Evaluating the digitalisation of the Professional Hairdressing Industry and the impact on value chain stakeholders

Research report presented to the

Graduate School of Business Leadership

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by

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Submitted in partial fulfilment of the requirements for the degree
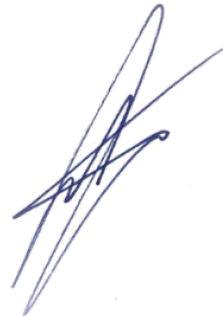
MASTER OF BUSINESS ADMINISTRATION

Supervisor: Dr. Sugandren Naidoo

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DECLARATION

I, **Lefa Nyepetsi Kokong**, hereby declare that this research report is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration, University of South Africa Graduate School of Business Leadership is my own work, except as indicated in the list of references, citations and acknowledgements and this work has not been submitted to any other university.

Signed & Dated: 15 December 2021

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ABSTRACT

Pandemic fear during COVID-19, as defined by Tarn (2021), has caused hairdressers, beauty salons, and distributors as well as the producers of professional hair care and colouring to come together to adapt the value chain of professional services to the new ways of operating to get the services, products, and experience to the consumers, due to the market shift to do-it-yourself and self-care beauty products (which would be ordered online during the heavy lockdowns) as per the RCA theory (Guthrie, Fosso-Wamba & Arnaud, 2021).

The research into the digitalisation of the professional hairdressing industry of South Africa, and the impact on the value chain stakeholder's, makes use of sequential (Quantitative-Qualitative) mixed method methodology. Data collected from the online monkey survey responses were analysed using descriptive and inferential statistics. The interviews were conducted online (virtually) with industry participants who form a pivotal part of the hairdressing industry value chain.

The findings concluded that digitalisation has influenced and transformed business and how business interact and transact with consumers, having created a convenient and an enhanced consumer experience with how the consumers interact and transact with business.

The influences digitalisation has on the key stakeholders within the professional products and services value chain, can be seen as positive and while there is industry value chain participant highlighted threats, there are also admitted opportunities raised through transformation by the industry value chain participants.

While there are identified problems and barriers to digitalisation, there are also value adding solutions the digitalisation of the professional hairdressing industry comes with, simply summarised by the high encouragement and belief in their being value by industry value chain participants. The research provides an understanding into how digitalisation has influenced and transformed business according to value chain stakeholders. It also, identifies the influences digitalisation has on the key stakeholders within the professional products and services value chain, and recommends solutions

in relation to the digitalisation of the professional hairdressing industry according to value chain stakeholders.

Keywords: Hairdressing industry; Value Chain Stakeholder; Digitalisation, Mixed method approach

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ACRONYMS

B2B	Business-to-business
B2C	Business-to-consumer
RCA	React-Cope-Adapt
SETA	Sector Education and Training Authorities
TVET	Technical and Vocational Education and Training
HCSBC	National Bargaining Council for Hairdressing, Beauty, Cosmetology and Skincare Industry
US	United States

CHAPTER 1: INTRODUCTION

1.1 Introduction

The COVID-19 pandemic played a big part in accelerating the digital era, solidifying the eras is inevitability in our lives. Hantrais *et al* (2020:257) emphasise this by describing and recognising the digital world as "crucial to the functioning society." From working and schooling online to e-health online appointments and therapies, as cited by Hantrais *et al* (2020:266), the digitisation of our lives is fast becoming the new normal. When studying online consumer resilience during the pandemic, Guthrie *et al* (2021:1) summarise the findings by Tran (2021) by noting that, "the fear of the pandemic has notably influenced consumer perceptions of the economic and environmental benefits of e-commerce platforms" and has accelerated the already growing trend of e-commerce with increasing online purchases globally.

Using the stages of React-Cope-Adapt (RCA) theory by Guthrie *et al* (2021:3) which looks at how consumers reacted to the pandemic and restrictions, how the consumer coped with the pandemic and restrictions, as well as how the consumers adapted their consumption habits to the new normal, Guthrie *et al* (2021:13) concluded that "online consumers react, cope with, and then adapt to such stressful life events" with there still being an increase in the number of consumers reordering online in the adapting stage versus the pre-pandemic period.

Many consumer goods, services, and experience organisations have looked to e-commerce to become an essential part of doing business. Tran (2021:7) recommends that "firms must strategically build e-commerce platforms and operate in conjunction with offline methods for supplies because consumers turn to online sources to avoid infectious diseases and are increasingly engaging in sustainable consumption behaviours". The fear of the pandemic, referred to as pandemic-fear by Tran (2021), require organisations to adapt, just as consumers have, by allowing their value chains to support both an online and offline means of providing goods and services in a manner that satisfies to keyways of transacting, namely:

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- business-to-consumer transactions and;
- Business-to-business transactions

1.2 Background

Aesthetic beauty and personal physical image have gained personal and economic value to all age groups and genders, making the South African hairdressing industry a key player as socio-economic contributor, as suggested by Rambe and Mpiti (2017:101). The two authors describe beauty salons as "places for reaching and engaging with diverse communities" citing how, "beauty salons are considered safe spaces where individuals can focus on personal appearance, receive community news, and socialize."

