropped to 4312.1 in the second quarter of this year. There was a slight increase from 2,062.4 (Q1 2021) to 2,064.3 (Q2 2021) for skilled workers. However, semi-skilled and low-skilled workers recorded statistical declines from 5,253.3 and 5,194.8 (Q1 2021) to 1,107.9 and 1,092.7 (Q2 2021). This information can be referenced in Figure 2.8 below.

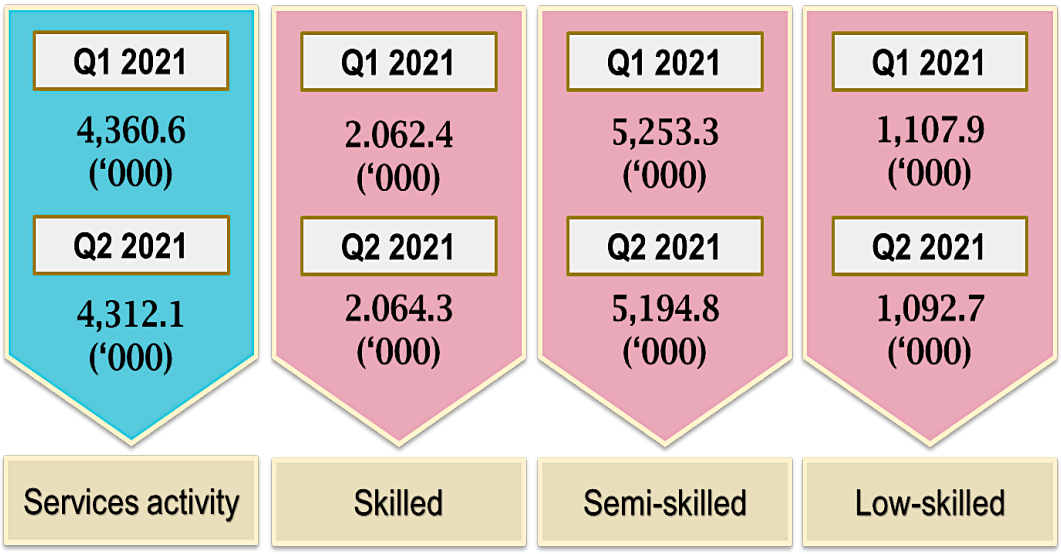


Figure 2.8: Job by Services Activity and Skill Category in Two Current Quarters
(Source: Labour Market Review Q2 2021, Department of Statistics Malaysia, 2021)

In conclusion, the growth of this industry clearly shows that the activities of programming and broadcasting services are one of the industries that promise improvement in the development of the country.

2.7 List of NOSS Relevant to MSIC 2008 Section J, Division 60

The DSD has not developed any NOSS related to Division 60, as NOSS Registry published on 21st June 2021. The absence of the NOSS title is provided in Table 2.6 below.

Table 2.6: Summary of NOSS Developed under the Division 60
(*Source: NOSS Registry 2021*)

MSIC Group	Corresponding NOSS/Level
601 **Radio broadcasting**	NIL
602 **Television programming and broadcasting activities**	NIL

2.8 Overview with Developed Country

This section provides an overview of developed countries regarding the Programming and Broadcasting services industry, where it will discuss the Programming and Broadcasting Industry growth in developed countries. The detailed comparison can be referred to in Chapter 4.

Many countries have decided to cease analogue transmissions to switch to digital. This initiative is mainly driven by the government, with the switchover to digital mandated at a specific date to propel user take-up. The preference is for the switchover to be affected as early as possible to free up the spectrum from the less efficient spectrum usage of analogue systems to cater to more bandwidth-hungry content delivery and applications.

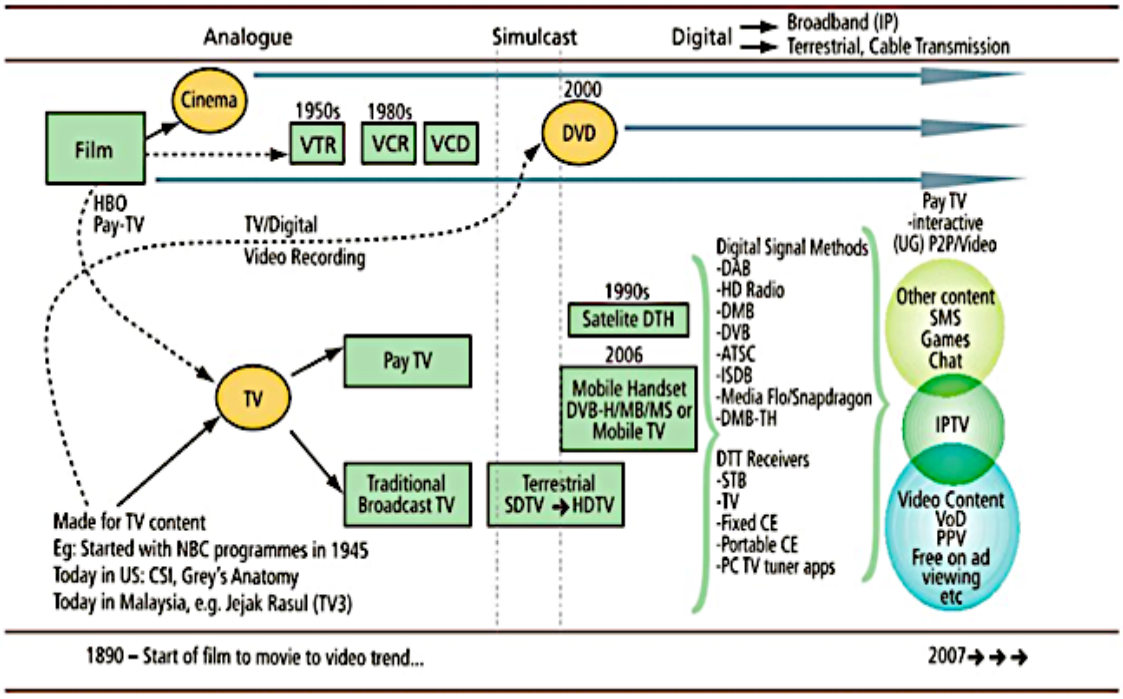


Figure 2.9: The Revolution of TV Transmission from Analog to Digital (*Source: History of Film & TV, TelecomAsia News Developments, Mobile Developments, ABI Research*)

The UK, which started the transformation as early as 1998, had more than 7 million subscriber homes in 2006. Its digital service has a broad range of channels and is reported to be integrating with British Telecom IPTV services to provide value-added services such as VoD. DTT operators in other countries are looking to leverage revenue from digital services by including high definition (HD) programming and personal video recording (PVR). Services to Lock-in Consumer Demand Amongst the key drivers for transition to digital are, as always, consumer demand. A digital platform shifts their lifestyle to include viewing a wide range of high-quality channels/programmes, with improved formats such as widescreen displays and HDTV, and empowerment through interactive services such as opting to view or not to view advertisements. Amidst all this are eventual lower costs and a wider choice of services.

The service providers, on the other hand, are driven by the higher revenues that can be derived from digital services. Apart from retaining customers through innovative programme packages and services, there is enablement to provide

premium or value-added services through access to the Internet for home shopping banking; digital devices equipped with Electronic Programme Guide (EPG) for programme monitoring that can facilitate add-ons in terms of advertisements or special targeting of individual user market.

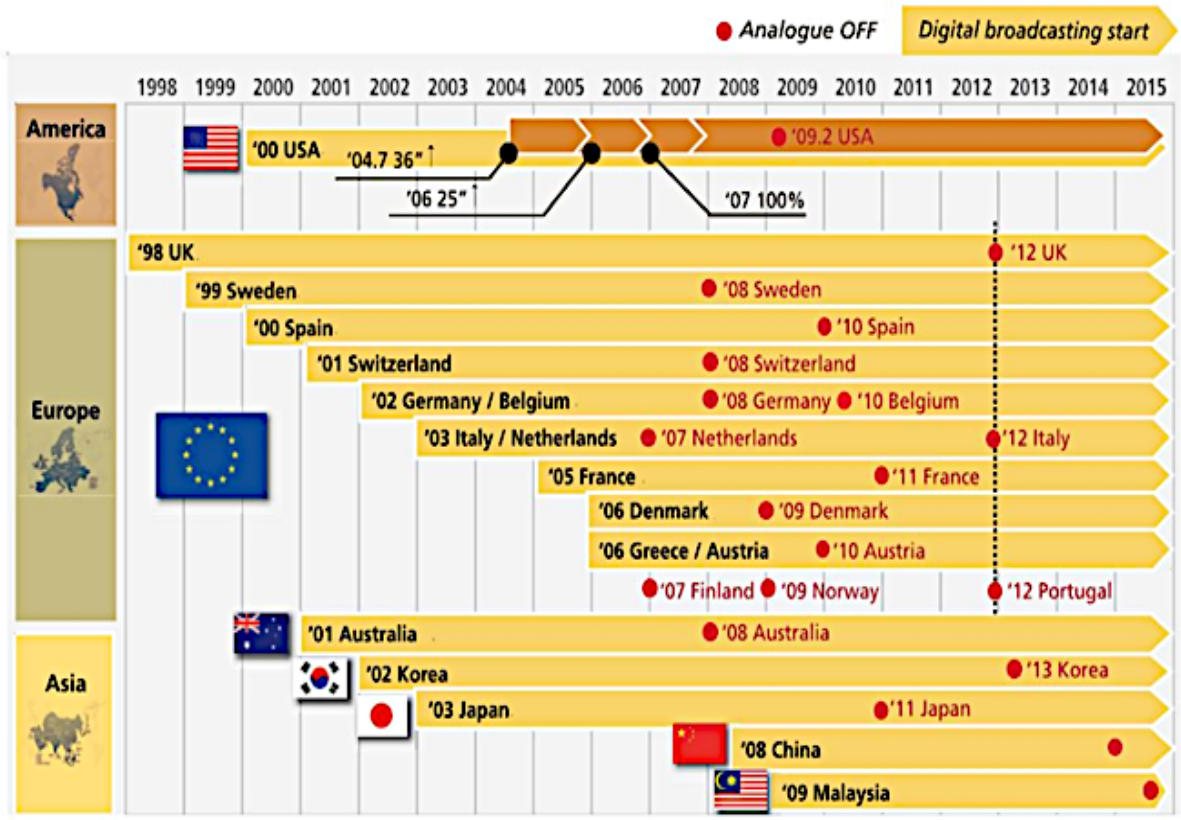


Figure 2.10: Digital Broadcasting Transition by Different Countries (*Source: Samsung Electronics, 4th ASEAN Digital Broadcasting Meeting, 29 March 2007*)

When digitalisation started in the late 1990s, many were doubtful of the take-up. Viewers' perspective cited that the transition involved expensive digital equipment to purchase; consumers would require new subscription services to watch TV, and operators require standards that are compatible with the services offered. In addition, consumers were somehow at ease with what they had then and were not willing to pay a premium for it.

Now, as market forces and consumer awareness are eventually driving the digitalisation of broadcasting and as each country follow its own switchover

path, governments in developed countries have formed action task groups to work closely and coordinate with platform operators, equipment manufacturers, broadcasters, and retailers to address issues of a smoother transition which includes standardisation of digital equipment and lower prices for decoders. For example, in the US, the government introduced a converter coupon programme subsidy for the purchase of a set-top box (STB) for US households and set up online information of digital products for consumers to learn on every aspect of the transition. UK and Australia are also at the forefront to educate consumers through their respective websites.

2.9 The Relevancy of Industry to IR4.0

The IR4.0 is a technological revolution that spans the period between the First and Third Industrial Revolutions. In a nutshell, the First Industrial Revolution mechanised production using water and steam power. Electric power was utilised during the Second Revolution to facilitate mass production. The Third utilised electronic and information technology to automate the manufacturing process. Since the middle of the twentieth century, the Third Industrial Revolution, also known as the digital revolution, has been building on the foundation of the Fourth Industrial Revolution. A fusion and convergence of technologies that cut across the physical, digital, and biological spheres characterise this phase of technological development. The Ministry of International Trade and Industry (MITI) has identified the main pillars of IR4.0 and a description of each in Table 2.7.

Table 2.7: The 9 Pillars of Industry Revolution 4.0's
Pillars Acknowledged
(*Source: Ministry of International Trade and Industry (MITI)*)

NO.	IR 4.0 PILLARS	BRIEF DESCRIPTION
1.	Autonomous Robots	Coordinated and automated actions of robots to complete tasks intelligently, with minimal human input.
2.	Big Data Analytics	The analysis of ever-larger volumes of data. Circulation, collection, and analysis of information is a necessity because it supports productivity growth based on a real-time decision-making process.
3.	Cloud Computing	Storing and accessing data and programs over the Internet instead of your computer's hard drive.
4.	Internet of Things (IoT)	All machines and systems connected to the production plant (as well as other systems) must be able to collect, exchange and save these massive volumes of information in a completely autonomous way and without the need for human intervention.
5.	Additive Manufacturing (3D printing)	Use in prototyping, design iteration and small-scale production and often described as "rapid prototyping" - produce the desired components faster, more flexibly and more precisely than ever before.
6.	System Integration	The process of linking together different computing systems and software applications physically or functionally to act as a coordinated whole via IoT.
7.	Cyber Security	With the increased connectivity and use of standard communications protocols, the need to protect critical industrial systems and manufacturing lines from cyber security threats is increasing.

8.	Augmented Reality	Augmented-reality-based systems support a variety of services, such as selecting parts in a warehouse and sending repair instructions over mobile devices - providing workers with real-time information to improve decision making and work procedures.
9.	Simulation	Simulations will leverage real-time data to mirror the physical world in a virtual model, which can include machines, products, and humans. This allows operators to test and optimize the machine settings for the next product in line in the virtual world before the physical changeover, thereby driving down machine setup times and increasing quality.

The broadcasting industry is confronted with numerous challenges, ranging from recalls to meeting customer demands. Industry 4.0 will transform broadcasting services into predictors rather than providers of standard services. This will result in significant time and financial savings for those who invest in the technology.

IR 4.0, artificial intelligence, and machine learning are upending traditional manufacturing, distribution, and retailing models, as well as a variety of other business practices across industries and sectors. The television broadcasting industry in Malaysia is no exception, posing both challenges and opportunities. Predicting audience needs and demands or preferences can increase profits by catering to exactly what audience will watch and listen to the broadcasting content.

For example, IR 4.0 plays an important role in the broadcasting industry by collecting data that later can be used to formulate and develop necessary content based on the data collected. It will benefit the industry by providing digital content that can be transmitted via various channels of digital media.

IoT is involved in cashless payment methods, which include e-wallet, RFID, Scan, and order QR code application, Mobile scan code order, streaming account. In contrast, autonomous robots are focusing on improving efficiency and technology in the services area. This may include a conveyor for the production team to facilitate the process of developing broadcast content for the audience.

2.10 Conclusion

The Broadcasting sector is an important and strategic part of the Malaysian services industry. The findings on the industry landscape, MSIC definition of the job area, and the NOSS that have been developed give an insight into the overall picture of the industry. These inputs pave the way and guide the next course of action in restructuring the occupational structure, identifying skills in demand and critical job titles. The requirements of the Industry Revolution as well would have an impact on the future of the manpower in this area.

As to materialise the above, certain research methodologies were employed. The description of research strategies and approaches are discussed in the next chapter.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter provides a detailed description of the research methodology utilised in the study. It encompasses the overall review of the research approach and summary. In developing a better understanding regarding the current development of the telecommunications industry in Malaysia, a combination of research methods or the multi methods were utilised in the study to ensure the data collection and findings are relevant to the research investigation.

To get an in-depth understanding of the results obtained from the qualitative data, a quantitative approach was deployed. Document analysis and Focus Group Discussion (FGD) with industry experts are also adopted as part of the methodology as it facilitates understanding of key factors that would influence the industry. Therefore, the complementary nature of both qualitative and quantitative methods seems to be a very practical way to reflect the realities of the broadcasting industry under study.

3.2 Research Approach

There are 7 phases of research approach was subjected in this research as discussed briefly below:

Phase 1: Identification of research problem: Before going through the research, the research problems were identified to obtain an initial understanding of why it is important to research concerning occupational structure for the broadcasting industry. The research problem was gathered through secondary data and literature review.

Phase 2: Document analysis: Current market scenario and growth were identified through reviewing relevant information and data available from various sources such as MCMC reports, published articles, newspapers, and websites.

Phase 3: Preparation of qualitative data procedure: The FGD protocol was in the form of a semi-structured interview. It was prepared in line with the objective of this study. The selection of respondents is from industry experts and practitioners.