Furthermore, the South African hairdressing industry plays a considerable part in contributing to the economic growth of the economy. In the Services SETA (2016:32) Project Hair Report, the hairdressing industry is cited as adding value to three economic elements, namely:

- The remuneration of employees
- Beauty salon profits
- Net indirect taxes

According to a Services SETA (2017) research report summary, the hairdressing industry is divided into a formal and informal sector, with the formal sector earning a potential of R30 000 per month, while the informal sector has a base salary of between R2 245 to R8 000 per month, with hairdressers eligible for up to 35% commission based on their experience. The sector also harbours several jobs namely:

- Executive stylist
- Junior stylist (completed courses but not the trade test)
- Senior stylist (once learner has completed the trade test)
- Assistant manager
- An educator (at a beauty salon college/TVET college)
- Beauty salon manager

- Moderator/assessor for new hairdressers
- Master hairdresser
- Beauty salon owner
- Consultant who works with a brand to promote hair products at beauty salons

In 2015, the Services SETA (2016:32) Project Hair Report estimated that there were 185 415 employees in the hairdressing industry which comprised of 58 218 that were skilled, 98 847 that were semi-skilled, and 31 350 unskilled employees, which contributed an estimated R15.99 billion rand to households, making up 0.67% of the National Disposable Income in South Africa.

The report goes on to state that, "the total impact of the hairdressing industry on South Africa's GDP is estimated to amount to approximately R24.85 billion, which amounts to 0.62% of South Africa's total GDP, of which the direct impact is estimated at R410 million, the indirect impact at R15.07 billion, and the induced impact at R9.37 billion" and goes on to summarise that "the nature and magnitude of the indirect and induced impacts emphasise the importance of the so-called multiplier effects which the hairdressing industry will have on the South African economy".

1.3 Research problem

The 2021 United States (US) Industry and Market Report: Beauty Salons Industry Report (2021:6) define beauty salons as "establishments (except those known as barber shops or men's hair stylist shops) primarily engaged in one or more of the following:

- cutting, trimming, shampooing, weaving, colouring, waving, or styling hair;
- providing facials; and
- Applying makeup (except permanent makeup)

Beauty salons were one of the heavily impacted industries by the Government lockdown due to the nature and level of contact a beauty salon process takes. In accordance with the directions issued in terms of regulation 10(8) of the regulations under 27(2) of the Disaster Management Act, 2002 (Act no. 57 of 2002), measures to prevent and combat the spread of COVID-19, beauty salons were deemed a

substantial risk by the South African Minister of Cooperative Governance and Traditional Affairs, Dr Nkosazana Dlamini-Zuma. From simple wash and dry routines to hair colouring and masking, the entire beauty salon service is one that requires an important level of person-to-person contact. The minister also raised concern about social distancing in her address on the 29th April 2020.

During the lockdown period, some consumers began settling for cheaper, nonprofessional products to continue their hair care and colouring routines at home, while others continued to do house calls with their hairdressers. In interviews conducted by Brown (2020) for Business Insider SA, hairdressers admitted to getting calls from clients, being quoted as saying, "a lot of hairdressers in the industry are single mothers, and they are desperate for money. They need to feed their kids" and even admitting to knowing "hairdressers who had been arrested by the police, put into jail while awaiting bail and fined for illegally practising their trade during the lockdown".

Even with these risks, Brown (2020) posits that hairdressers did take precautions such as masking and sanitising to avoid any possible spread and infection of the COVID-19 virus, while others stopped doing any work to avoid any penalties for being caught and risk losing more money. The hairdressers who did risk it were able to keep earning money during this period, but it was not easy, given the travel restrictions and access restrictions in many gated or complex communities, a consumer's hairdresser would have to be in and around the area they live in, and the consumer would have to live in a standalone property.

In the time post the hard lockdown, beauty salons were allowed to operate but at 50% capacity as per the COVID-19 restrictions. Beauty salon owners and hairdressers were ready for a large influx of clients and had put in place COVID-19 health and safety measures to ensure minimal contact, as well as ensuring a clean and sanitised environment. While this was true, the wave was short lived and lower than expected by beauty salon owners and hairdressers, as consumers had adapted as per the RCA theory by Guthrie's *et al* (2021, 3), and had either moved to do-it-yourself and self-care beauty products (which would be ordered online), while others were reluctant to come out given that there had not been a vaccine created at that time, driven by pandemic fear, as suggested by Tran (2021).

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Hence, the formulated research statement for this study is*:*

To identify the impact of digitalisation of the professional hairdressing industry of South Africa on the value chain.

1.4 Aim of the study

The research aims to educate and give insight to the South African Hairdressing industry value chain stakeholders on the concept of digitalisation. In addition, also providing feedback on the investment is deemed worthwhile by the industry and recommending how the digital transformation of the value chain stakeholders can be created.

1.5 Research question

The shift in market dynamics has made it important for hairdressers, beauty salons, and distributors as well as the producers of professional hair care and colouring, to come together to find a way to adapt the value chain of professional services to the new ways of operating. This is to get the services, products, and experience to the consumers. Throughout this value chain, the questions become:

- What factors have influenced the digitalisation and transformed business in the professional hairdressing industry?
- What is the influence of digitalisation on the key stakeholders within the professional products and services value chain in the professional hairdressing industry?
- What are the recommendations for the professional hairdressing industry in relation to digitalisation of the professional hairdressing industry?

1.6 Research objective

To address the research question, the objectives are to:

- Understand the factors of how digitalisation has influenced and transformed businesses.
- Identify the influences digitalisation has on the key stakeholders within the professional products and services value chain.

- Provide recommendations to the value chain stakeholders in relation to the digitalisation of the professional hairdressing industry.

1.7 Abbreviated literature review

The literature review will set out to address the effect that the digitalisation concept has on businesses. In addition, the advantages and disadvantages digitalisation may present; especially within an industry that consists of both product and services streams of doing business. The review will look at key stakeholders that form part of the industry as a value chain and look to analyse how these key stakeholders are individually impacted.

1.7.1 Digitalisation

Hagberg, Sundstrom and Egels-Zanden (2016:706) define digitalisation as "the integration of digital technologies." The authors further describes digitalisation as "one of the most significant on-going transformations of contemporary society and encompasses many elements of business and everyday life". Hagberg *et al* (2016:694) emphasise that digitisation is inevitable.

Strønen (2020:232) summaries the use of digitalisation by suggesting that digitalisation has an impact on:

- how work gets done
- transforming the way in which customers and businesses engage
- Creating a new stream of revenue for business

In the literature review, the research report will investigate 4 key aspects covering digitalisation and its impact, which are:

- The definition and differentiation of digitalisation versus digitisation respectively (Zakaria, 2019; Strønen, 2020)
- The Scale of Digitisation as per Strønen (2020) and the degree, based on levels of digitalisation

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- The transformation of digitalisation (Hagberg *et al*, 2016) and the impact on how businesses and consumers engage, and the change in the way things are done.
- The barriers of digitalisation in the South African context according to the report on enabling capabilities and the performance of SME e-retailers in South Africa (Maphanzela, 2020), and further substantiated by Singh's (2021) "Barriers to Digital Inclusion."

1.7.2 Value chain stakeholders

As noted by the Services SETA (2017) earlier, the South African hairdressing industry creates a vast a number of jobs in contributing to the economy and the everyday lives of South Africans. While those jobs are directly involved in delivering the beauty salon service and experience, there are stakeholders who makes up the value chain. These stakeholders see to it that hairdressers can deliver consultation, services, and products that lead to customer satisfaction, whilst earning the hairdresser a living.

According to Zamora (2016:118), because every strategic decision taken requires some form of investment in resources, each stage in the sequence of operations should add value. Zamora (2016:118) identifies two levels in which activities that create value takes place namely industry value chain, which is value created within the industry a company operates, or a firm's value chain, which a company creates within itself.

During this research, four key stakeholder groups, namely, 1) the manufacturers and suppliers of hair care, colouring, and styling products and equipment, 2) the key accounts, distributors, and wholesalers of hair care, colouring, and styling products and equipment, 3) regular beauty salons and hairdressers, as well as 4) consumers of both hair care, colouring, and styling products and beauty salon services were identified. These stakeholder groups will be analysed as industry level value chain components in business-to-business and business-to-consumer operating models of the hairdressing industry.

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1.8 Research methodology

In this section, a summary of the research methodology use in the study will be presented.

1.8.1 Research approach, method, and collection

"Quantitative research comprises research studies in which observations are measured and expressed in numerical form, such as in physical dimensions or on rating scales", writes Wienclaw (2021:4). To analyse the results of quantitative research studies, researchers numerically quantify the results obtained, and make use of statistics to draw conclusions of the findings.

Zangirolami-Raimundo, Echeimberg and Leone (2018:356) observe 4 types of study designs:

- Series of cases
- Cross-sectional
- Case-control
- Cohort studies

For this report, the researcher will be using a cross-sectional method. Zangirolami-Raimundo *et al.,* (2018:356) identify the main characteristic of the cross-sectional method as an observation of variables or variations. Given the sample group, respondents will be from varying parts of the value chain and thus, varying aspects of the industry.

The research will be performed using the mixed method. Statistical feedback from the sampled population using questionnaires and a survey. Given that a cross-sectional method is being used, the researcher will also make use of qualitative responses to support and give context to the quantitative results. The qualitative aspect of the research will make use of Thematic analysis and coding to substantiate and further explain the findings in the quantitative analysis.

In the distribution of the questionnaires and surveys, ethical considerations and signed approval will be obtained from the identified industry value chain stakeholders that have participated in the study.

1.8.2 Population and sample framework

The population that the report will address are the stakeholders within the Professional Hairdressing industry who were/are affected by other industry participants. The target population and sample are presented in Table 1.1 below.

Table 1.1: Target population and sample

Identify the participant groups targeted for the research	Site population size	Age category of group
Hairdressers and Personal care services	185 415	18 to 60
Beauty Salons	37 000	18 to 60
Sampling method	**Sample size**	**Justify sample size**
Manufacturers and Suppliers	10	The sample includes key personnel and strategic decision makers with experience in the industry
Distributors and wholesalers	10	The sample includes business owners with experience and insight into the industry
Beauty Salon Owners/ Mangers	30	The sample includes experienced individuals who are directly involved in the running and management of salons
Hairdressers	30	The sample includes experienced individuals who offer and perform the salon services
Consumers	20	The sample includes experienced individuals who are the final users of products and salon services

This population will cover the various individuals, employees, and decision makers that drives the stakeholders in the value chain, thus a) the manufacturers and suppliers as well as the key accounts, distributors, and wholesalers of hair care, colouring and styling products and equipment, b) the regular beauty salons owners, managers, and hairdressers, and c) the consumers of both hair care, colouring and styling products

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as well as beauty salon services. This in turn means that the sample will consist of experienced business owners, hairdressers, industry professionals with actual knowledge and technical knowledge of the industry workings, as well as employees and corporations who offer the amassed strategic and existing research knowledge of the industry.

1.8.3 Data collection instruments

Two core means of data collection have been used for the research, being online questionnaires and interviews

1.8.3.1 Online questionnaires

According to Kabir (2016:244), a survey is "a good way of gathering a large amount of data" and providing a broad perspective. The questionnaire addresses the 3 main objectives by questioning the value chain stakeholders understanding of digitalisation and use of digital transacting, determining the perceived and practical impact and influence digitalisation has had on the hairdressing industry by stakeholders and enquiring the barriers withholding stakeholders from digitalisations well as the desire and willingness to want to digitally transform.