Phase 4: Quantitative instrument building: The questionnaire was verified in a focus group discussion with the guidance of industry experts to ensure the elements in the questionnaire are relevant to the current industry scenario.

Phase 5: Quantitative data collection: After the questionnaire validation process, the data collection was deployed. An Internet survey was carried out through the snowball sampling technique.

Phase 6: Data analysis for the qualitative and quantitative data approach: descriptive analysis was utilised to describe issues related to the demand for the skills, jobs title, and critical job titles for the broadcasting industry.

Phase 7: Discussion and recommendation: The discussion of the gathered data was performed, and the relevant recommendation was implemented to ensure the objective of the study was achieved and the collected data were relevant to the current telecommunication industry scenario.

This study employs three approaches to achieve the objective of the study as follows: a) Document Analysis; b) Focus Group Discussion (FGD); and c) Survey.

3.2.1 Document Analysis

This method requires a thorough study of current literature that answers a specific issue. The review seeks, identifies, chooses, appraises, and synthesizes pertinent research findings in a systematic, repeatable, and bias-free manner.

Document analysis is more thorough than a literature review since it covers both published and unpublished (or grey) material. Grey literature is an important component of a systematic review that adds value to it. This is since grey literature is often more current than published material and is more likely to be free of publication bias. Unpublished studies, reports, dissertations, conference papers and abstracts, and governmental research are examples of grey literature. This method is intended to provide a broad overview of the Programming and Broadcasting Services industry's current state and prospects (such as industry trends and prospects). At the sectoral level, it offers a macroeconomic picture of the industry.

(a) Data Collection Strategy

There are three main sources for data collection:

i. Economic database
ii. Database from other agencies
iii. Literature review

For the Economic Database, there is some information related to labour that is highly relevant to this study. Thus, the following information has been requested from the Department of Statistics Malaysia (DOSM).

i. MSIC 2008
ii. Occupation categories at 1-digit MASCO
iii. MCMC Report
iv. Productivity Report

Information from the Economic Database serves two purposes:

i. To give an overview of the present state of the Programming and Broadcasting
   Services sector and its prospect
ii. When analysing data from the online survey, they will be used as control figures and baselining databases.

As well as the Economic Database, datasets from various agencies (both domestic and foreign) important to the Programming and Broadcasting Services sector will be gathered and analysed. According to our first observations, the following database includes industry-relevant data.

i. Local database – DSD
ii. International database – Organization for Economic Co-operation and
iii. Development (OECD), World Bank and European Union (EU).
iv. Database in the form of online resources and published reports collected from the local and international agencies.

For the literature review, relevant scientific research publications related to the industry have been reviewed. Database and findings from the publications and reports are emphasised in the review process.

(b) Analysis

Based on the three databases, the following analysis is carried out.

i. Examined the economic performances of the industry by looking at several macroeconomic indicators (such as GDP, employment, and output).

ii. Analysed the industry outlook in relation to regional and global perspectives.
iii. Determined the profile of the current and future workforce (such as occupations, and salaries and wages).
iv. Initiated technological development in the industry (such as robotic & automation as well as elements of IR 4.0).

3.2.2 Focus Group Discussion

A series of industry engagement sessions based on focus group discussions (FGDs) were conducted to facilitate an in-depth discussion of the issues facing the sector's labour market now. Participants in the FGD discussed the Occupational Structure (OS), Occupational Description (OD), in-demand skills, job titles, and critical job titles; curriculum and training programme evaluation; accreditation and qualification using the NOSS and MQA frameworks; potential workforce challenges; prospects; and strategic recommendations.

(a) Population and Sampling

A total of 13 industry experts were chosen for FGD. DSD has appointed and commissioned the expert groups. In terms of expertise, they have at least seven years of industry experience and work in a company related to the Programming and Broadcasting Industries. Among the agencies involved in the FGD sessions are Radio Televisyen Malaysia (RTM), Media Prima Berhad, apart from the production house and online radio broadcaster representatives.

(b) Data Collection Strategy

As part of the process of gathering information, a brainstorming technique was used, which was attended by members of the development panel. The session has revealed the various sub-sectors and areas of interest. The collection of information during the literature review was also discussed and presented to these panels.

Later, the information gathered was used as input into the development of the Occupational Framework (OF) for the specific sub-sectors. Workshops and interviews were conducted as part of the process of developing the Occupational Framework for the broadcasting industry. Follow-up discussions with industry experts were held in smaller groups to ensure that the findings of the OF were supported by evidence.

The dates, venue and activities of the industry engagement sessions involving industry players, government agencies and subject matter experts are as below:

Table 3.1: List of Industry Engagement Sessions

<table>
<tr><th>Date</th><th>Venue</th><th>Activity</th></tr>
<tr><td>30 July 2021</td><td>Google Meet</td><td>● Identification and confirmation of preliminary literature search
● Identification of Critical Skills and Critical Jobs demand in Programming and Broadcasting Industry
● Overview on challenges faced by Broadcasting Industry in recent days</td></tr>
<tr><td>6 August 2021</td><td>Google Meet</td><td rowspan="3">● Confirmation of Critical Jobs and Skills in the wake of IR 4.0 technologies
● Review the curriculum changes and needs of new training
● Identification and confirmation of Occupational Structure (OS)
● Development and confirmation of Job Description</td></tr>
<tr><td>3 September 2021</td><td>Google Meet</td></tr>
<tr><td>17 September 2021</td><td>Google Meet</td></tr>
</table>

The semi-structured questions were developed for FGD based on OS, OD, skills in demand, jobs title, critical job titles, and other related issues.

Five main semi-structured questions were constructed as follows:

1) What will be the Malaysian Occupational Structure (OS) for the Programming and Broadcasting Sector look like?
2) What will be the job descriptions for each job title?
3) How to determine the demand for industry skills?
4) How to determine the relevant jobs title that is in line with IR4.0?
5) How to determine the critical jobs for the industry.

(c) Analysis

The following analyses are carried out for FGD sessions.

i) Analyse the overall industry and an important division's workforce challenges.

ii) Investigate the available talent in the Programming and Broadcasting Services industry according to NOSS and MQA standards.

iii) Review the curriculum and training program relevant for the Programming and Broadcasting industry workforce occupations in coordination with accreditation (MQA and MOSQF) and training providers, comprising local academic institutions (universities or colleges), vocational and other training entities.

iv) Analysis of the future trend of the occupational demand by various skill categories, including TVET related occupations.

3.2.3 Survey (Questionnaire)

For this study, a survey was used to accomplish the four keys critical information, namely competency in demand, jobs in demand, emerging skills, and related issues. The survey was also deployed to consolidate the information gathered from document analysis and focus group discussion. Google form was used for the survey. The survey was distributed to the related organisation based

on the organisational level.

In addition, according to Ary, Jacobs & Razavieh (2002), generally, there are six steps involved in a survey using questionnaires:

i. Planning: a survey in the form of a survey begins with questions that the researcher believes can be answered.

ii. Defining population: identify the focus of the study to obtain the informational results.

iii. Sampling: identifying samples from population studies based on sampling framework.

iv. Forming an instrument. It is the main part as it will be used to obtain data from samples.

v. Conducting a study: distributing research instruments to research samples.

vi. Data processing: descriptive analysis and reporting on research findings.

The survey form was divided into three sections as follows:

Section 1: Emerging Skills

This section is trying to determine the readiness of industry players and workers in the advent of Industry 4.0. The technology drives or pillars of IR4.0 are listed, and the respondents must decide the relevancy of each element in their line of duty.

Section 2: Jobs in Demand

This section is aimed to determine which category of workers is in shortage supply or oversupply. The category is based on MASCO, such as skilled workers, semi-skilled workers, and low skilled workers.

Section 3: Related Issues

This section explores the common issues surrounding the industry. The respondents are asked to give open-ended feedback on the issues and challenges related to the industry.

a) Sampling

Sampling is an essential process of selecting the right person, objects, or representatives for the entire population. Firstly, to determine the sample size, there were a few factors taken into consideration. The appropriateness of study participants, the manner they are selected, and the way they are assigned to the groups can subsequently affect the study results and conclusion.

This study adopts snowball sampling. Snowball sampling is a recruitment technique in which research participants are asked to assist researchers in identifying other potential subjects. This sampling design is also most suited for this study because representatives identified from broadcasting industries recruit other participants when the actual participants are hard to find.

b) Proposed Samples

The population of the industry is large and will require a significant financial budget if a nationally representative survey is the primary target. The consultation with related associations concluded that a nationally representative survey was not feasible. Instead of aiming for a nationally representative sample, the survey aims to increase participation rates from industries that are mostly centralised within the Klang Valley region.

Participation consisted of two categories of the government sector and private organisations. This study identifies RTM and FINAS as government agencies located in the Klang Valley. On the other hand, ASTRO, Media Prima are suitable representatives as they have big names in the broadcasting industry and are registered under Suruhanjaya Syarikat Malaysia (SSM). To achieve the

target number of samples, this study also obtained responses from private production houses and NGOs that also operate in the Klang Valley.

c) Data Collection Strategy

Through the searching and communicating process, this study identifies initial informants from different agencies as mentioned in subtopic (b) who are willing to participate in the survey. Information from the primary data source was collected and tabulated. The process moves on to other individuals who the primary data source has referred to that meet the eligibility criteria (and then ask those individuals to recruit). These referrals make it easy and quick to find subjects as they come from reliable sources. These steps are repeated until the needed sample size is found.

Questionnaires were distributed to them online once all subjects had the information. In short, this study has carried out the data collection from respondents within two weeks. The data in Google Forms is viewed on Google Sheets and scrutinized one by one to ensure no information is left out. The software then works for descriptive analysis to obtain demographics, generate frequency values as well as informative charts. The results have achieved the four main objectives of this study, namely competency in demand, jobs in demand, emerging issues in broadcasting and the competency level for jobs identified in the sector.

d) Analysis

The following descriptive statistical analyses were performed for the online survey:

i. Analysis of critical occupations and future jobs identified by the industry.
ii. Analysis of occupational structure by various skills category including IR 4.0 related occupations.
iii. Analysis of challenges and opportunities faced by the Programming and Broadcasting activities.

3.3 Conclusion

In this section, the justification of each selected research methodology was discussed. The selected research methodologies are document analysis, survey questionnaire and focus group discussion.

Document analysis was chosen due to its efficiency and effective way of gathering data because documents are manageable and practical resources. Documents are commonplace and come in a variety of forms, making documents a very accessible and reliable source of data. Obtaining and analysing documents is often far more cost-efficient and time-efficient than conducting research and experiment. Document analysis was a suitable method for this research because this research requires more information such as current statistics for related industries and the growth of the industry.

More than that, the survey was deployed in this research because questionnaires may be taken anonymously or in private. This method may be more effective for gathering sensitive information or when you want statistical data about what most of a certain group of people think. The more concise the questionnaire and the more specific the group of respondents are, the more effective the results will be.

Focus group discussion was deployed in this research due to the free and open discussion among the respondents' results in the generation of new ideas that can be very useful for decision-making. It is also a fast way to gain the needed information regarding job titles in the related industry. This approach is time-saving and an effective way to gather information from many sources.

CHAPTER 4

FINDINGS

4.1 Introduction

This chapter elaborates on the findings of the study. The findings revolve around the objectives set for the study, namely, to produce Occupational Structure (OS) Programming and Broadcasting Activities to determine competencies in demand Programming and Broadcasting Activities, to identify critical job titles in Programming and Broadcasting Activities; to identify job titles relevant to IR 4.0 and to identify Occupational Descriptions (OD) of critical job titles from the OS.

4.2 Findings Analysis

This section provides findings analysis from the survey and Focus Group Discussion (FGD) regarding the Programming and Broadcasting Activities industry. There are four sections discussed in this section, namely jobs in demand, competencies in demand, emerging skills and related issues for Programming and Broadcasting Activities.

4.2.1 Demographics of Participants

A total of 13 experts trained in programming and broadcasting activities participated in the FGD series. They have been industry players for over ten years and have extensive experience in the television and radio sectors. According to the organisation breakdown, RTM formed the most substantial composition (38%), private companies or production houses (23%), followed by Media Prima and UiTM (15% for each) and

FINAS (8%).

4.2.2 Discussion of Results

The identified job areas and job titles for the Programming and Broadcasting Activities─were obtained through FGD with industry experts during the development workshop. Based on the discussion held during the development workshops, the industry experts had identified that the Programming and Broadcasting Activities OF were discussed based on the two main groups in Division 60, which were: -

(a) Radio Broadcasting activities
(b) Television Programming and Broadcasting activities

There are 13 total respondents recorded after the data collection exercise was performed. Based on the number of target respondents in Table 3.1 in Chapter 3, the number of actual respondents collected is higher than the number of target respondents, which concluded that the number of respondents is sufficient to represent the industry.

4.2.3 Jobs in Demand

Jobs in Demand or critical job titles can be defined as the job titles that are hard to fill, job titles that are strategic to the industry and job titles that require specific skill experience. Based on the FGD with the expert panels of the industry, for this section, certain categories of skills corresponding to the level of MQF are used in this research, as listed in Table 4.1 below.

Table 4.1: Category of Skills Correspond to the Level of MQF

Category of skills	Low Skilled Worker	Semi-Skilled Worker	Skilled Worker
Level	1	2 & 3	4 – 8

Based on the focus group discussion, jobs in demand, factors contributing to the demand and specific requirements and skills for the Programming and

Broadcasting Industry were identified and listed in Table 4.2 below.

Table 4.2: Jobs in Demand for Programming and Broadcasting Activities

No.	Category of Workers	Factor(s) contributing to the demand	Specific requirements and skills
1	Semi-Skilled Worker (Refer to Annex 4)	a) Difficulties in recruiting local workers due to terms and conditions of the job being offered b) Salary scheme c) Working hour d) Work pressure e) Lack of communication skills/ language barrier f) Lack of certification (safety, technical) g) Industry saturation h) Technology advancement i) Job requirement – frequent travelling, work condition	i) Demand permanent job ii) Normal working hours iii) Able to adapt to work pressure
2	Skilled Worker	a) Government policy b) Apprenticeship c) Incentives / Skills development program d) Work environment e) Technology advancement	i) Creativity in decision making ii) Safety regulations iii) Adaptability to new media

4.2.4 Competencies in Demand

This section provides competency in demand in the Programming and Broadcasting Industry. Competency in demand is defined as a specific set of skills in a particular job that is highly required by the current industry.

There are 20 competencies in demand identified in FGD, which are listed in Table 4.3. The factors contributing to the demand and specific requirements and skills can be referred to in Table 4.3.

Table 4.3: Competencies in Demand for Programming and Broadcasting Industry

NO.	COMPETENCY IN DEMAND	FACTOR(S) CONTRIBUTING TO THE DEMAND	SPECIFIC REQUIREMENTS AND SKILLS
1	1) Creativity Skills 2) Technical Skills 3) Communication Skills 4) Administration Skills 5) Leadership Skills 6) Computer Literacy 7) Writing Skills 8) Safety Skills 9) Sales and Marketing 10) Research Skills 11) Editorial Skills 12) Video Editing Skills 13) Animation Skills 14) Planning Skills 15) Product Knowledge 16) Resource Management 17) Regulatory Knowledge 18) Self-development 19) Analytical Thinking 20) Interview Skills	i) Changing in the technology adoption ii) Lack of technical management skills iii) New courses offered iv) Automation v) Emerging of new digital platforms vi) Changing in the market demand vii) Demand in creative content viii) Multiple platform demand ix) OTT x) Workplace safety	i) Training on related or similar areas ii) Review of training syllabus at training centre/provider iii) Joint venture with industry player to provide facilities and exposure iv) Entrepreneurial skills/courses/ workshop

		xi) Big Data and Cloud xii) Economy situation	

Based on the analysed survey data, it can be concluded that the most critical skills in Programming and Broadcasting activities is Writing and Editorial Skills, followed by Communication Skills. The least critical skill identified is Marketing and Business skills. Other skills that are somewhat important to this industry are ethics and analytical skills. The result of the survey is shown in Figure 4.1 below.

The findings are consistent with the analysis obtained from FGD sessions, particularly when identifying factors associated with the types of skill sets needed by the workforce in this sector.