1.8.3.2 Interview

For this study, the researcher used semi-structured online (virtual) interviews to collect qualitative data. Semi-structured interviews allow for probing open-ended questions to be asked for independent opinions around the topic without feeling pressured by focus group peers (Adams, 2015:494). The semi-structured online (virtual) interviews will also address 3 main objectives by questioning the value chain stakeholders understanding of digitalisation and use of digital transacting, determining the perceived and practical impact and influence digitalisation has had on the hairdressing industry by stakeholders and enquiring the barriers withholding stakeholders from digitalisations well as the desire and willingness to want to digitally transform.

1.8.4 Data analysis quantitative

The study makes use of a mixed method approach, which thus makes use of descriptive statistics derived from questionnaires to draw quantitative comparisons, parallels, and conclusions based on the questionnaire choices and coding made by respondents through close-ended questions.

1.8.4.1 Validity and Reliability

According to Heale and Twycross (2015:66) validity and reliability enhance the quality of studies, not only when considering the results, but also when considering the extent of research being done.

To achieve internal validity, this research was controlled, and the study measured, supported by strong research methods, which relied on the actual feedback from industry participants based on their experience and knowledge. To achieve external validity, the extent to which the research results can be inferred to the world at large was tested by checking if a causal relationship discovered in the study could be generalised or not, as well as the degree to which the study was warranted to generalise the result to another context within other service industries.

In research, reliability refers to the consistency of a study or measuring device (McLeod, 2013). A reliable measurement is one where the measurement can produce comparable results if used again in similar circumstances.

The data gathering instrument for the research addressed both internal and external reliability by using internal consistency is by adopting the Cronbach Alpha coefficient approach.

1.8.5 Data analysis qualitative

As part of the mixed method approach, the Thematic Analysis is used to analyse the quantitative aspect in order to substantiate and further explain the findings in the quantitative analysis. Qualitative analysis requires that the data analysed is trustworthy.

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1.8.5.1 Trustworthiness

According to Connelly (2016:435), trustworthiness is defined as the degree of confidence in the data, how that is interpreted as well as the methods used to evaluate a study's validity. The criteria for identifying and verifying the extent of the research conducted includes looking at the credibility, dependability, conformability, transferability, and authenticity of the research by also analysing the accuracy and the consistency of the collected data. The procedures and methods should be documented by the researcher.

1.9 Ethical considerations

Fleming and Zegwaard (2018:209) highlight the importance of ethical considerations by writing that, "in addition to the importance of selecting an appropriate research methodology and methods is the importance of the ethical considerations around conducting the research". This research endeavours to gain informed consent and offer protection from harm, as well as the right to privacy to the respondents, participants, and researcher. A clearance certificate from the UNISA SBL Ethics committee will be obtained prior to data collection to ensure the ethical considerations are abided by.

1.9.1 Informed consent

All interviews, questionnaires, and surveys will be conducted and obtained from participants with consent, and the participants will be fully aware of the nature of the research.

1.9.2 Protection from harm

Participants will not be subjected to any physical or mental discomfort. The contents and recommendations of the research will be provided only to the organisation, and all information in this regard will be kept confidential.

1.9.3 Right to privacy

All respondents and participants will have their names, personal details, as well as their responses and contributions to the research protected.

1.10 Format of the study

The study is presented in five chapters:

Chapter 1 Introduction: This chapter provides an introduction and background to the study, the aim of the research, the research problem, objectives, as well as a brief summary on the methodology used to conduct the research.

Chapter 2 Literature review: This chapter provides a conceptual framework as well as an analysis of existing literature around the core themes of the research namely digitalisation as well as value chain stakeholders.

Chapter 3 Research methodology: This chapter provides the methodology used to conduct the research, taking into consideration the population and sample, the data collection instruments used the methods used to analyse the data as well as any ethical considerations required for the research.

Chapter 4 Research results and discussion: This chapter provides and descriptively analyses the data gathered, drawing numeric correlations, and results for the quantitative findings of the research as well as the thematic correlations and findings to support the quantitative findings of the research.

Chapter 5 Recommendations and conclusions: The fifth and final chapter makes use of the analysis, findings and results of the research to answer the research problem and objectives by fulfilling the aim of the research as well as allowing the researcher to provide justified recommendations based on the research analyse to the value chain stakeholders and industry at large.

1.11 Conclusion

In conclusion, the research titled *The Digitalisation of the Professional Hairdressing Industry of South Africa*, and the impact on the key value chain stakeholders aims to use the findings to contribute to the professional hairdressing industry to both equip and empower the stakeholders with the knowledge and tools to succeed. The research, through the literature review, research methodology, and research results aims to allow hairdressers, beauty salon owners, distributors, and wholesalers, as well as product manufacturers and importers a glimpse into the risk and opportunities presented by the digitalisation era.

Overall, the research not only looks to advise the population in the industry, but also to provide enough reassurance of their investment, financially, personally, and emotionally, in the success of the hairdresser industry. In the next chapter the advantages and disadvantages of digitalisation is presented, as well as the opportunities and risks that come with the ideology.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Fink (2019:6) defines a literature review as "a systematic, explicit and reproducible method for identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practitioners". The literature review of the report on the digitalisation of the professional hairdressing industry of South Africa, and the impact on the key value chain stakeholders, looks to gain an understanding of what already exists on the topic to ensure the report is both credible and reliable, and to review the concept.

In investigating the digitalisation of the professional hairdressing industry of South Africa and the impact on the key value chain stakeholders, the researcher uses the literature review to elaborate on the impact the digitalisation concept has on businesses and consumers. The literature identifies theories around digitisation based on the degree, transformation, and barriers that are applicable to the concept of digitalisation. The literature also applies and analyses the stakeholder model to the value chain to determine how value is created within the industry, and the stakeholders' role and link in the value chain.

2.2 Conceptual framework

Below is the conceptual framework of the research with the core elements, namely digitalisation and the value chain stakeholders looked at.

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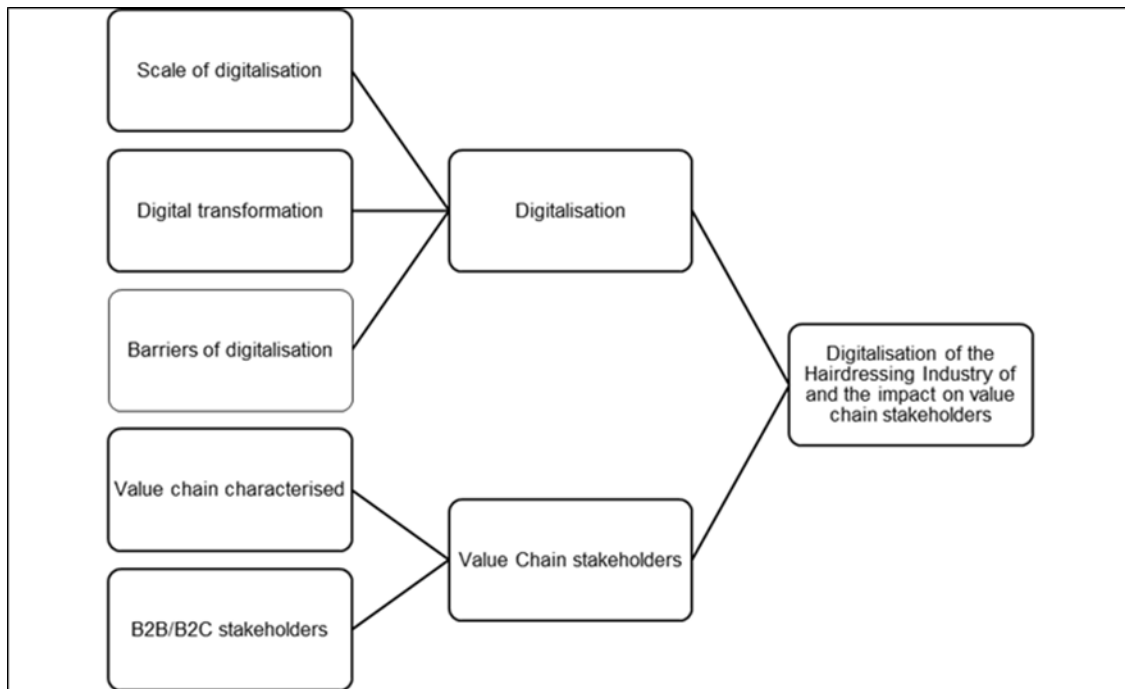
Figure 2.1: Conceptual framework

Source: Author

The conceptual framework for the digitalisation of the South African hairdressing industry is based on the review of literature in digitalisation, and on the transformation and barriers related to digitalisation as well as the value chain based on B2B/B2C modelling used to allocate stakeholder roles within the value chain as the core themes of the research.

2.3 Digitalisation

Strønen (2020:231) found that by the end of March 2020, Google recorded 8.9 million hits for "digitalisation" and 103 million hits for "digitisation" on the popular search engine. While these two ideas coexist and go together, they are both fundamentally different, but are both the main components required to open the door for organisations to enter a digital economy (Zakaria, 2019:3).

2.3.1 Digitalisation defined and differentiated

The terms digitisation and digitalisation were found to be synonymous with the concept of digital transformation, where the digital transformation is described by Zakaria (2019:60) as "a tangible step-by-step transformation for an organisation via the

introduction of digital technologies". Digital transformation gave birth to the digital economy and came about because of market forces (such as consumers and competitors). Internal forces (such as new workforces and leadership changes) are operating and resulting in digital transformation creating:

- New ways of running a business.
- New products and services.
- Enhancement of the existing products and services.
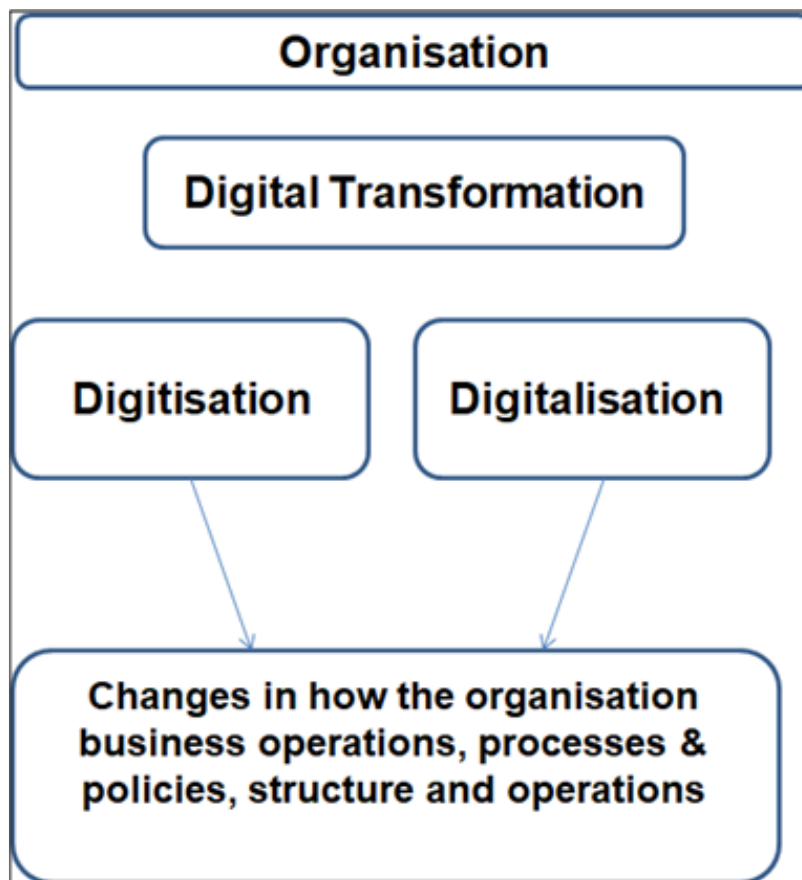
Figure 2.2: The Organisation
Source: Zakaria (2019:6)