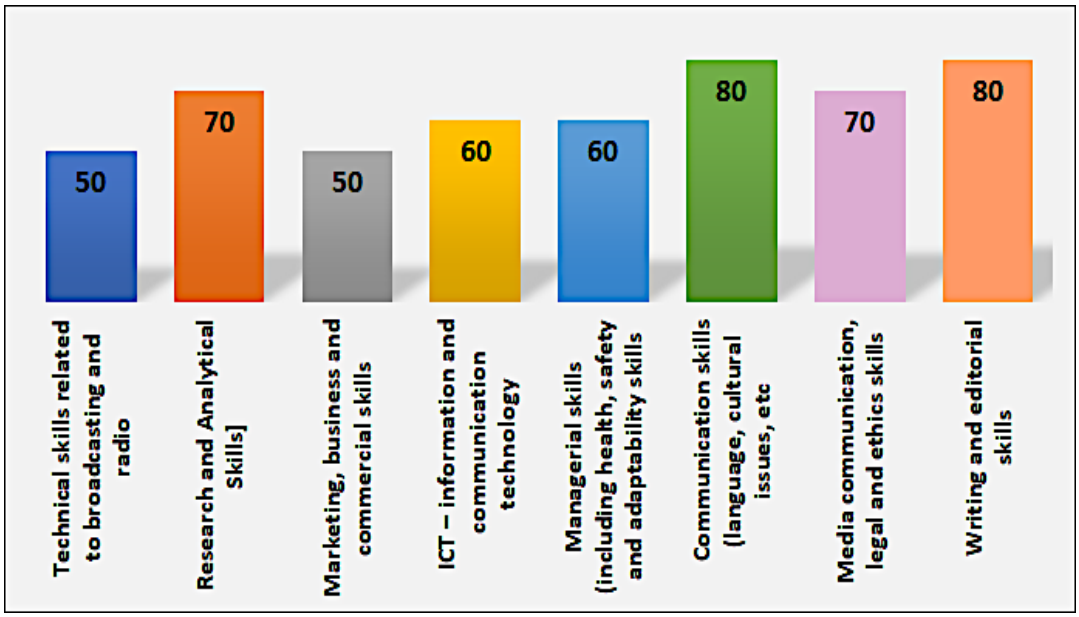


Figure 4.1: Critical Skills for Broadcasting Industry

Figure 4.2 indicates two main job titles, Executive Producer and Editor-in-Chief, to be the most skilled job in the Editorial Job Area under Programming and Broadcasting Activities. These two types of work require specialized training and a complete set of technical know-how and vast job experience in order to be highly skilled in the job area. Writer, Assistant Producer and Assistant Editor are

deemed to be more appropriate to be categorised as semi-skilled workers. It does not require specific advanced training or specialised skills, but it does require more skills than an unskilled labour job.

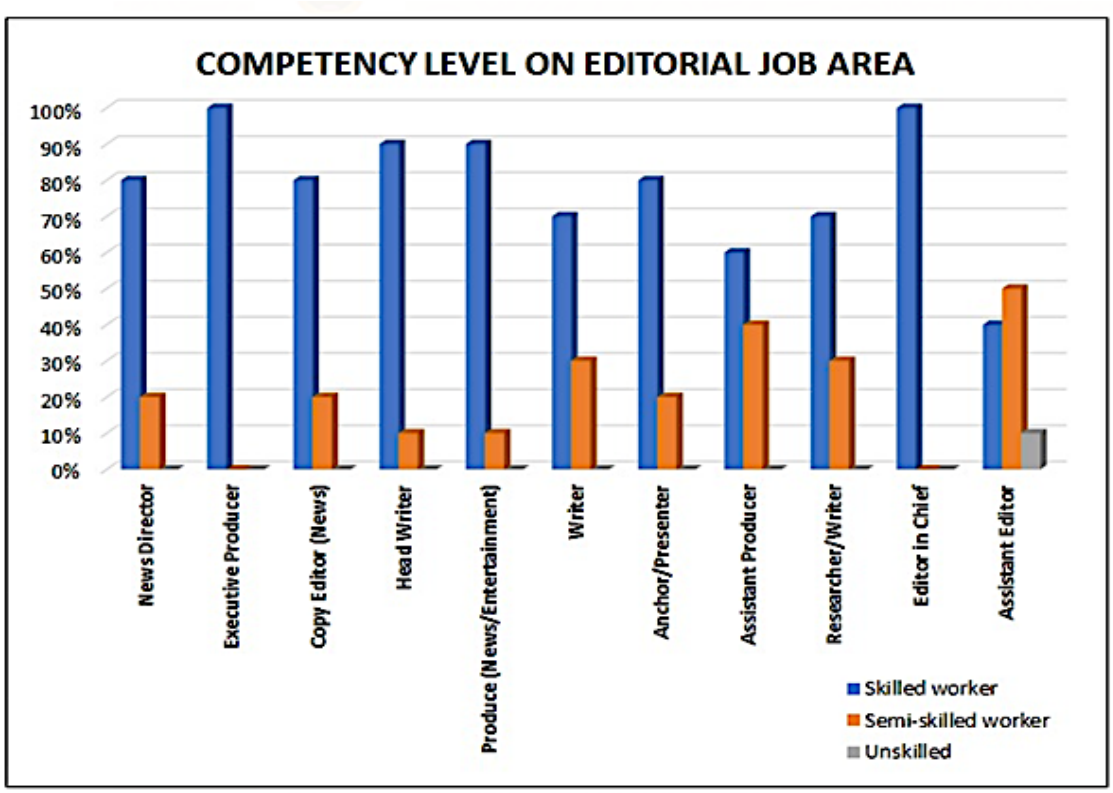


Figure 4.2: Competency Level on Editorial Job Area

Figure 4.3 indicates Editor-in-Chief to be the most skilled job in Programming Job Area under Programming and Broadcasting Activities. Editor-in-chief requires specialised training and vast job experience to be highly skilled in the job area. Librarians and Translators are deemed to be more appropriate to be categorised as semi-skilled workers, and they do not require specific advanced training or specialised skills. However, other jobs do require more skills than unskilled labour jobs.

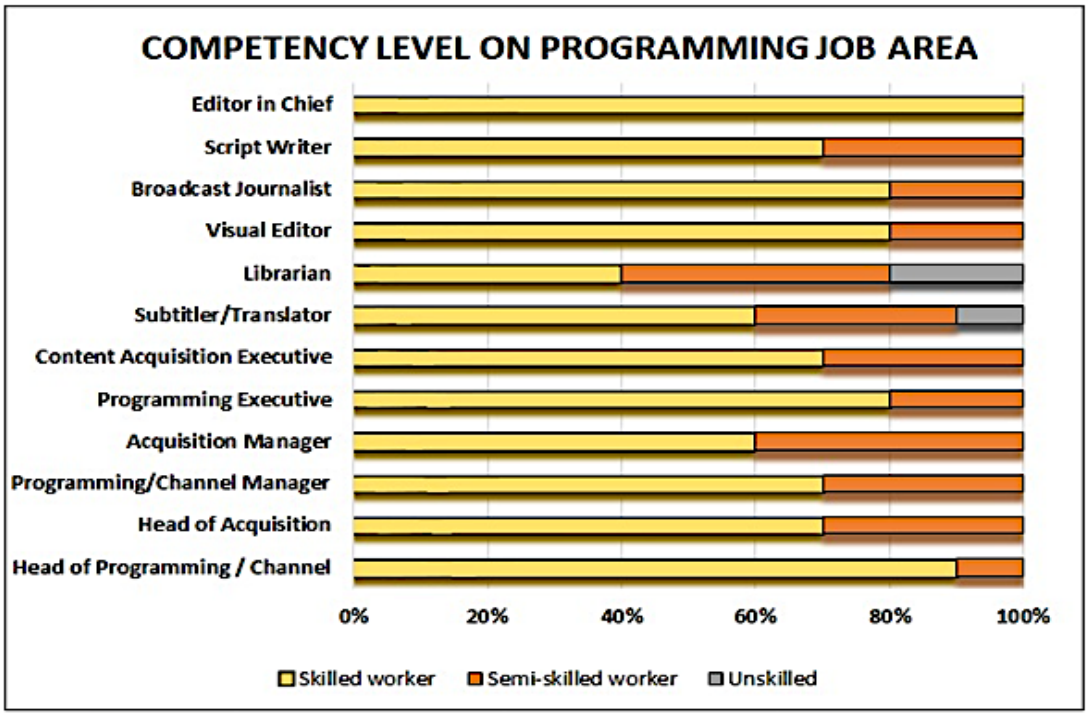


Figure 4.3: Competency Level on Programming Job Area

Figure 4.4 indicates four main job titles, namely Broadcast Engineers, Producer, Program Director and Commercials Producer to be the most skilled job in Radio Job Area under Programming and Broadcasting Activities. These four types of work require specialised training, a complete set of technical know-how and vast job experience in order to be highly skilled in the job area. Reporter, Copywriter and Announcer are deemed to be more appropriate to be categorised as semi-skilled workers. It does not require specific advanced training or specialised skills, but it does require more skills than an unskilled labour job.

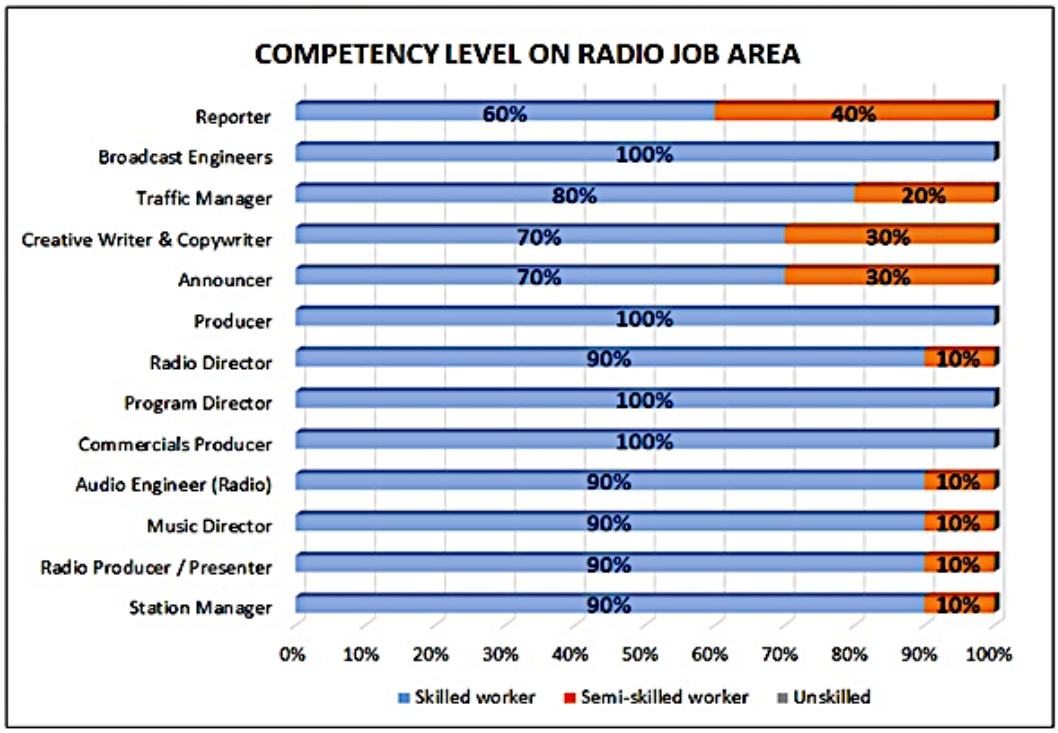


Figure 4.4: Competency Level on Radio Job Area

Figure 4.5 indicates four main job titles, namely Social Media Manager, Event and Programming, Multi-Platform Content Editor and Digital Content Producer, to be the most skilled job in Other Job Area under Programming and Broadcasting Activities. These four types of work require specialised training, a complete set of technical know-how and vast job experience in order to be highly skilled in the job area. Copywriters, Researchers and Safety officers are deemed to be more appropriate to be categorised as semi-skilled workers. It does not require specific advanced training or specialised skills, but it does require more skills than an unskilled labour job.

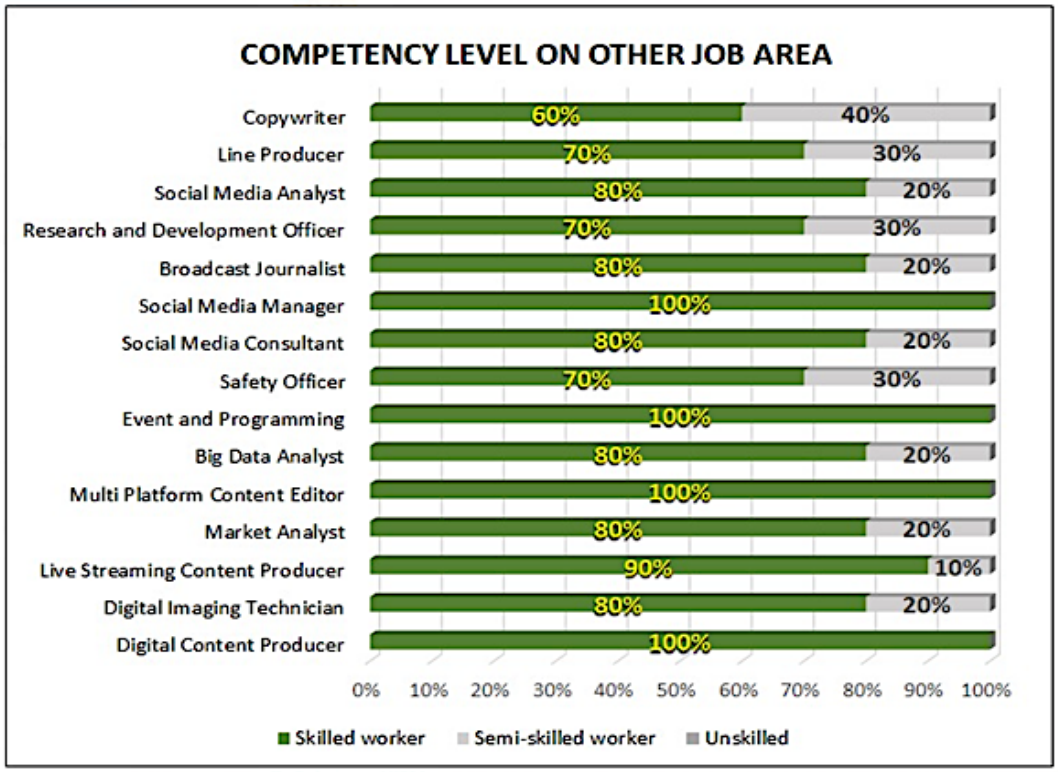


Figure 4.5: Competency Level on Other Job Area

Table 4.4 elaborates the list of competencies obtained from the Focus Group Discussions on the type of competencies required by the workers in Programming and Broadcasting activities. The expert panels highlighted the top 5 skills demanded by skilled workers are creativity, leadership, communication, sales and editorial. The remaining skills are also demanded from semi-skilled workers to ensure the smooth operation of the related activities in the industry.

Table 4.4: List of Competencies in Programming and Broadcasting Industry

NO.	COMPETENCY
1	**Technical skills** The qualities acquired by using and gaining expertise in performing physical or digital tasks.
2	**Communication skills** Abilities to use when giving and receiving different kinds of information. Communication skills involve listening, speaking, observing, and empathising.
3	**Creativity skills** Creativity is the ability to think about a task or a problem in a new or different way or the ability to use the imagination to generate new ideas. Creativity enables you to solve complex problems or find interesting ways to approach tasks. If you are creative, you look at things from a unique perspective.
4	**Writing skills** Writing skills are specific abilities that help writers put their thoughts into words in a meaningful form and mentally interact with the message.
5	**Administration skills** Qualities that help complete tasks related to managing a team or business.
6	**Leadership skills** The strengths and abilities individuals demonstrate that help to oversee processes, guide initiatives and steer their employees toward the achievement of goals.
7	**Research skills** Able to conduct research and writing skills and provide sufficient and current information.
8	**Computer literacy** The knowledge and ability to utilise computers and related technology efficiently, with a range of skills covering levels from elementary use to computer programming and advanced problem-solving.

9	**Planning skills** The thinking skill that helps an individual develops strategies to accomplish goals.
10	**Self-development** Able to identify and apply opportunities for learning and development for self and others.
11	**Information literacy skills** Information literacy includes the ability to identify, find, evaluate, and use information effectively, from effective search strategies to evaluation techniques. It has also been referred to as digital literacy or media literacy. Regardless of the terminology, having information literacy skills are fundamentals to thrive in a digital space.
12	**Sales and marketing** Abilities to provide timely and cost-effective solutions for revenue or volume by applying business-focused strategies.
13	**Product knowledge** An understanding of a good or service might include having acquired information about its application, function, features, use and support requirements.
14	**Interview skills** Interview skills are skills or actions that allow a person to be more effective throughout the interview process for a new position. Not all interview skills are conventional; rather, many interview skills help candidates prepare for the interview and guide them as they participate in job interviews.
15	**Editorial** Editing involves carefully reviewing material before it is published and suggesting or making changes to correct or improve it. The editor must communicate clearly and tactfully with all team members and clearly mark and convey changes, suggestions, and directions.
16	**Video Editing Skills** Video editing skills enable to arrangement and alter video shots to create a cohesive structure now rather than in the distant past or future.