Strønen (2020:232) differentiates between digitalisation and digitisation by describing digitisation as "the conversion of analogue to digital" while associating digitalisation with "the use of digital technologies and digitized data to impact how work gets done, transform how customers and companies engage and interact, and create new (digital) revenue streams". In agreement, Zakaria (2019:4) gives an example of digitisation as where an organisation introduces a communication system that allows for more

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efficient decision making as well as information and knowledge sharing, while characterising digitalisation as the adoption of digital technologies and use of technology-based products or services that stem from digitised processes, to generate a digital stream of revenue.

2.3.2 The Scale of digitisation

Strønen (2020:232) establishes the degree in which digitalisation takes place, based on a theory named the Scale of Digitisation as presented in Figure 2.3 below.

Figure 2.3: The Scale of Digitisation
Source: Strønen (2020:232)

In this scale (of digitalisation) there are 4 levels in which digitalisation is created and consumed by the market.

2.3.2.1 Pure digital

Pure digital is the level of digitalisation in which the core existence and consumption of the product or service is digital. Examples by Strønen (2020:232) include online games, software, streaming services (audio and visual) as well as photography. The products and service are both produced digitally and consumed digitally by customers.

2.3.2.2 Digital distribution

Digital distribution is the level in which products and services are distributed in digital format, but the experience or consumption of the product or service may not be in digital format, according to Strønen (2020:232). Examples include flight tickets, cinema tickets, or concert tickets in which the experience or consumption thereof is not digital. One must physically board a flight and attend a motion picture screening or concert.

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2.3.2.3 Digital Information

In the level of digital information, information regarding the availability and the characteristics of the product or services are digital. According to Strønen (2020:232), traditional online shopping, where a customer can find information and purchase products, is also a digital information format.

2.3.2.4 Additional digital services

Strønen (2020:232) cites additional digital services as "additional utility and creating extra services or even more streamlined services to the services or products provided". In this format, digital is used to enhance the experience of a product or service. An example is applications (apps) that are used for receipts by grocery stores or mobile phone apps that control functionality within a car.

By understanding the distinct levels and degrees of digitalisation, businesses can transform by introducing new ways of working or changing existing products and services.

2.3.3 Transformation of digitalisation

Digitalisation has brought about transformation. As described by Hagberg *et al* (2016:706), while e-commerce is a big part of the transformation, digitalisation has managed to transform the:

- Physical products into digital services
- Consumer interactions from social media
- The purchasing process by providing information to drive offline purchases

Using retailing, consumption, and marketing journals supported by other academic work, Hagberg *et al.* (2016:699) identify four main elements where transformation has taken place for businesses and consumers:

2.3.3.1 Digitalisation of exchanges

The exchange between customers and business has been transformed by digitalisation, with three of the transformations identified as the communication channels, the transactions, and the distribution.

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- **Changes in communication channels** – Not only is the direct communication between business and consumers adapting to digitalisation, but business can also make use of social media and 3rd party communication, which communicates aspects such as price, deals, and allows for comparisons. "Information regarding various aspects of the exchange becomes available and can increase transparency," writes Hagberg *et al* (2016:699).

- **Rapid increase in transactions** – The frequency of transactions has transformed due to digitalisation. This is because of the transaction process simplification using digitalisation. Hagberg *et al* (2016:700) uses the example of how e-commerce has made the ordering process faster, where previously business and customers would mail or phone to place an order; digital platforms have made for quicker and more efficient ways to get an order communicated. Digitalisation transformed transactions by introducing click and collect functions; instore navigation has been digitalised to help navigate, as well as allowing digital payments instead of cash payments. All this has resulted in the transaction process being more pragmatic, allowing more transactions to be processed.

- **New forms of distribution** – Digitalisation has transformed the physical look and the format in which products are distributed. Hagberg *et al* (2016:700) highlights the distribution of music from vinyl to send, and now streaming as an example of how the form or distribution of music has changed. Even with products that take on a physical format, use of EAN and QR codes add to the digital dimension of products, while click and collect services, as well as online shopping make for faster and more efficient distribution.

2.3.3.2 Digitalisation of roles

Digitalisation comes with a host of new roles for businesses and consumers. Hagberg *et al* (2016:699) expands on the roles brought about by digitalisation with three types of transformations:

- **Combining of human and digital technologies** – Human and digital technology connection becomes more important as the number of digital transactions increase, as well as the purpose or nature of the transactions

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broaden. It is why Hagberg *et al* (2016:700) explain the phenomena by admitting that "agency cannot solely be attributed to the individual human customer but a network that involves humans and different objects and devices (shopping carts, computer stations, smart phones) that act collectively".