17	**Regulatory knowledge** An ability to understand regulations and acts related to the industry.
18	**Safety and security** The protection of workers from the dangers of industrial accidents.
19	**Animation Skills** The good experience of drawings, appreciation of aesthetics, artistic skills, colour sense, computer skills, knowledge of Computer-Aided-Design, visual imagination and creativity on one platform.
20	**Analytical Thinking** Able to simplify complex problems, process projects into component parts, explore and evaluate them systematically. Able to identify causal relationships and construct frameworks for problem-solving and/or development.

4.2.5 Emerging Skills

This section comprises emerging skills related to the Programming and Broadcasting Industry. Emerging Skills are skills that are predicted to be imperative to the industry soon based on the recent development, trend, or study. Based on FGD, the emerging skills related to IR 4.0 are listed in Table 4.4, which include Big Data, Internet of Things (IoT), Cloud Computing, Technical Skills/Broadcasting Software, Creative Story Telling etc.

Table 4.5: Emerging Skills for Programming and Broadcasting Industry

No.	Emerging Skills	Job Titles Related to IR 4.0	Reason of Required Emerging Skills
1	a) Social Media b) Online Marketing/Advertising c) Big Data d) Technical Skills/Broadcasting Software e) Cloud Computing f) Creative Story Telling g) Video Production h) Soft Skills i) Safety j) Media Laws and Regulation k) Smart Media Intelligence Research l) Digital Holography Research	Refer to Annex 5	i) Increase productivity, reduce cost, and improve efficiency ii) Minimise human error iii) Fast decision making iv) Increase process effectiveness v) Enhanced the quality of the program produced vi) To meet market demand vii) To reach more target audience

4.2.6 Related Issues in Programming and Broadcasting Industry

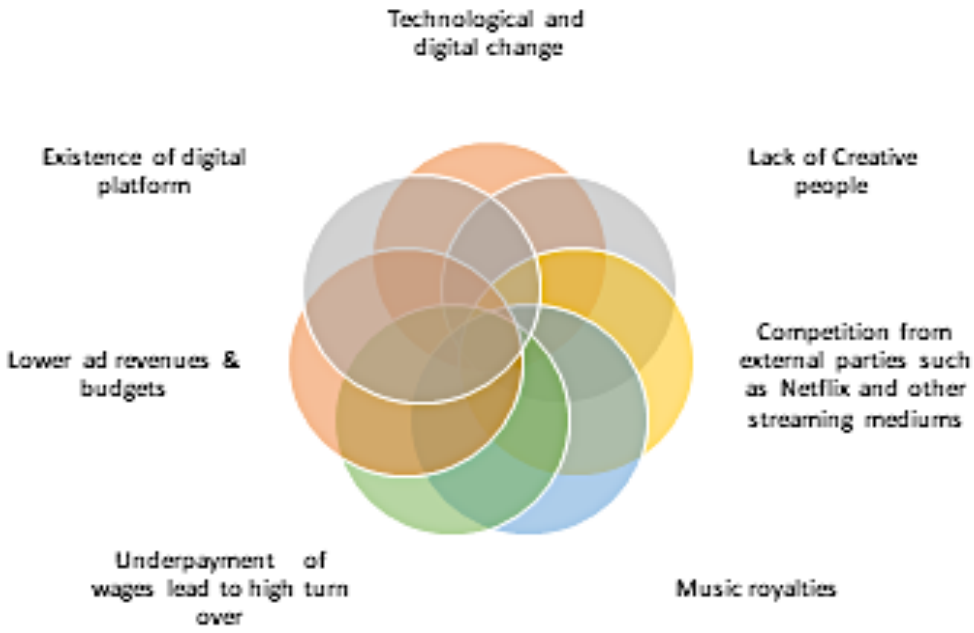
This section explores the common issues surrounding the industry. The related issues in the industry are identified in FGD and survey. Table 4.6 comprises the related issues in the industry based on FGD.

Table 4.6: Related Issues for Programming and Broadcasting Activities

No.	Key Issues	Discussion	Suggestion
1.	Technological and digital change	The main issue is changed in technology that involve high costs and in turn affect the products in terms of: (a) Slow technological innovation and adoption. (b) Lack of capital investment.	Initiatives from the government in various forms and cooperation with private sectors.
2.	Lack of Creative people	This field requires creative types of people to manage the increasingly competitive field of broadcasting.	To hire or to promote workers from the broadcasting area.
3.	Competition from external parties such as Netflix and other streaming mediums	Competition in the mode of producing content that is relevant to the audience and able to be competitive.	To upskill the current workforce with the new technological advancement and to suggest new job areas related to digital content.
4.	Music royalties	Outdated issues have yet to be resolved, thus affecting art activists.	Revision of copyright act to protect owners.
5.	Underpayment of wages lead to high turnover	Salary wages do not match with productivity and job requirements.	Profit-sharing – changing the mindset of the managerial to create harmonised salary scheme.
6.	Lower ad revenues and budgets	The Covid-19 pandemic affected the financial resources of companies and broadcasting stations. Many are laid off to save costs.	Adoption of green technologies in broadcasting activities to save costs.

7.	Existence of digital platform	Too many platforms affect the competition of broadcasting stations. Content out of control has altered the sectors involved.	To offer competitive and creative content based on current viewers' demand as unique selling points.

Figure 4.6 shows the related issues regarding Programming and Broadcasting Activities from the survey distributed. Based on the result, the most important issues regarding Programming and Broadcasting activities are the advancement of technology changes used in TV and Radio programming, the rise of digital content, the upskilling of the current workforce and underpaid staff. The result of the survey is in line with FGD, which also comprises the same related issues.



Figures 4.6: Related Issues for Programming and Broadcasting Industry

4.3 Occupational Structure (OS)

The occupational structure can be defined as job classification, whereby similar or related occupations are grouped together according to specific criteria such as skills, functions and employment based on MSIC 2008 group. Based on the discussion with the expert panels from the Radio and Broadcasting Activities, a total of 9 job areas are listed out with 58 job titles related to this industry, 47 critical job titles and 15 job titles relevant to IR 4.0. The results are listed in Table 4.7 until Table 4.9.

Table 4.7: Group 601 Occupational Structure

SECTION	(J) INFORMATION AND COMMUNICATIONS			
DIVISION	(60) PROGRAMMING AND BROADCASTING ACTIVITIES			
GROUP	(601) RADIO			
AREA	On-Air Personality / Announcer	Radio Program Production / Promo	Radio News	Social Media
LEVEL 8	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 7	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 6	Radio Program Supervisor *	Radio Producer *	Editor in chief/Executive Editor *	Social Media Executive *
LEVEL 5	Radio Program Producer	Copywriter / Voice-over) *	Broadcast Journalist *	Content Producer * **
LEVEL 4	Radio Announcer/DJ/ radio personality	Audio Editor * **	News Editor *	Talent /Visual Editor *
LEVEL 3	Document Officer * **	Announcer/Talent	Junior Broadcast journalist *	No Job Title
LEVEL 2	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 1	No Job Title	No Job Title	No Job Title	No Job Title

Note: *Critical Job Titles
**Jobs relevant to IR 4.0

Table 4.8: Group 602 Occupational Structure

SECTION	(J) INFORMATION AND COMMUNICATIONS				
DIVISION	(60) PROGRAMMING AND BROADCASTING ACTIVITIES				
GROUP	(602) TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES				
AREA	**Television Producer**	**Television Programming**	**TV News**	**Digital Content**	**Media Research**
LEVEL 8	No Job Title	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 7	Line Producer/Production Manager * **	No Job Title	Editor in Chief *	No Job Title	No Job Title
LEVEL 6	Associate Producer/Director *	Head of Program/Head of Producer *	Deputy Editor in Chief *	Digital Content Director * **	Program Researcher * **
LEVEL 5	Senior Producer/Assistant Director *	Program Producer *	Editor *	Producer/ Head of Sponsored Writer/Senior Copywriter **	Senior Research Executive *
LEVEL 4	Research/Writer/ Content Editor *	Assistant Producer/Senior Broadcast Journalist/Senior Visual Editor * **	Assistant Editor/Senior Journalist *	Social Media Analyst * **	Research Executive

LEVEL 3	Assistant Producer/Visual Editor *	Junior Broadcast Journalist/Junior Visual Editor * **	Junior Journalist *	Junior Writers/ Writer *	No Job Title
LEVEL 2	Production Artist/Designer *	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 1	No Job Title	No Job Title	No Job Title	No Job Title	No Job Title

Note: *Critical Job Titles
**Jobs relevant to IR 4.0

Table 4.9: Summary of Job Titles

No	Job Area	Level							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	On-air-personality / Announcer	NJT	NJT	1	3	1	1	NJT	NJT
2	Radio Programme Production and Promo	NJT	NJT	2	1	2	1	NJT	NJT
3	Radio News	NJT	NJT	1	1	1	2	NJT	NJT
4	Social Media	NJT	NJT	NJT	2	1	1	NJT	NJT
5	Television Producer	NJT	2	2	3	2	2	2	NJT
6	Television Programming	NJT	NJT	2	3	1	2	NJT	NJT
7	TV News	NJT	NJT	1	2	1	1	1	NJT
8	Digital Content	NJT	NJT	2	1	3	1	NJT	NJT
9	Media Research	NJT	NJT	NJT	1	1	1	NJT	NJT
Identified Job Titles (Per Level)		-	2	11	17	13	12	3	-
Total Identified Job Titles		58							
Critical Job Titles (Per Level)		-	2	8	13	9	12	3	-
Total Critical Job Titles		47							
Job Titles Relevant to Industrial Revolution (Per Level)		-	-	3	5	3	2	2	-
Total Job Titles Relevant to Industrial Revolution		15							

4.4 Occupational Competencies

This section provides the occupational responsibilities for each of the jobs titles and as purported for NOSS development. The occupational responsibilities for each job title are included but are not limited to the list. Refer to Table 4.10, Table 4.11 and Table 4.12.

DIVISION: 60 - PROGRAMMING AND BROADCASTING ACTIVITIES
GROUP: 601 - RADIO

Table 4.10: List of Responsibilities for Group 601 Based on Table 4.7

AREA	On-Air Personality / Announcer	Radio Program Production / Promo	Radio News	Social Media
LEVEL 8	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 7	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 6	**Radio Program Supervisor** 1. Oversees the day-to-day operations of a federally licensed, community-operated radio station and its various sub-units. 2. Maintains daily checklist for regular necessary tasks to be completed by Network Operations Technicians, including downloading and inputting programs into the automation system and producing on-air	**Radio Producer** 1. Work with the music, on-air personalities, sound effects, and technology to put together an entire radio show 2. Involved throughout all phases of the Radio programing and broadcasting process from development to completion of a project. 3. Maintain quality control of productions.	**Editor in Chief / Executive Editor** 1. Generating ideas for stories and features and following leads from news agencies, press releases/conferences. 2. Plan, rehearse and produce live or recorded programs 3. Involved throughout all phases of the Radio programing and broadcasting process from development to completion of a project.	**Social Media Executive** 1. Execute instructions from the manager and consultant. 2. Disseminate information to talent/graphic artists. 3. Coordinate meetings with news desk editors. 4. Edit high profile news articles/features. 5. Transmit high profile breaking news via social media channels. 6. Attend to inquiry.

	promotions for broadcast.		4. Maintain quality control of productions.	85
LEVEL 5	**Radio Program Producer** 1. Work with the music, on-air personalities, sound effects, and technology to put together an entire radio show. 2. Involved throughout all phases of the Radio programing and broadcasting process from development to completion of a project. 3. Generate and research ideas for programs, source on-air contributors, write and develop scripts, select music for the show and listen to recordings to edit them into stories or segments.	**Radio Copywriter / Voice Over** 1. Producer / read the linguistic content of adverts. 2. Worked across a range of media and formats, interpreting account briefs to compose advertorial content such as slogans, catchphrases, tweets, and scripts for radio adverts. 3. Work with the radio producer and manager to put together an entire radio show.	**Broadcast Journalist** 1. Conduct interviews and research, travel to the scenes of news events. 2. Collect and write concise reports before broadcasting a story over the airwaves. 3. Work with the radio producer and manager to put together an entire radio show.	**Content Producer** 1. Create digital content to provide information or showcase the products or services they offer. 2. Develop content that accurately reflects company ideals, and content writers often research the material they need to write and design each posting or product description. 3. Monitor, track, analyse and report on performance on social media platforms using tools such as Google Analytics and Facebook insights.

LEVEL 4	**Radio Announcer / DeeJay** 1. Read various text from a script, deliver news reports, read station identifications, and in some cases, converse with guests or other radio hosts 2. Entertain an audience during a given time slot 3. Decide about the appropriate music for the program 4. Ensure musical recordings and advertisements are played on time and also interact with listeners through social media	**Audio Editor** 1. Apply effects and music to fit the specific contexts in which they will be used. 2. Carry out sound design, implementation, post-production and audio engineering. 3. Operate and maintain the equipment that records, mixes and broadcasts various sounds and music 4. Find or design the special audio effects often heard during radio programs	**News Editor** 1. Research stories using the internet, archives, and databases. 2. Write scripts, and website or social media content 3. Write stories or editorials that offer opinions on issues. 4. Review the editorial work by Junior Broadcast Journalist	**Talent / Graphic Artists** 1. Translate a writer's, producer's visions into a coherent, marketable, entertaining, or informative programme creatively 2. Conceptualise ideas and think visually 3. Decide about the appropriate graphic style
LEVEL 3	**Document Officer** 1. Prepare and keep track of documentation needed for radio broadcasting (example, talk sets, scripts and content) to ensure actions required by documents are done 2. Carry out detailed preparations to ensure that	**Announcer / Talent** 1. Rehearse, and produce live or recorded programs 2. Work with the radio producer and manager to put together an entire radio show 3. Read various text from a script, deliver news reports, read station identifications, and in some cases, converse	**Junior Broadcast Journalist** 1. Assist senior broadcast journalists in deciding policies of the usage of news and articles. 2. Transmit breaking news. 3. Plan angles of news coverage. 4. Assist in the planning of	No Job Title

	sufficient material is captured or made available from other sources (e.g. archives, music, etc.) for editing, post-production and archival 3. Confer with clients, editors or producers to discuss changes or revisions to written material	with guests or other radio hosts	the marketing of news products.	87
LEVEL 2	No Job Title	No Job Title	No Job Title	No Job Title
LEVEL 1	No Job Title	No Job Title	No Job Title	No Job Title

DIVISION: 60 - PROGRAMMING AND BROADCASTING ACTIVITIES
GROUP: 602 - TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

Table 4.11: List of Responsibilities for Group 602 Based on Table 4.8 (1 of 2)

AREA	PRODUCER	PROGRAMMING	NEWS
LEVEL 8	No Job Title	No Job Title	No Job Title
LEVEL 7	**Line Producer/Production Manager** 1. Develop and manage financial aspects of production. 2. Discover and generate and continuously review the budget line-by-line. 3. Supervise every level of production and ensure all production will meet the budget. 4. Managing and monitoring production budget and production process. 5. Responsible for hiring and developing the team or key crew roles.	No Job Title	**Editor in Chief** 1. Developing the success of the production. 2. Evaluating content and making decisions on appropriateness for the production. 3. Acting as a representative for the production at events. 4. Managing and delegating tasks to a staff member. 5. Editing articles for accuracy, grammar, and style. 6. Developing junior writers. 7. Contributing to the recruiting and hiring process.

LEVEL 6	**Associate Producer/Director** 1. Develop program concepts and ideas with producers. 2. Conducting Project research, gathering information and knowledge from available resources. 3. Hiring, arranging, and organising crew members and supervising production personnel. 4. Managing and Coordinating set construction, supervising the lighting and sound plans. 5. Managing the budget, generating financial reports and status updates. 6. Develop stories and scripts and suggest improvements for pitching.	**Head of Program/Head of Producer** 1. Develop and organize local programs and is responsible for scripting, story development, booking of guests and overseeing field production and editing. 2. Develop program concept, layout the budget for the production and makes the major decisions. This person is the chief honcho, the team leader, the person who works with the writers, decides on the key talent, hires the Director, and guides the general direction of the production.	**Deputy Editor in Chief** 1. Assist the Editor-in-Chief on the development of the program content. 2. Prepare all contracts and assist in commissioning all articles and maintaining track of all budgets for content development. 3. Evaluate all content for all articles to ensure accuracy and recommend modifications and changes to achieve all objects and edit all articles to ensure achievement to all quality standards. 4. Maintain the quality of all content and evaluate it for punctuations and spelling. 5. Evaluate all content to maintain the accuracy of all articles and assign appropriate articles to all editors and oversee progress for the same.