- **Blurring boundaries** – Digitalisation has also led to difficulty in separating certain roles of the business and customer. Some activities, which were once managed by the business, are now actioned by the consumer and vice versa. By enabling the connection of business, employees, and customers, digitalisation also allows for blurred boundaries, which, as per Hagberg *et al* (2016:701), are because of the interrelation between production and consumption.

- **New actors, roles, and relationships** – Even with digitalisation changing the business and customer roles, there is a change in the role of intermediaries, while also changing the relationships of the existing roles. In some industries, intermediaries may be nullified entirely while in others, intermediaries may adopt a new role entirely. Hagberg *et al* (2016:701) use the direct relationship that customers could have with manufacturers now, that may force intermediaries to create value through services, with marketing being an example. The researchers go on to argue that with the change in roles, and consumers using tools such as social media, they may have more power in their favour in the business-customer relationship if the customers take on a new role.

2.3.3.3 Digitisation of settings

The setting is the environment in which the business and customer now interact. Hagberg *et al* (2016:701) gives an example of a setting being the traditional store (for a business) or the homes (for the customers). The researchers identified three aspects regarding settings that transform.

- **Changes in traditional settings** – Hagberg *et al* (2016:701) cite the number of digital technologies such as mobile devices and smart televisions as the reason for the changes in traditional settings, due to the "increased

communicative capabilities" of the technology. While online stores have increased, traditional stores have also used digitalisation to change the roles of the business and consumers to still make money. In fact, according to Hagberg *et al* (2016:702), digitalisation has been used as a tool to strengthen brick and mortar store performance, with most of the redundant businesses being those that failed to adapt.

- **New Setting** – Digitalisation has led to new settings for businesses. According to Hagberg *et al* (2016:703), two forms of new settings have developed because of digitalisation: 1) Increase in mobility, where aspects such as searching for information, ordering, and making payments can take place outside a fixed store. 2) The new locations can act as collection or delivery points for customers and businesses respectively simplifying both normal logistics and reverse logistics.

- **Intermixing settings** – The traditional and digital settings are merging. Businesses have made use of both platforms, much like businesses that operate on Strønen's (2020:232) digital distribution level on the Scale of Digitalisation, where "products and services that are distributed in digital format, but the experience or consumption of the product or service may not be in digital format". The setting of distribution may be virtual, but the setting of consumption is physical.

2.3.3.4 Digitalisation of offerings

Blurred boundaries have developed between the products and services businesses offer customers, with digitalisation acting as a catalyst in blurring those boundaries that differentiate the two (Hagberg *et al*, 2016:702). Technologies have now been integrated in the products and services, which transformed offerings and how the offerings are priced, according to Hagberg *et al* (2016:702), with three types of transformation taking place:

- **Changes in products and services** – With the use of digitalisation, businesses have introduced virtual and material aspects in their offerings. Hagberg *et al* (2016:702) found that business have integrated more digital

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features in offerings, but the material aspect in many offerings remain. The research notes that, "materiality remains an important part of these practices, as embodied in equipment".

- **Extensions of offerings** – Digitalisation is cited by Hagberg *et al* (2016:702) as allowing products and services to extend their offerings and ranges to customers. Increase in assortment helps businesses with increasing distribution and profitability, due to there not being a fixed parameter (like a store) that can only fit the most popular items.

- **New forms of pricing** – As already mentioned, digitalisation has contributed to making changes to products and services, allowing there to also be an extension in assortments and ranges. Through this, Hagberg *et al* (2016:702) identified new pricing and pricing strategies as the result of changes and ranges. Businesses have managed to run new promotions and make use of new pricing techniques for pricing representation, off and online.

Digitalisation has allowed for many changes and transformation to take place that have reshaped transactions and the relationship between business and customers, re-engineered the environment of trading and diversified products and services to maximise both distribution and profitability. The impact of digitalisation is summarised by Parviainen, Tihinen, Kääriäinen and Teppola (2017:66) into three different viewpoints:

- Internal efficiency due to improved ways of working via digital means and re-planning internal processes
- External opportunities with new business opportunities in existing business domain (new services, new customers)
- Disruptive change as digitalisation cause change in business roles

2.3.4 Barriers of digitalisation (in South African context)

In the first part of the literature review, the report covered what digitisation is, the levels and degree in which digitalisation takes place, as well as how digitalisation has, and can, transform the scope of business and trading. While digitalisation has become the

key driver of the digital economy and moving into the 4th Industrial Revolution, there are still barriers that act as a disincentive for digitalisation.

Maphanzela (2020:37) notes that the South African e-retail industry as "demonstrating low levels of penetration due to the significant accessibility challenges" Singh (2021) cites digital inequality as a critical short-term threat, noting that the wider the digital gap becomes, the worse the chances are for a digitally inclusive society. Maphanzela (2020:49) identifies barriers in creating a digitised ecosystem for businesses.

2.3.4.1 Connectivity

South Africa finds itself in a connectivity dilemma, which caused a digital divide due to the country's limitation in internet access and inability to make effective use of the internet. According to Maphanzela (2020:49), this is recognised by the National Treasury of South Africa as an element that is hindering the growth of e-retailers in South Africa. Limitations in spectrum caused service providers' pricing to be high. Maphanzela (2020:53) suggests that fibre connection is the most cost-effective means of connection and recommends that businesses "contact service providers and consult on a solution that would be best suited for their enterprise and its needs without overburdening the enterprise financially".