LEVEL 5	**Senior Producer/Assistant Director** 1. Monitoring and tracking programs stay on schedule. 2. Coordinating and Arranging logistics, preparing call sheets, checking on the cast and crew and maintaining order on the set. 3. Responsible for the health and safety of the crew.	**Program Manager/Producer** 1. In charge of the overall direction and coordination of programming in accordance with TV Broadcasting's mission and goals. 2. Directs and coordinates the overall on-air product that includes news, etc. 3. Editorial and programming decisions, including the establishment of editorial guidelines for material that is read by volunteers and creating programs based on listener needs.	**Editor** 1. Reviewing, designing, correcting, editing, proofreading, and rewriting the content if necessary to provide high-quality content. 2. Oversee the work of all the writers involved as well as that of the freelancers, guide them, and provide them with relevant feedback on their performance. 3. Check the written content is completely original and that it is delivered in the given time without compromising on the quality standards. 4. Participate in the meetings of the editors and ensure that adequate staff members are available. 5. Maintain various reports and generate them to evaluate the performance of the writers and to get an insight on what is the progress of the publication, and create innovative methods to guide the members on how to achieve the mission set by the organization. 6. Responsible for ensuring footage is accurate and compelling. 7. Oversee the camera, lighting, design, and

			sound crew members in order to produce a polished final product. 8. Responsible for meeting multiple daily production deadlines. 9. Responsible for adding music, sound effects, audio, graphics, and special effects to video footage. 10. Brainstorm and pitch ideas for new programs and features that the station can produce.

LEVEL 4	**Research/Writer/ Content Editor** 1. Conducting thorough research on industry-related topics. 2. Generating new ideas for new content types. 3. Proofreading articles and content before publication and production. 4. Ensure all content is being produced at the right times throughout the year. 5. Ensure all content is up to date and is produced around key search terms for higher traffic, view, and visibility. 6. Highlight any inaccuracies in the information or amend spelling and grammatical errors before the content is published. 7. Develop concepts for content production or look for ways to create content that's relevant to the latest industry trends.	**Assistant Producer/Senior Broadcast Journalist/Senior Visual Editor** 1. Produce a newscast or write the stories for one. 2. Write stories and construct the newscast with all the elements that have been gathered throughout the day (packages, VOSOTs, VOs, copy stories, graphics). 3. Conduct research, investigate, and present news and current affairs content for television, radio, and the internet. 4. Present information in a balanced, accurate and interesting way through news bulletins, documentaries, and other factual programmes.	**Assistant Editor/Senior Journalist*** 1. Aid the editor and director in collecting and organising all the elements needed to edit the film. 2. Responsible for creating an uninterrupted and productive environment for the editor, making sure that all processes are as smooth as possible. 3. Responsible for providing support during the editing process, ensuring that the editor is disturbed as little as possible. 4. Collaborating with the sound team to plan sound effects and music that might be needed, the assistant editor is responsible for liaising with the editor and director to make sure that the effects used fit the tone and vision of the film. 5. Review the final assembled film or footage, looking for errors. If corrections are required, they go back into the editing software, making needed changes. 6. Responsible for all areas of Newsnight output, including editorial control of items and programme segments, producing highly crafted television pieces, scripting,

			selection and compilation of material, field production and staff supervision. 7. To originate ideas, develop running stories, come up with original treatments on all stories, think laterally and creatively, and take a journalistic interest. 8. To produce and direct programme material for Newsnight to a high standard and organise the effective coverage of home and foreign news based on editorial priorities and programme requirements. Deploy and brief Correspondents, Reporters, Stringers and Agencies. 9. Undertake pre or postproduction and studio work whilst being responsible for spending within programme budgets and understanding and implementing the aims of the Producer Guidelines.

LEVEL 3	**Assistant Producer/Visual Editor** 1. Responsible for completing and reviewing the sound, importing footage, and helping with visual effects. 2. Reviewing shooting script and raw material to create a shot decision list based on scenes' value and contribution to continuity.	**Junior Broadcast Journalist/Junior Visual Editor** 1. To bring story ideas, and will generally work with a Photographer in setting up and shooting the interviews, standups, and b-roll. 2. Write the script, and have the script approved by a manager or Producer. 3. To edit and put the story together. 4. When the package is complete, the Reporter may be asked to "front" the story via a live shot or set piece. In this case, the Reporter will take a toss from an anchor and handle the intro and outro of the story.	**Junior Journalists*** 1. Conduct research and present news items for broadcast on radio, TV and online. 2. Generating ideas for stories or taking a brief from a news editor/producer 3. Researching stories through personal contacts, the internet, and other sources 4. Choose the most appropriate angle to approach the story. 5. Booking and briefing interviewees 6. Recording interviews - in person or through telephone or studio links. 7. Finding appropriate images or sounds - either by recording fresh material or retrieving them from library stock 8. Writing introductions and scripting film material 9. Adapting material for use in other formats and programmes.

LEVEL 2	**<u>Production Artist/Designer</u>** 1. Responsible for creating and managing the visual aspects of a film, television, or theatre production. 2. Create the design style for aspects such as assets, graphics, props, lighting, and costumes. 3. Read scripts to identify what visual style is most appropriate. 4. Provide sketches to communicate their concept to the Director and Art team. 5. Produce scale drawings of sets, and draw up ideas for costumes, props, and make-up. 6. Provide ideas for special effects or graphics. 7. Conduct research and scout out filming locations. These could be studios, public or private spaces, and the Production Designer must assess them all for visual suitability and practicality.	No Job Title	No Job Title
LEVEL 1	No Job Title	No Job Title	No Job Title

Table 4.12: List of Responsibilities for Group 602 Based on Table 4.8 (2 of 2)

AREA	Digital Content	Media Research
LEVEL 8	**Digital Content Director** 1. Establish and direct the long-term strategic goals, policies, and procedures for the curation of content utilized on the web, mobile, and other platforms. 2. Develops and directs consistent methodologies to analyze content consumption data and to define content needs. 3. Manage the activities and processes of a company's digital ecosystem, including websites, social media, and program campaigns. 4. Develop and implement digital marketing strategies, analyze data traffic and user metrics, and ensure the consistency of a brand's digital tone and presence.	No Job Title
LEVEL 7	**Executive Producer** 1. Work with news, digital teams to create and manage unique, long-form content for local news OTT apps. 2. Work with news, digital teams to create and manage	No Job Title

	unique, long-form content for local news OTT apps. 3. Work with news management to coordinate the daily news operations for websites and other digital platforms. 4. Daily monitor web analytics to assess user experience, site stickiness and engagement. Address issues and evolve the site's technical execution plan to grow web page views and unique visitors. 5. Enhance the news content with outside links, maps and slideshows. 6. Work with news management to set up processes and systems for the migration of multimedia content to digital platforms, including video, audio, still photos and graphics. 7. Set news and digital staff expectations and hold teams accountable for meeting goals. 8. Plan the online coverage of major news events, breaking news and severe weather to ensure high-quality, consistent community coverage online. 9. With the editorial direction of the Director of New Media and News Director, responsible for the management of user-generated content on the sites.	

LEVEL 6	**Associate Producer** 1. Reporting to the Digital Content Director, Executive Producer and Digital Production and Associate Digital Producer will produce and publish digital media content for digital platforms along with assist in project management of active work. 2. Assist the team in special projects, which include custom creation of microsites and pages for national or affiliate needs. 3. Empower the organization to be data-driven in making content publishing choices 4. Ensure all content is optimised for online engagement, especially for key traffic sources like search, paid media, social, and email-based traffic (SEO, social share, etc.). 5. Prioritise and triage to focus on and meet organisational priorities.	**Program Researcher** 1. Responsible for the management and coordination of internal and external research and projects. 2. Provide strategic input and guidance on all research projects, directly contributing to or managing research goals, planning, design, analysis, reporting, distribution, and training. 3. Provide primary or secondary analysis of all research data, which may involve the use of quantitative and/or qualitative methods, to support thedevelopment of or contributions to key findings. 4. Manage research projects, including creating and managing plans, schedules, budgets, deliverables, and stakeholder contributions.
LEVEL 5	**Producer/ Head of Sponsored writer/Senior Copywriter** 1. Senior copywriters write original content for advertisements, social media, and a range of similar platforms. They produce and publish articles to market organizations and their products. 2. Researching relevant industry topics to identify new content.	**Senior Research Executive** 1. A production researcher performs research to collect historical, scientific, or other forms of information related to the production of a specific television or radio program or film production. 2. They must verify and properly prepare the information as well as cite the applicable references.

	3. Creating original content. 4. Producing and publishing articles that market the company and its products. 5. Editing and fact-checking content created by Junior Copywriters. 6. Using SEO practices to optimize content. 7. Collaborating with Designers to develop visuals. 8. Creating reports on content. 9. Interviewing clients and experts to generate creative ideas.	3. Participate in every level research process and review progress and deliverables. 4. To independently undertake advanced research in the relevant discipline area using, or developing, the appropriate methods and/or techniques and managing associated staff contributions to the project.
LEVEL 4	**Senior writers/social media analyst/Editor/Copywriter** 1. Media analysts follow the media coverage of a specific product or service for a company. 2. They are responsible for conducting research to produce media evaluation reports based on how often a product or service was mentioned in the media industry. 3. Media analysts can work at media analysis firms, print media, radio stations, and marketing agencies. 4. Tracking the media coverage of a product or service in print media, social media, and radio or TV advertisements. 5. Designing and using research tools such as questionnaires, focus groups, and interview schedules to collect relevant information pertaining to a media campaign. 6. Analysing press releases, as well as broadcast coverage and	**Research Executive** 1. To assist the research process by providing clear guidance on conducting research. 2. Searching, monitoring, and analysing all sources related to research goals. 3. Support the creation and production of original content that contribute to content development. 4. Plan and perform research processes, including data collection, recording, and analyzing data. 5. Interpret data analysis results and draw inferences and conclusions. 6. Present research results to the senior members in every department.

	assessing the effectiveness of the media campaign. 7. Communicating with reporters and journalists about a certain product or service and garnering positive publicity. 8. Working with clients to review their advertising efforts and point out strengths and weaknesses in their media campaigns. 9. Entering relevant marketing and media-related data into client databases. 10. Keeping up to date with advertising trends, the media industry, as well as competitors in the same field or industry. 11. Copywriters are responsible for writing compelling marketing and promotional materials for a wide variety of products and services. 12. Write copy for a variety of media, including social, print, video, and online.	

LEVEL 3	**<u>Junior Writers/Writer</u>** 1. Junior Copywriter responsibilities include conducting SEO and keyword research, updating product descriptions and writing promotional text for banners and online ads. 2. Create promotional text for online ads, banners, brochures, and social networks. 3. Conduct basic keyword research. 4. Submit well-structured drafts to senior copywriters and editors within deadlines. 5. Update existing content on web pages. 6. Implement SEO practices to increase visibility. 7. Coordinate with designers to complement text with images, graphics, and charts, as needed.	No Job Title
LEVEL 2	No Job Title	No Job Title
LEVEL 1	No Job Title	No Job Title

4.5 Mapping OS vs NOSS

This section provides a mapping of occupational structure and available NOSS. A total of 21 available NOSS are identified and mapped over with the occupational structure produced. The result of the mapping shows that are no NOSS identified are related to the OS produced based on NOSS Registry updated 24th June 2021 (Table 4.13). This is due to the remaining NOSS not relevant to the two digits MSIC 2008 Division 60: Programming and Broadcasting Activities. The results for NOSS mapping with OS are listed in Table 4.12.

Table 4.13: List of NOSS not included under Division 60 (*Source: NOSS Registry 24th June 2021*)

MSIC GROUP	CORRESPONDING NOSS/ LEVEL
J601 Radio	Not compatible/appropriate with the present JT developed in this study
J602 Television Programming and Broadcasting Activities	Not compatible/appropriate with the present JT developed in this study

4.6 Occupational Descriptions (OD)

Occupational Descriptions is a broad, general, and written statement of a specific job based on the findings of a job analysis. It generally includes duties, purpose, responsibilities, scope, and working conditions of a job along with the job's title and the name or designation of the person to whom the employee reports. There are 44 OD provided in Annex 6 are the job titles that have been identified as critical or hard-to-fill jobs as suggested by industry representatives from the focus group.

4.7 Conclusion

Based on the discussions with panel members during the development workshops and survey findings, the OS occupational responsibility for the identified job titles of the industry is produced in this chapter. The OS would provide information on the competency or job areas applicable to the industry, and the skill level of the different job titles, according to the MOSQF Level Descriptors, and the available career paths. There are nine job areas with 52 job titles, 31 critical job titles and ten job titles relevant to IR 4.0 identified from FGD.

More than that, the jobs and competencies in demand, emerging skills and related issues are other items identified in this chapter. The identified items are useful for the industrial player for proposing the next steps to cater for the demand of the industry.

CHAPTER 5

DISCUSSION, RECOMMENDATION AND CONCLUSION

5.1 Discussion

The Programming and Broadcasting Industry are considered an established segment of the services sector. For the FGD conducted, there are 12 total informants recorded. On the other side, the findings of the Occupational Analysis on the industry have identified a total of nine job areas with 52 job titles belonging to 3 digits MSIC 2008 Group 602: Television Programming and Broadcasting Activities. From these nine job areas, a total of 31 critical jobs titles and ten job titles relevant to IR 4.0 were identified from FGD.

The identified job titles require a holistic view in the development of the standard, skills training, and certification for recognition. If the competency requirements are documented in the National Occupational Skill Standards (NOSS) format, the personnel in these areas will obtain a more structured skills training. This will also enable personnel who are experienced and skilled to be certified through the Recognition of Prior Achievement (RPA). The list of NOSS which are already developed under two digits MSIC 2008 Division 60: Programming and Broadcasting Activities Table 2.8 in Chapter 2. This study provides a more comprehensive view of the industry needs in terms of skill development and thus can assist in strategising the NOSS development for other critical job areas.

5.2 Recommendation

As a recommendation from the focus group discussion, the main problem identified in this industry is the changes in technology and market demand. New critical skills have been identified to meet industrial demand and improve the quality of the content produced by radio and tv stations. Besides that, a new revision on wages also needs to be addressed since the people in this industry need to perform multi-tasks and jobs without clear definitions in the job descriptions. The participants in this study also raised changes in top management by focusing on creative talent. The aim is to avoid the non-eligible person from managing the top management and affecting the decision-making process.

Companies in the industry also need to enhance local skilled workers by providing critical skills. Several policies can be taken, such as providing incentives to companies to perform high-level skills to their employees.

It is hoped that the result of this OF can be a reference to fulfil the plans of developing skilled personnel and certifying Malaysians in this industry towards improving the quality of the local industry and thus spurring Malaysia's global competitiveness.

There are several options when addressing or mitigating workforce demand and supply. It may include establishing and maintaining partnerships with other agencies, departments, or educational institutions. The objectives are to increase external talent pools and train the existing staff to meet new skills requirements.

Based on the above comments, specific recommendations are listed below:

i) Developments in broadcasting should focus on the latest technology in the industry to ensure that the quality of the shows and content meets the needs of the audience and market.
ii) A variety of new skills requires focus in the aspects of self-development and high-level skills. The involvement of top management is an obligation to ensure that every level of skill meets highly skilled demands that satisfy

the market needs.

iii) A form of academic collaboration between universities and industry needs to be developed and updated to conform to IR 4.0. This collaboration called the Training Scheme provides the concept of 2 years in university and one year in the industry aims to equip our future talents. The implementation is conducted according to the market demand and changes in technologies.

iv) An international benchmarking exercise must be undertaken considering the success of overseas broadcasting in penetrating the international market in terms of marketing, branding, content development and recognition. It will ensure that our local contents are satisfying the international market and promoting our country.

v) Employers must invest in the employee training program to increase performance, competencies, and skills in both sectors by sending their staff to international radio and broadcasting stations like CNN, BBC, Al Jazeera etc.

Training is the main issue that affects employee performance in the broadcasting sector. If organisations invest in good employee training, it can enhance employee performance, competencies, and skills. In addition, training is a beneficial way to cope with change underpinned by technological innovation, market competition and organisational structuring. Most importantly, it plays a key in improving employee performance.

5.3 Conclusion

The conclusion is based on the specified objectives of the Occupational Framework as elaborated below:

Objective 1: To construct broadcasting industry OS based on MSIC 2008

As a result of the Occupational Framework conducted together with expert panel members from various organisations, a total of 9 job areas, 58 job titles, 47 critical job titles and 15 jobs titles relevant to IR 4.0 have been identified.

By planning and conducting the training and certification of this sector personnel in the future, it is hoped that there will be a steady flow of local skilled and certified workers.

Objective 2: To determine the competency in demand for the Programming and Broadcasting Industry

Based on the survey findings, the survey respondents and FGD highlighted the top 5 competencies in demand are as follows:

a. Creativity Skills
b. Technical skills
c. Communication skills
d. Editorial Skills
e. Video Editing Skills

The description of competencies can be referred to in Table 4.4 in Chapter 4.

Objective 3: To determine the critical job titles for the Programming and Broadcasting Industry

The Focus Group Discussion members have reviewed critical job titles listed from COL 2018/2019 and comprehensively concluded 55 critical job titles in Programming and Broadcasting activities as listed in Annex 4. There are 13 semi-skilled workers and 45 skilled workers identified from 58 critical job titles listed.

Objective 4: To identify the Programming and Broadcasting Industry relevant jobs title that is correlated with IR4.0

For identification of job titles relevant to IR 4.0, the Focus Group Discussion members have reviewed the developed OS and comprehensively concluded with five job titles relevant to IR 4.0 in the Programming and Broadcasting industry as listed in Annex 5. There are three semi-skilled workers and 12 skilled workers identified from 15 job titles relevant to IR 4.0.

Objective 5: To create Programming and Broadcasting Occupational Description (OD) for each job title based on present industry OS

The Occupational Descriptions for all the different job titles were obtained from Focus Group Discussion and related reports. These Occupational Descriptions will also serve as a reference of job scope and the required competencies for NOSS development. OD can be referred to in Annex 6.

In conclusion, government and stakeholder need to pay serious attention to industry requirement to cope with the fast development of the Radio and Broadcasting industry and to ensure the Radio and Broadcasting industry in Malaysia are in line with developed countries. The results of this study can be one of the key references to ensure the development of Programming and Broadcasting activities in Malaysia is on the right track and continuously developing to become one of the industries that enhances country development.

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ANNEX 1:

MOSQF LEVEL DESCRIPTORS

Malaysian Occupational Skills Qualification Framework (MOSQF)
Level Descriptor
(Source: Department of Skills Development)

Level	Level Description
8	Achievement at this level reflects the ability to develop original understanding and extend a sub-area of knowledge or professional practice. It reflects the ability to address problematic situations that involve many complex, interacting factors through initiating, designing, and undertaking research, development, or strategic activities. It involves the exercise of broad autonomy, judgement, and leadership in sharing responsibility for the development of a field of work or knowledge, or for creating substantial professional or organisational change. It also reflects a critical understanding of relevant theoretical and methodological perspectives and how they affect the field of knowledge or work.
7	Achievement at this level reflects the ability to reformulate and use relevant understanding, methodologies, and approaches to address problematic situations that involve many interacting factors. It includes taking responsibility for planning and developing courses of action that initiate or underpin substantial change or development, as well as exercising broad autonomy and judgment. It also reflects an understanding of theoretical and relevant methodological perspectives, and how they affect their sub-area of study or work.
6	Achievement at this level reflects the ability to refine and use relevant understanding, methods, and skills to address complex problems that have limited definition. It includes taking responsibility for planning and developing courses of action that can underpin substantial change or development, as well as exercising broad autonomy and judgment. It also reflects an understanding of different perspectives, approaches of schools of thought and the theories that underpin them.

5	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to address broadly defined, complex problems. It includes taking responsibility for planning and developing courses of action as well as exercising autonomy and judgment within broad parameters. It also reflects an understanding of different perspectives, approaches or schools of thought and the reasoning behind them.
4	Achievement at this level reflects the ability to identify and use relevant understanding, methods, and skills to address problems that are well defined but complex and non-routine. It includes taking responsibility for overall courses of action as well as exercising autonomy and judgment within broad parameters. It also reflects an understanding of different perspectives or approaches within a sub-area of study or work.
3	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to complete tasks and address problems that are well defined with a measure of complexity. It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgments within the limited parameters. It also reflects awareness of different perspectives or approaches within a sub-area of study or work.
2	Achievement at this level reflects the ability to select and use relevant knowledge, ideas, skills, and procedures to complete well-defined tasks and address straightforward problems. It includes taking responsibility for completing tasks and procedures and exercising autonomy and judgment subject to overall direction or guidance.
1	Achievement at this level reflects the ability to use relevant knowledge, skills and procedures to complete routine and predictable tasks that include responsibility for completing tasks and procedures subject to direction or guidance.

ANNEX 2:

LIST OF CONTRIBUTORS

LIST OF SECTOR PANEL MEMBERS FOR PROGRAMMING AND BROADCASTING FRAMEWORK DEVELOPMENT

NO	NAME	ORGANISATION	POSITION
1	AHMAD FEDTRI BIN YAHYA	MEDIA PRIMA	SENIOR PRODUCER
2	A. ANISSAH BINTI MD YUNOS	RADIO MELAKA	RADIO PRODUCER
3	DR. SHAZLEEN BINTI MOHAMAD	FAKULTI KOMUNIKASI DAN PENGAJIAN MEDIA, UiTM	SENIOR LECTURER
4	MOHD FALY BIN KHAMIS	MEDIA PRIMA & UiTM	SENIOR LECTURER
5	DR. HAIDA BINTI BABA ZAIN	JABATAN PENYIARAN MALAYSIA	SENIOR PRODUCER
6	KU MOHAMAD ARAFAT BIN KU MUSTAFA	RTM & SKMM	SENIOR PRODUCER
7	MOHD AZRAI FAHMI BIN MOHD ZAIN	GAMBO.TV	DIRECTOR
8	MOHD SHAWALLUDIN FITRI BIN MOHD TAHA	BAPAKKU.FM	ON-AIR-PERSONALITY
9	NURUL AISHAH BINT AB RAMAN	UiTM	SENIOR LECTURER / REPORTER
10	ROSLI BIN NORDIN	TRAXX FM, RTM	RADIO SENIOR PRODUCER
11	SALINAH BINTI MOHD YUSOF	BALAI BERITA, RTM	SENIOR NEWS PRODUCER

12	SUHANA SURATMAN	RTM	SENIOR PRODUCER
13	WAN MUZAMIL BIN WAN IBRAHIM	FINAS	MANAGER

LIST OF OCCUPATIONAL FRAMEWORK TECHNICAL EVALUATION COMMITTEE FOR PROGRAMMING AND BROADCASTING INDUSTRY

NO.	NAME	ORGANISATION
1	AZLINA BINTI MOHD YUSOF	MALAYSIA COMMUNICATION AND MULTIMEDIA COMMISSION (MCMC)
2	NIZAL BIN MOHAMAD	NIZAL & CO. SDN BHD
3	KHADIJAH BINTI ISAAK	DEPARTMENT OF SKILLS DEVELOPMENT
4	NOOR AZURA BINTI ADNAN	DEPARTMENT OF SKILLS DEVELOPMENT
5	AHMAD AZRAN BIN RANAAI	DEPARTMENT OF SKILLS DEVELOPMENT
6	NAZRUL HILMI BIN MOHAMMAD	DEPARTMENT OF SKILLS DEVELOPMENT
7	NORHADAWATI BINTI DAUD	DEPARTMENT OF SKILLS DEVELOPMENT

8	NOR AZZURA AZIZUL AZMAN	AZZURA NETWORK
9	DATIN MONA BINTI JASMAN	INSTITUT KEFAHAMAN ISLAM MALAYSIA (IKIM)

LIST OF DEPARTMENTS OF SKILLS DEVELOPMENT (DSD) OFFICERS INVOLVED IN OCCUPATIONAL FRAMEWORK DEVELOPMENT FOR PROGRAMMING AND BROADCASTING INDUSTRY

NO.	NAME	ORGANISATION	RESPONSIBLE
1	KHADIJAH BINTI ISAAK (HEAD OF ASSISTANT DIRECTOR)	DEPARTMENT OF SKILLS DEVELOPMENT	EVALUATING AND MONITORING THE PROCESS OF DEVELOPMENT.
2	NOOR AZURA BINTI ADNAN (SENIOR ASSISTANT DIRECTOR)	DEPARTMENT OF SKILLS DEVELOPMENT	EVALUATING AND MONITORING THE PROCESS OF DEVELOPMENT.
3	AHMAD AZRAN BIN RANAAI (SENIOR ASSISTANT DIRECTOR)	DEPARTMENT OF SKILLS DEVELOPMENT	EVALUATING AND MONITORING THE PROCESS OF DEVELOPMENT.
4	NAZRUL HILMI BIN MOHAMMAD (SENIOR ASSISTANT DIRECTOR)	DEPARTMENT OF SKILLS DEVELOPMENT	EVALUATING AND MONITORING THE PROCESS OF DEVELOPMENT.

5	NORHADAWATI BINTI DAUD (SKILL DEVELOPMENT OFFICER)	DEPARTMENT OF SKILLS DEVELOPMENT	EVALUATING AND MONITORING THE PROCESS OF DEVELOPMENT.

LIST OF WORKFORCE TEAM IN OCCUPATIONAL FRAMEWORK DEVELOPMENT FOR PROGRAMMING AND BROADCASTING INDUSTRY

NO.	NAME	ORGANISATION	RESPONSIBLE
1	DR. SUHAIMEE BIN SAAHAR	UiTM SHAH ALAM	HEAD OF RESEARCH
2	PROF. MADYA DR. MOHD HAFIZ BIN ZAKARIA	UNIVERSITI TEKNIKAL MALAYSIA MELAKA	RESEARCH ASSISTANT
3	DR. NORANIZA BINTI MD JANI	MSGA SDN. BHD.	WRITER / PROOFREADER

ANNEX 3:

QUESTIONNAIRE

J60 PROGRAMMING AND BROADCASTING ACTIVITY OCCUPATIONAL FRAMEWORK SURVEY

Department of Skills Development (DSD), Ministry of Human Resources is currently conducting an analysis on the Occupational Framework of the Programming and Broadcasting Activity. The outcome of this survey will be summarised for the use of the Government, private sector, investors, employers, employees, educators or any personnel involved either directly or indirectly with this industry.

This survey will be used as field data in order to conduct a comprehensive analysis of the Occupational Framework in the industry.

There will be 3 sections in this survey and the estimated time needed to complete this survey is around 20 minutes. There will be further communication with survey respondents in order to verify our findings. Your answers will be treated with the highest confidentiality. If you wish to remain anonymous in your responses or have any enquiries regarding this survey, please contact suhaimee@uitm.edu.my or hafiz@utem.edu.my.

Respondent Details

Name : _____

Position : _____

Organisation : _____

Date : _____

Sector : o Radio o Television

SECTION 1: INDUSTRY WORKFORCE CRITICAL SKILLS

Please indicate by ticking (/) the importance of the following skills based on your experience in the organisation. “No answer” is considered neutral.

Critical Skills in J60	Very Critical	Critical	Moderately Critical	Less Critical	No answer
Technical skills related to broadcasting and radio					
Practical skills and expertise					
Marketing and commercial skills					
ICT – information and communication technology					
Managerial and business skills, project planning and management					
Communication skills (language, cultural issues, etc)					
Media and communication legal and ethics					
Writing and editing skills					

Please state other skills that are in shortage:

_____

_____

SECTION 2: INDUSTRY WORKFORCE JOB AREA, JOB TITLE AND COMPETENCY LEVEL

Based on the experience of your organizations, please indicate the relevance of the following Job Area and Job Titles within a typical broadcast media company.

Please indicate if the job title is still in demand or no longer in demand by ticking (/) in one of the boxes given. Then, please rate Competency Level from 5 (Advanced) to 1 (Elementary) which you think will be suitable for the job.

Refer Competency Level below:

Tahap / *Level*	**Definisi / *Definition***
Tahap 5 **(*Level 5*)**	Terampil menggunakan pelbagai prinsip asas dan teknik yang kompleks di dalam skop yang luas serta selalu tidak dijangka. Mempunyai tanggungjawab dan autonomi diri yang sangat tinggi, serta bertanggungjawab terhadap kerja orang lain dan agihan sumber-sumber. Bertanggungjawab juga terhadap analisis, diagnosis, rekabentuk, perancangan, pengendalian dan penilaian.
Tahap 4 **(*Level 4*)**	Terampil melakukan pelbagai aktiviti kerja teknikal dan profesional yang luas skop dan konteksnya. Mempunyai tanggungjawab dan autonomi diri yang tinggi, di samping lazim bertanggungjawab terhadap kerja orang lain dan agihan sumber-sumber.
Tahap 3 **(*Level 3*)**	Terampil melakukan pelbagai aktiviti kerja di dalam pelbagai konteks, kebanyakannya adalah kompleks dan tidak lazim dilakukan. Mempunyai tanggungjawab dan autonomi diri yang tinggi, disamping mengawal dan memberi panduan kepada yang lain.
Tahap 2 **(*Level 2*)**	Terampil melakukan pelbagai aktiviti kerja di dalam pelbagai konteks, sebahagiannya adalah tidak lazim dilakukan serta memerlukan tanggungjawab dan autonomi diri.
Tahap 1 **(*Level 1*)**	Terampil melakukan pelbagai aktiviti kerja, sebahagian besarnya adalah lazim dilakukan dan boleh dijangka.

(Example is provided in the first row.)

Job Area	**Job titles**	**Is Job still in demand?**	**Is Job no longer in demand?**	**Competency Level (5 to 1)**
Editorial	*(Example) News Director*	*/*		*5*
	News Director			
	Executive Producer			
	Copy Editor (News)			
	Head Writer			
	Producer (News/Entertainment)			
	Writer			
	Anchor/Presenter			
	Assistant Producer			
	Researcher/Writer			
	Editor in Chief			
	Assistant Editor			
Programming	Head of Programming / Channel			
	Head of Acquisition			
	Programming/Channel Manager			
	Acquisition Manager			
	Programming Executive			
	Content Acquisition Executive			
	Subtitler/Translator			
	Librarian			

	Visual Editor			
	Broadcast Journalist			
	Script Writer			
	Editor in Chief			
Radio	Station Manager			
	Radio Producer / Presenter			
	Music Director			
	Audio Engineer (Radio)			
	Commercials Producer			
	Program Director			
	Radio Director			
	Producer			
	Announcer			
	Creative Writer & Copywriter			
	Traffic Manager			
	Broadcast Engineers			
	Reporter			
Other	Digital Content Producer			
	Digital Imaging Technician			
	Live Streaming Content Producer			
	Market Analyst			
	Multi-Platform Content Editor			
	Big Data Analyst			
	Event and Programming			

	Safety Officer			
	Social Media Consultant			
	Social Media Manager			
	Broadcast Journalist			
	Research and Development Officer			
	Social Media Analyst			
	Line Producer			
	Copywriter			

SECTION 3: WAY FORWARD

Please give your expert opinion on the future scenario in this sector.

What are the challenges or difficulties faced by the broadcasting industry currently?
Apakah cabaran atau kesulitan yang dihadapi oleh industry penyiaran sekarang?

What sort of training/courses are critically needed in this sector to remain competitive in the try?

Apakah bentuk latihan / kursus yang sangat diperlukan dalam sector ini untuk kekal kompetetif dalam industry?

What sort of technological changes is going to pose threats to the industry in the next 5-10 years?
Apakah jenis perubahan teknologi yang bakal memberi ancaman kepada industri ini dalam tempoh 5-10 tahun akan datang?

End of Survey. Thank you.

ANNEX 4:

LIST OF CRITICAL JOB TITLES

(602) TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

JOB AREA	CRITICAL JOB TITLES
TELEVISION PROGRAMMING	Line Producer/Production Manager
	Associate Producer/Director
	Senior Producer/Assistant Director
	Assistant Producer/Visual Editor
	Research/Writer/ Content Editor
	Production Artist/Designer
DIGITAL CONTENT	Digital Content Director
	Deputy Content Director
	Digital Associate Producer
	Producer/ Head of Sponsored Writer/Senior Copywriter
	Social Media Analyst
TELEVISION PROGRAMMING	Head of Program/Head of Producer
	Program Producer
	Assistant Producer/Senior Broadcast Journalist/Senior Visual Editor
	Junior Broadcast Journalist/Junior Visual Editor
RESEARCH AND DEVELOPMENT	Head of Research and Development
	Deputy Head of RND
	RND Manager
DIGITAL CONTENT	Digital Content Director
	Deputy Content Director
	Social Media Analyst

(601) RADIO

JOB AREA	CRITICAL JOB TITLES
On-Air Personality / Announcer	Radio Program Supervisor
	Document Officer
Radio Program Production / Promo	Radio Producer
	Copywriter / Voice-over)
	Audio Editor
Radio News	Editor in chief/Executive Editor
	Broadcast Journalist
	News Editor
Social Media	Social Media Executive
	Content Producer
	Talent /Visual Editor

ANNEX 5:

JOB TITLES RELEVANT TO INDUSTRIAL EVOLUTION 4.0

(602) TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

JOB AREA	JOB TITLES RELATED TO IR4.0
TELEVISION PROGRAMMING	Assistant Producer / Senior Broadcast Journalist / Senior Visual Editor
	Junior Broadcast Journalist / Junior Visual Editor
DIGITAL CONTENT	Digital Content Director
	Deputy Content Director
	Digital Associate Producer
	Producer / Head of Sponsored Writer / Senior Copywriter
	Social Media Analyst
RESEARCH AND DEVELOPMENT	Head of Research and Development
	Deputy Head of RND
	RND Manager

(601) RADIO

JOB AREA	CRITICAL JOB TITLES
On-Air Personality / Announcer	Document Officer
Radio Program Production / Promo	Audio Editor
Social Media	Content Producer

ANNEX 6:

OCCUPATIONAL DESCRIPTION (OD)

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : LINE PRODUCER/PRODUCTION MANAGER

LEVEL : 8

RESPONSIBILITIES

The line producer oversees all operations and logistics for a film, from the pre-production phase through the delivery of the completed work. A line producer's role is often coupled with the title production manager or production supervisor, depending on the project.

KNOWLEDGE

Line Producers must have a thorough understanding of scheduling and budgeting, as well as all the physical and technical processes involved in filming. Outstanding communication skills are essential, as well as the diplomacy to balance the director's, artists', and creative personnel's creative demands with the financial resources available. need to prepare for the worst while also inspiring people to achieve greatness in their careers.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

A line producer is a highly organised person. They're in charge of a whole show, keeping every ball in the air, every dish spinning, and every duck in its place. Individuals who thrive in high-stress, fast-paced circumstances are known as line producers. People who are people-oriented and well-organized are best suited for this position. Other abilities include Project Management, Multi-Tasking, Communication, Team Leadership, Team Player, Diplomacy, Negotiation, Calm Under Pressure, Networking, In-Depth Film Production Knowledge, Health & Safety, First Aid, Scheduling, Accounting, and Budgeting are just a few of the skills required in the film industry.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : ASSOCIATE PRODUCER/DIRECTOR

LEVEL : 7

RESPONSIBILITIES

Assist the producer in putting the TV program or film together. Duties may include writing, editing, organizing scripts, running the teleprompter in news casts, or helping the editor by making beat calls. An Associate Producer is responsible for ensuring the production of a video project runs smoothly. Supervise lighting and sound plans, operate the teleprompter, coordinate the set constructions, or edit scripts. Their responsibilities often vary based on the size of their crew and set.

KNOWLEDGE

Analytical Thinking - The ability to recognise problems, gather pertinent facts, relate and compare data from many sources, and come up with alternative solutions. (Middle-level talents are necessary.) Critical Thinking - Interprets and seeks information, utilises independent thinking to diagnose the root cause of situations or issues, finds and tests solutions, and thinks beyond the box. Makes decisions and/or recommendations based on facts to determine advantages and impact. (Middle-level talents are necessary.)

Ability to coordinate and administer program/project activities and processes (project/program/service management). Ability to manage resources, keep track of operations, and make decisions.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Ability to multitask and work under pressure: Because production projects have deadlines, an Associate Producer must be able to meet those deadlines even when they are tight. Making decisions: An Associate Producer will be responsible for hiring and other crucial decisions. Crisis management: During the production process, the conflict will inevitably develop; the Associate Producer must be able to manage the situation and find appropriate solutions.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : SENIOR PRODUCER

LEVEL : 6

RESPONSIBILITIES

Take charge of the management of creative digital projects, as well as delegating tasks and reporting on the progress of the team. Overseeing complex and high-end campaigns, requiring skill and effort, whilst monitoring and working with a sharp eye for detail, colleagues will rely on the senior producer project manager to plan and execute clear strategies and timelines. Driving processes end-to-end, this role involves encouraging the team to simplify processes in order and be more productive.

KNOWLEDGE

Extensive knowledge in media production, messaging, communication, and dissemination techniques and methods.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Interpersonal, written, and vocal communication skills are exceptional. Excellent organisational abilities and strong attention to detail. Diplomatic abilities are second to none. Ability to manage numerous projects at once and operate under pressure in a fast-paced atmosphere to fulfil deadlines.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : RESEARCH/WRITER/ CONTENT EDITOR

LEVEL : 5

RESPONSIBILITIES

Content Editor is overseeing all the business's content production initiatives inclusive of books, videos, blogs, emails, infographics, and web pages. At this editorial capacity, the Content Editor ensures the attractiveness of typography by checking margins, word spacing, repetitive word breaks, and so forth. The Content Editor is tasked with ensuring that all the content maintains a high standard in quality, which will be identified with the business's brand. In the performance of this function, the Content Editor proofreads and edits material through their various stages all the way from conceptualization to their publication.

KNOWLEDGE

Able to change their manner and tone depending on the task at hand. Writers/Content Editors may need to style their work to focus on getting specific information to the audience or giving a call-to-action, depending on the goal of the content. Calendars and content schedules are managed by content editors to ensure that a consistent volume of content is produced at the appropriate periods throughout the year.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Strong interpersonal skills are necessary to gain the correct information and work well with other colleagues. Attention to detail – as a content editor, spotting inaccuracies and making amendments is a key part of the job, so applicants for this position need to be detail-oriented and be able to identify changes that are required. Creativity work with other team members to identify a way around the problem.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : ASSISTANT PRODUCER/VISUAL EDITOR

LEVEL : 4

RESPONSIBILITIES

A Video Editor is tasked with taking the raw footage shot by a film crew and director and turning it into the final product. This means following an outline, script or shot list and assembling the footage into one cohesive video or film. Often in video and film work, there are many camera angles and takes recorded. It is the responsibility of the Video Editor to review all the footage and create the best output by cutting and connecting various footage, adding sound effects and graphics and fine-tuning the completed video or film.

KNOWLEDGE

Knowledge of media production, communication and dissemination techniques and methods are required to produce and design quality content and visuals. An assistant producer/visual editor must have knowledge of raw materials, production process, quality control, costs, and other techniques for maximizing the effective content and program that will assist the unit or department.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Required good editing skills, video production skills and ability to collaborate with teams to plan and develop content. Possess a high-stress tolerance where can accept criticism and deal calmly and effectively with high-stress situations. Need to put attention to detail so the job will carefully be executed. Need to be reliable, responsible, and dependable and fulfilling obligations.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : PRODUCER

JOB TITLE : PRODUCTION ARTIST/DESIGNER

LEVEL : 3

RESPONSIBILITIES

Production Designers are responsible for creating and managing the visual aspects of a film, television, or theatre production. They work closely with the Director and Producer to create the design style for aspects such as assets, graphics, props, lighting, and costumes. They then direct and manage the team responsible for producing these visual elements, such as Set and Costume Designers.

KNOWLEDGE

Have a good knowledge of the visual concept of a film, television or theatre production. Know how to identify a design style for sets, locations, graphics, props, lighting, camera angles and costumes, while working closely with the director and producer.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Required good editing skills, video production skills and ability to collaborate with teams to plan and develop content. Possess a high-stress tolerance where can accept criticism and deal calmly and effectively with high-stress situations. Need to put attention to detail so the job will carefully be executed. Need to be reliable, responsible, and dependable and fulfilling obligations.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : TELEVISION PROGRAMMING

JOB TITLE : HEAD OF PROGRAM/HEAD OF PRODUCER

LEVEL : 6

RESPONSIBILITIES

Tracking daily progress against the filming production schedule, arranging logistics, preparing daily call sheets, checking cast and crew, and maintaining order on the set. They also must take care of the health and safety of the crew.

KNOWLEDGE

The Head of Producer must have knowledge in media management and production. Able to manage schedules and plans carefully and precisely. There needs to be knowledgeable about all staff and production.

SKILLS

Required skills in computer, editing skills, production management and creativity and need to possess specific attributes and attitudes that can bring the team to work together and make sure all production processes will be executed.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : TELEVISION PROGRAMMING

JOB TITLE : PROGRAM PRODUCER

LEVEL : 5

RESPONSIBILITIES

Oversee the business and financial matters of a movie, music album, stage production or television show. Their main duties include hiring production staff, like Directors, Crew Members and Cast Members, building the budget for the production and gaining intellectual property rights.

KNOWLEDGE

Possess knowledge in managing and scheduling tv programs and crews by providing creative ideas and solutions that can enhance the performance and the quality of the broadcast content. Have a good knowledge of current issues and the ability to manage the financial procedures and audiovisual equipment and production.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Hold strong communication and interpersonal skills that will be able to provide strategic and communication decisions within the time given. Strong personality and attitude with a high level of commitment and strong team player that can drive the team to perform excellently in their routine works.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : TELEVISION PROGRAMMING

JOB TITLE : ASSISTANT PRODUCER/SENIOR BROADCAST JOURNALIST/SENIOR VISUAL EDITOR

LEVEL : 4

RESPONSIBILITIES

Responsible for all news including editorial control of items and programme segments, producing highly crafted television pieces, scripting, selection and compilation of material, field production and staff supervision. To ensure all elements of the production are aligned with the station vision and mission.

KNOWLEDGE

Deep knowledge in IT and software related to current jobs and duties will enable me to perform the specific task given and be able to produce quality and creative content that meet the audience's expectations.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Hold strong communication and interpersonal skills, editing and visualizing that will be able to provide strategic and communication decisions within the time given. Strong personality and attitude with a high level of commitment and strong team player that can drive the team to perform excellently in their routine works.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : TELEVISION PROGRAMMING

JOB TITLE : JUNIOR BROADCAST JOURNALIST/JUNIOR VISUAL EDITOR

LEVEL : 3

RESPONSIBILITIES

Research, investigate and present news and current affairs content for television, radio and the internet. Their aim is to present information in a balanced, accurate and interesting way through news bulletins, documentaries, and other factual programmes. Junior video editors turn audio samples, recorded video footage and computer graphics into a finished product for a television studio, cable news network or movie studio. They usually hold bachelor's degrees in such fields as broadcasting and film.

KNOWLEDGE

Possess a good knowledge of current affairs issues with an in-depth understanding to find relevant stories and issues that can contribute to the content and news developments. Knowledge in critical writing and editing skills is important to ensure good quality news and content provided.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Required interest in people, news, current affairs and good general knowledge, excellent written and oral communication skills, confidence in front of a camera and an 'on air' presence, an understanding of relevant technical equipment and editing software. The ability to work under pressure, both within teams and individually with outstanding analytical skills and the ability to absorb, extract and present information in a clear and understandable way.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : NEWS

JOB TITLE : EDITOR IN CHIEF

LEVEL : 7

RESPONSIBILITIES

Accountable for delegating tasks to staff members and managing them. The term is often used in newspapers, magazines, yearbooks, and television news programs. The editor-in-chief is commonly the link between the publisher or proprietor and the editorial staff.

KNOWLEDGE

Editor in chief must master all knowledge in news-editorial. They must have a strong knowledge of the structure and content of the language including the meaning and spelling of words, rules of composition and grammar. Additionally, they also must have knowledge of media production, communication and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

The important skill requires as editor in chief is reading comprehension where a skill to understand written sentences and paragraphs in work-related documents. Need to communicate effectively in writing as appropriate for the needs of the audience and need to give full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate and not interrupting at inappropriate times.

MSIC GROUP : PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : NEWS

JOB TITLE : DEPUTY EDITOR IN CHIEF

LEVEL : 6

RESPONSIBILITIES

Assist the editor in chief in preparing films, magazines, books, newspapers or websites for program and publication.

KNOWLEDGE

The Deputy editor in chief must have the ability and knowledge that can assist the editor in chief in the editorial and writing process. Able to assist and participate in programming and editorial committees and take charge of the project mode management in relation with various members of the project team.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

They must know how to write while adapting to the editorial context and the medium. Will be able to assess the information needed by the team. They must be proactive and make informed choices and know to plan and meet deadlines. They also must have a sense of organization, be rigorous, reliable, autonomous, and self-confident. Show intellectual curiosity, a sense of innovation and creativity.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : NEWS

JOB TITLE : EDITOR

LEVEL : 5

RESPONSIBILITIES

Transform raw footage filmed on the set of a television show into a polished final product for broadcast. Using computer technology, TV editors mix video footage with music, sound effects, and audio and special effects. They are responsible for most of the post-production process, and their editorial decisions determine how the story is told, ultimately moulding the audience's experience. TV editors may work with footage for scripted TV shows, television documentaries, news programs, music videos, professional training videos, or advertisements.

KNOWLEDGE

The editor must have the ability and knowledge that can assist the editor in chief in the editorial and writing process. Able to assist and participate in programming and editorial committees and take charge of the project mode management in relation with various members of the project team.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

They must know how to write while adapting to the editorial context and the medium. Will be able to assess the information needed by the team. They must be proactive and make informed choices and know to plan and meet deadlines. They also must have a sense of organization, be rigorous, reliable, autonomous, and self-confident. Show intellectual curiosity, a sense of innovation and creativity.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : NEWS

JOB TITLE : ASSISTANT EDITOR/SENIOR JOURNALIST

LEVEL : 4

RESPONSIBILITIES

An assistant editor is a professional responsible for assisting an editor-in-chief or editor-at-large of a newspaper, magazine, radio program, or website. Assistant editors hold meetings with staff and freelance writers to discuss new, fresh, and original content for projects on a daily, weekly, or monthly basis. They review assignments handed in by writers or reporters for sense, accuracy, readability, and content. Assistant editors must also utilize new media applications such as Twitter and Facebook to draw attention to an article or cause.

KNOWLEDGE

Assistant editor/ senior journalist must have knowledge on getting information by observing, receiving, and otherwise obtaining information from all sources. Computer knowledge is a must where all the knowledge needed will establish and maintain the interpersonal relationships between team members and manage to identify information by categorising, estimating and making informed decisions based on changing circumstances.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

They must know how to write while adapting to the editorial context and the medium. Will be able to assess the information needed by the team. They must be proactive and make informed choices and know to plan and meet deadlines. They also must have a sense of organization, be rigorous, reliable, autonomous, and self-confident. Show intellectual curiosity, a sense of innovation and creativity.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : NEWS

JOB TITLE : JUNIOR JOURNALIST

LEVEL : 3

RESPONSIBILITIES

Responsible for interviewing and gathering information, writing new pieces, and presenting the news in an honest and balanced manner. Ensure all deadlines are met and adhere to the ethical code of the profession. Keep all records of all notes, interviews, and audio files.

KNOWLEDGE

As junior journalists, they must have knowledge in journalism, editing and writing and be able to understand current affairs and issues that will be translated into the news. They must know what a story is and how to carry out the necessary research and interviews while building and maintaining a range of reliable contacts. They also must know how to create quality stories that are accurate, clear, vigour, fair and balanced in a form that will engage an audience.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Writing, editing, and visualising skills are needed to perform as a good junior journalist. Able to work independently with less supervision and need to establish a good relationship with all team members. Need to protect ethics and moral conduct as part of my responsibility as a journalist.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : DIGITAL CONTENT

JOB TITLE : DIGITAL CONTENT DIRECTOR

LEVEL : 6

RESPONSIBILITIES

Establishes and directs the strategic long-term goals, policies, and procedures for the curation of content utilized on the web, mobile, and other platforms. Develops and directs consistent methodologies to analyse content consumption data and to define content needs.

KNOWLEDGE

As digital content directors, they must have vast knowledge in social media and know-how to benefit from this digital world. Able to leverage social media networking to strategize and develop content that can increase the traffic and engagement among the audience. Able to manage all activities and processes of a digital ecosystem and develop media strategies.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Creative vision, collaboration skills and the ability to understand and work with stakeholders and the ability to see the big picture for this role is a must. Digital skills are the main requirement for this post to ensure all directions and strategies will lead to the benefit of organisations.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : DIGITAL CONTENT

JOB TITLE : SOCIAL MEDIA ANALYST

LEVEL : 4

RESPONSIBILITIES

Social Media analysts follow the media coverage of a specific product or service for a company. They are responsible for conducting research to produce media evaluation reports based on how often a product or service was mentioned in the media industry. Media analysts can work at media analysis firms, print media, radio stations, and marketing agencies.

KNOWLEDGE

As a social media analyst, in-depth understanding, and knowledge of SEO etc. are needed to perform this task. Experience in managing social media through several tools are required. Need to be familiar with online content and management system such as WordPress.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Skills needed for this post comprises a good computer and digital skills, creativity, resourcefulness, and good communication skills, Excellent financial and analytic abilities, Research skills and Animation skills. Ability to identify trends and preferences among the target audience and excellent in communication, time management and multitasking skills.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : DIGITAL CONTENT

JOB TITLE : JUNIOR WRITERS

LEVEL : 3

RESPONSIBILITIES

Junior writers are responsible for generating stand-alone copy, or text to complement visual concepts created by an art director, across many platforms.

KNOWLEDGE

An in-depth understanding and knowledge of SEO etc. are needed to perform this task. Experience in managing social media through several tools are required. Need to be familiar with online content and management system such as WordPress.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL)

Skills needed for this post comprises a good computer and digital skills, creativity, resourceresourcefulnessd good communication skills, Excellent financial and analytic abilities, Research skills and Animation skills. Ability to identify trends and preferences among the target audience and excellent in communication, time management and multitasking skills.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : TELEVISION PROGRAMMING AND BROADCASTING ACTIVITIES

AREA : RESEARCH

JOB TITLE : PROGRAM RESEARCHER

LEVEL : 6

RESPONSIBILITIES

Provide direction, resources, and oversight to help ensure research is conducted in accordance with organisational goals and objectives. Responsible for providing strategic direction for the department and unit to develop relevant input and content. they are also responsible for ensuring the element of security and safety of the data gathered. Responsible for research ethics and moral conduct in conducting research.

KNOWLEDGE

Head of Research and Development must have a strong and knowledge in research and development also have gone through many research that enables them to determine and decide the direction of research that can benefit the organisation. Strong knowledge of research, ethics, and data will guide the research process.

SKILLS AND ATTRIBUTES (ATTITUDE / SAFETY / ENVIRONMENTAL

Must be critical in managing and interpreting the data and information that they collect and receive. Obtaining good data is a must requirement that later can be translated to all teams or members of the department or unit. Able to communicate the data and information with good understanding and will be able to be grasped by all members.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : O-A-P / ANNOUNCER

JOB TITLE : RADIO PROGRAM SUPERVISOR

LEVEL : 6

RESPONSIBILITIES

The radio program supervisor oversees the day-to-day operations of a federally licensed, community-operated radio station and its various sub-units. The radio program supervisor also writes edits, voicing and production of audio content for on-air fundraising, underwriting announcements and promotional campaigns. The radio program supervisor also maintains a daily checklist for regular necessary tasks to be completed by Network Operations Technicians including downloading and inputting programs into the automation system and producing on-air promotions for broadcast.

KNOWLEDGE

Radio program supervisors must have good diplomacy and good communication skills with other members of the programming team. They must have an excellent understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They should have good knowledge of principles and practices of radio broadcasting including programming, budgeting, news, music, and sports; knowledge of principles and practices of FM broadcast transmission; ability to plan and supervise the work of others; ability to meet and deal with daily operational problems; dependability; resourcefulness.

SKILLS AND ATTRIBUTES

The radio program supervisors should be able to develop and maintain effective working relationships with clients, colleagues, and suppliers. They must be professional, strong team players, possess creativity skills, demonstrate leadership; professional attitude; good judgment; physical conditions commensurate with the demands of the position.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : O-A-P / ANNOUNCER

JOB TITLE : RADIO PROGRAM PRODUCER

LEVEL : 5

RESPONSIBILITIES

Radio program producers plan, rehearse and produce live or recorded programs They work with the music, on-air personalities, sound effects, and technology to put together an entire radio show. They are involved throughout all phases of the Radio programing and broadcasting process from development to completion of a project. They also generate and research ideas for programs, source on-air contributors, write and develop scripts, select music for the show and listen to recordings to edit them into stories or segments.

KNOWLEDGE

Radio program producers must have a good understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They should have good knowledge of principles and practices of radio broadcasting including programming, knowledge of principles and practices of FM broadcast transmission; ability to plan and supervise the work of others; ability to meet and deal with daily operational problems; dependability; resourcefulness.

SKILLS AND ATTRIBUTES

Radio program producers must be creative, and able to collect and interpret data. They should be able to develop and maintain effective working relationships with clients, colleagues, and suppliers. They must be a professional, strong team player, possess creativity skills, and demonstrate leadership.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : O-A-P / ANNOUNCER

JOB TITLE : RADIO ANNOUNCER / DEEJAY / RADIO PERSONALITY

LEVEL : 4

RESPONSIBILITIES

Radio announcers or Disc jockeys play musical recordings on radio shows. They ensure musical recordings and advertisements are played on time and interact with listeners through social media. DJs mostly work for radio stations presenting programs, talks shows, and chart shows. They also decide about the appropriate music for the program on top of pre-recording any necessary intros and outros that may be needed as filler and updating those recordings as necessary.

KNOWLEDGE

Radio announcers or Disc jockeys should know the operation of all equipment at the station, as well as instruments used for remote recordings and broadcasts. They should also be able to help deliver programming that listeners are excited to tune into.

SKILLS AND ATTRIBUTES

Radio announcers should have a good understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They must have the unique ability to convey information in a relatable, informative way. They need to have pleasant personalities and strong interpersonal skills. They should also have an impeccable command of the Malay and English language and a good understanding of the equipment used in broadcasting.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : O-A-P / ANNOUNCER

JOB TITLE : DOCUMENT OFFICER

LEVEL : 3

RESPONSIBILITIES

Document Officer is responsible to prepare and keep track of documentation needed for radio broadcasting (for example talk sets, scripts, and content) to ensure actions required by documents are done. For instance, if they're in charge of programmes, they'll make sure everything is checked. They also carry out detailed preparations to ensure that sufficient material is captured or made available from other sources (e.g., archives, music, etc.) for editing, postproduction, and archival purposes.

KNOWLEDGE

Document officers must have meticulous research and planning skills. They should also have knowledge of the radio programming process, on top of systematic documentation and archival process. They have to ensure that all data is accurate and that documents are stored and backed up and any retention policies are followed.

SKILLS AND ATTRIBUTES

Document officers must have fluent Information Literacy skills and a strong ability to collect and interpret data effectively. They must be able to conduct research and have good copywriting and writing skills. They should also be able to work independently and under pressure, strong attention to detail and the ability to adapt well to the workplace environment.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO PROGRAM PRODUCTION / PROMO

JOB TITLE : RADIO PRODUCER

LEVEL : 6

RESPONSIBILITIES

Radio program producers plan, rehearse and produce live or recorded programs They work with the music, on-air personalities, sound effects, and technology to put together an entire radio show. They are involved throughout all phases of the Radio programing and broadcasting process from development to completion of a project. They also generate and research ideas for programs, source on-air contributors, write and develop scripts, select music for the show and listen to recordings to edit them into stories or segments.

KNOWLEDGE

Radio producers must have a good understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They should have good knowledge of principles and practices of radio broadcasting including programming, knowledge of principles and practices of FM broadcast transmission; ability to plan and supervise the work of others; ability to meet and deal with daily operational problems; dependability; resourcefulness.

SKILLS AND ATTRIBUTES

Radio program producers must be creative, and able to collect and interpret data. They should be able to develop and maintain effective working relationships with clients, colleagues, and suppliers. They must be professional, strong team players, possess creativity skills, and demonstrate leadership.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO PROGRAM PRODUCTION / PROMO

JOB TITLE : RADIO COPYWRITER / VOICEOVER

LEVEL : 5

RESPONSIBILITIES

Radio Copywriters are responsible for the linguistic content of adverts. They work across a range of media and formats, interpreting account briefs to compose advertorial content such as slogans, catchphrases, tweets, and scripts for radio adverts. Typical responsibilities include researching keywords, producing interesting written content, and proofreading their work for accuracy and quality.

KNOWLEDGE

Radio copywriters / VO must have good communication skills with other members of the programming team. They should also understand the overall process of Radio Programming on top of Audio and Video production and editing processes. They also need to be able to interpret creative direction and technical information and turn them into persuasive copy concepts.

SKILLS AND ATTRIBUTES

Voice over is expected to be able to skillfully control the voice and able to read eloquently from a script. A voice-over actor may be asked to read a script several times in different ways, emphasizing different words and using different emotions or accents. Being flexible with last-minute adjustments is also important. They need to have pleasant personalities and strong interpersonal skills.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO PROGRAM PRODUCTION / PROMO

JOB TITLE : AUDIO EDITOR

LEVEL : 4

RESPONSIBILITIES

Audio Editors apply effects and music to fit the specific contexts in which they will be used. They carry out sound design, implementation, post-production, and audio engineering. They also apply effects and music to fit the specific contexts in which they will be used. They also carry out sound design, implementation, post-production and audio engineering besides handling audio integration techniques, sound effects creation, interactive music, and implementation of sound assets.

KNOWLEDGE

Audio Editors should have a good understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They must have the ability to meet and deal with daily operational problems, dependability, and resourcefulness.

SKILLS AND ATTRIBUTES

Audio Editors must have an enthusiasm for audio production and music. Their duties involve working with dialogue tracks and recordings. They are expected to have pleasant personalities, strong interpersonal skills, a high level of commitment and a strong team pl. They should also be knowledgeable and professionally in work.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO PROGRAM PRODUCTION / PROMO

JOB TITLE : ANNOUNCER / TALENT

LEVEL : 3

RESPONSIBILITIES

Radio Announcers or talent play musical recordings or hosts or act on radio shows. They ensure the content, musical recordings and advertisements are played on time and interact with listeners. Announcers mostly work for radio stations presenting programs, talks shows, and chart shows. They are also responsible for creating, producing, and announcing topics over the radio, including entertaining programs, political commentary, news, interviews, weather, and other matters of interest.

KNOWLEDGE

Radio announcers or Disc jockeys should know the operation of all equipment at the station, as well as instruments used for remote recordings and broadcasts. They should also be able to help deliver programming that listeners are excited to tune into.

SKILLS AND ATTRIBUTES

Radio announcers should have a good understanding of editorial and the overall process of Radio Programming as well as an understanding of Audio and Video production and editing processes. They must have the unique ability to convey information in a relatable, informative way. They need to have pleasant personalities and strong interpersonal skills. They should also have an impeccable command of the Malay and English language and a good understanding of the equipment used in broadcasting.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO NEWS

JOB TITLE : EDITOR IN CHIEF / EXECUTIVE EDITOR

LEVEL : 6

RESPONSIBILITIES

Editor in Chief or Executive Editor has the final say in what is published and what isn't and leads the team of editors, copyeditors, and writers. They also ensure the quality of productions. They make the final decisions about which stories, articles and news to air and attend meetings with the management to discuss issues and plans for the programming and broadcasting. They also oversee the station’s operations and policies.

KNOWLEDGE

Editor in Chiefs must understand news editorial skills. Sometimes they write editorial pieces to contribute to the programming. They should know to choose the right angle for a story in aligning with the station’s objective and mission. Other knowledge required includes Organisational Management and Human Resource, Audio and Video production and editing processes, policies, legislation, and laws.

SKILLS AND ATTRIBUTE

Editor in Chiefs must possess strong leadership skills, be creative, and be able to analyse and interpret data. They should be able to develop and maintain effective working relationships with clients, colleagues, and suppliers. They must be professional, strong team players, have communication skills and be problem solvers.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO NEWS

JOB TITLE : BROADCAST JOURNALIST

LEVEL : 5

RESPONSIBILITIES

Broadcast Journalists conduct interviews and research, travel to the scenes of news events. They collect and write concise reports before broadcasting a story over the airwaves. This might entail investigating the background of a story, following leads, and conducting interviews. They also work with the radio producer and manager to put together an entire radio show.

KNOWLEDGE

Broadcast Journalists follow up leads from contacts and use the internet to generate stories for news and interest features, attend press conferences, ask questions, and rank news stories in order of importance. They need to choose the right angle for a story and choose appropriate images, locations and sound writing and edit scripts for bulletins and news reports.

SKILLS AND ATTRIBUTES

Broadcast Journalists might be working indoors or outdoors in all weathers and conditions. Able to work irregular hours including evenings, weekends, and public holidays; shift work is common. They also need to work to tight deadlines in a pressurised environment.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO NEWS

JOB TITLE : NEWS EDITOR

LEVEL : 4

RESPONSIBILITIES

News editors research stories, using the internet, archives and databases. They write scripts, and website or social media content and also stories or editorials that offer opinions on issues. They also review the editorial work by Junior Broadcast Journalists. News editors and broadcast journalists share many of the same responsibilities, editing content as necessary to make it presentable.

KNOWLEDGE

News editors need to be proficient with digital technologies. They should have excellent news editorial skills. Other skills might include media literacy, announcing, communication theory and interpersonal communication. They should know to choose the right angle for a story and choose appropriate images, locations and sound writing and editing scripts for bulletins and news reports. They need to have the ability to research for keywords, produce interesting written content and proofread their work for accuracy and quality.

SKILLS AND ATTRIBUTES

News editors must have an enthusiasm for editorial and strong English / Malay language skills. They are expected to have pleasant personalities, strong interpersonal skills, a high level of commitment and a strong team. They should also be knowledgeable and professional in work.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : RADIO NEWS

JOB TITLE : JUNIOR BROADCAST JOURNALIST

LEVEL : 3

RESPONSIBILITIES

Junior Broadcast Journalists assist senior broadcast journalists to decide policies of the usage of news and articles. They are also involved in transmitting breaking news, planning angles of news coverage and assisting in planning players of the marketing of news products. They are given assignments that they must research and develop into a story. This might include investigating the background of a story, following leads, and conducting interviews.

KNOWLEDGE

Junior Broadcast Journalists generate stories for news and interest features, attend press conferences, ask questions, and rank news stories in order of importance. They need to choose the right angle for a story and choose appropriate images, locations and sound writing and editing scripts for bulletins and news reports.

SKILLS AND ATTRIBUTES

Junior broadcast journalists must have an enthusiasm for journalism. They are expected to have pleasant personalities, strong interpersonal skills, a high level of commitment and a strong team pl. They should also be knowledgeable and professional in work.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : SOCIAL MEDIA

JOB TITLE : SOCIAL MEDIA EXECUTIVE

LEVEL : 6

RESPONSIBILITIES

Social Media Executives execute instructions from top management. They disseminate information to talented/graphic artists. They also coordinate meeting with news desk editors to decide on the content and high-profile news articles/features. They also transmit high profile breaking news via social media channels and attend to inquiries.

KNOWLEDGE

Social media executives must have good news editorial skills. They should be able to analyse social media campaigns with tracking systems to gather visitor data and determine efficacy and areas for social media campaign improvement. They also must manage other social media team members, including copywriters and other content creators, by overseeing their work and offering guidance or direction.

SKILLS

Social media executive develops engaging, creative, innovative content for regularly scheduled posts, which enlighten audiences and promote radio programme related messages. They also need to coordinate social media messaging with the marketing unit or top management to achieve the organisation goals. They must be creative and understand new media, have marketing skills and abide the ability to collaborate with teams to plan and develop content.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : SOCIAL MEDIA

JOB TITLE : CONTENT PRODUCER

LEVEL : 5

RESPONSIBILITIES

Content producers create digital content to provide information or showcase the production or services they offer on websiteayer or social media platforms. They develop content that accurately reflects company ideals, content writers often research the material they need to write and design each posting or product description. The content they create can be used as part of media, advertising, and marketing campaigns. They have to capture what is exciting about a radio programme, campaign and design the elements that can be used across media platforms and channels.

KNOWLEDGE

Content producers must have good and sound knowledge of news editorial. They also need to have a good understanding of website development and reading analytics based on visits and reach by the customers. They also need to have knowledge of graphic production and editing processes. A competent Content Producer should be able to conduct basic research and analysis.

SKILLS AND ATTRIBUTE

Content producers must have an enthusiasm for technology and creating great online experiences. They are expected to have pleasant personalities, strong interpersonal skills, a high level of commitment and strong team players. They should also be knowledgeable and professional in work.

MSIC GROUP: PROGRAMMING AND BROADCASTING ACTIVITIES

GROUP : RADIO

AREA : SOCIAL MEDIA

JOB TITLE : TALENT / VISUAL EDITOR

LEVEL : 4

RESPONSIBILITIES

Talent / Visual Editors translate creatively a writer's, producer's visions into a coherent, marketable, entertaining, or informative programme. They conceptualise ideas and think visually about how the material can be conveyed on social media platforms. They also decide about the appropriate graphic style.

KNOWLEDGE

Talent / Visual editors must be able to assemble, design and produce visual output based on a given idea or outline. They must be able to use digital visual editing tools to edit visual outputs to make them more appealing on social media platforms. They need to coordinate with the editor and the content producer to identify the concept or styles needed.

SKILLS AND ATTRIBUTES

Visual editors must have a good understanding of news editorial. They also need to have a good understanding of new media concepts or social media platforms. They also need to have knowledge of graphic production and editing processes. They are expected to have pleasant personalities, strong interpersonal skills, a high level of commitment and strong team players. They should also be knowledgeable and professional in work.