A further divide is caused by the businesses operating in urban areas having quality internet infrastructure such as fibre, as compared to those operating in underserviced communities such as rural and underdeveloped townships. Singh (2021) further elaborates on this divide while acknowledging how COVID-19 expanded digitalisation and accelerated the Fourth Industrial Revolution. The cyber security leader cites digital inequality as a critical threat: "A widening digital gap can worsen societal fractures and undermine prospects for an inclusive recovery".

2.3.4.2 Cyber security

One of the key considerations of digitalisation is cybersecurity. Consumers cannot touch products or immediately access services (Maphanzela, 2020:55), therefor trust between businesses and consumers is strongly based on perception. To combat consumer concerns such as trusting payments systems, as well as privacy and data security concerns, Maphanzela (2020:55) stresses the importance of customer

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satisfaction. Customers need to trust the virtual business, and this trust is achievable through consistency in excellence and cultural appropriate virtual interfaces to ensure consumers feel safe in the business' virtual space.

2.3.4.3 Logistical infrastructure

As part of transaction fulfilment, logistic functions play an important part in businesses having their products reach consumers. This aspect also contributes to the perceived quality and reliability of virtual businesses, which contributes to the cybersecurity of consumers, as previously discussed. According to Maphanzela (2020:55), along with the lack of readily available solutions where businesses use internal resource to fulfil transactions (which requires investment), businesses will still "encounter the infrastructural challenges posed by poor road infrastructure, limited quality connectivity required for ICT gadgets like a GPS to fulfil orders". Businesses recognise logistics as an important part of the digitalised ecosystem that could lead to the collapse of the entire system, and many opted to outsource logistics solutions to partners to fulfil orders.

2.3.4.4 Financial inhibitors: payment methods and funding

Two key financial aspects identified by Maphanzela (2020:62) that hinder the progress of business' digitalising are access to funding and the financial infrastructure to transact with customers. The researcher attributes slow economic growth and the regulations for South African financial institutions as the actors limiting access to funding for entrepreneurs. According to Maphanzela (2020:62), credit cards and debit cards are the preferred methods of payment, but access to credit is heavily regulated, with lower interest rates only accessible to the middle and upper class. Maphanzela (2020:62) further states that, "a large portion of South Africa's population cannot use online shopping because South Africa has a high number of individuals who are unbanked or under banked due to South Africa's' high banking fees and the inaccessibility of banking institutions in remote and rural areas".

2.3.4.5 Human Capital

For businesses to be able to digitally transform, they need adequate employees to implement and maintain virtual ways of working and innovative technology systems.

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Maphanzela (2020:62) concludes that the "result of the misalignment between the capabilities that the current human capital pool possesses and the job market demands within the 4IR, numerous jobs will not only be lost but numerous job opportunities will not be filled".

Businesses need to recruit from an already scarce pool of skilled resources, or empower and educate employees in new digitalised technologies, which both require resources, as a scarce skills pool drives up the cost to recruit and retain talent, while courses and education to close the knowledge gap of current employees may be costly too.

2.3.4.6 Government regulation and taxation

As is, Maphanzela (2020:67) finds that the South African government currently does not have a regulatory framework for e-commerce, and with the tax systems in place, are unable to effectively address the taxation of e-commerce transactions. The lack of government regulation and taxation makes navigating in the digital economy very risky. The researcher cites the main reason for the inadequate taxation of e-transactions is because the South African tax system was created before there was digital economy.

According to Singh (2021), who cites "Regulatory Techlash" as a barrier to digitalisation, governments are increasing consumer protection and ramping up regulatory pressures on the digital market. While this may reduce services overall, governments are attempting to "empower consumers and users by fostering more competition and regulating anti-competitive practices".

Due the lack of regulation, Maphanzela (2020:67) suggests that businesses looking to commercially digitalise, need to familiarise themselves with certain laws to ensure they are not at risk, which include:

- The Consumer Protection Act of 2008
- The Electronic Communications Act of 2005
- The Electronic Communications and Transactions Act of 2000
- The Independent Communications Authority of South Africa Act of 2000
- The National Credit Act of 2005

- The Promotion of Access to Information Act of 2000
- The Protection of Personal Information Bill of 2009
- The Regulation of Interception of Communications Act of 2002
- The South African Constitution

The barriers that impact businesses may differ based on the level/degree of digitalisation and transformation that the business requires, with pure digital businesses likely to have the highest impact of the mentioned barriers, and businesses that operate at an additional digital services level likely to be the least impacted by the barriers.

2.4 Value chain key stakeholders

Value creation is an essential part of any successful business model. Value added implies both the creating and capturing of value (Zamora 2016:118). Similarly, in an industry chain, each stakeholder in the chain is expected to add value.

2.4.1 Value Chain vs Supply Chain

Value chain and supply chain are two similar concepts but have philosophical differences. Zamora (2016:119) summarises the differences best when distinguishing the two ideas based on how the theories are managed, by stating: "supply chain management is on efficiency, market access, and increased distribution, the emphasis of value chain management is on quality, service, and agility with distribution determined by consumer demand rather than capacity utilisation". When applying the supply chain versus value chain method below, the hairdressing industry is considered a value chain:

Table 2.1: Supply Chain vs Value Chain

Supply Chain	Value Chain
Focuses on products	Consumer orientated and considers the interests of the consumer

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Competitive, no, or little cooperation as focus is on buying cheap and selling expensively	Cooperation between the value chain stakeholders in creating a competitive advantage
Business relationships are created as a win-loss	Business relationships are created as a win-win for all stakeholders
Benefits and profit are not evenly distributed across the supply chain	The welfare of all stakeholders is taken into consideration including appropriate profit margins and long-term business agreements
Lack of trust of trust between stakeholders	High level of trust and interdependence between stakeholder
Tactical and operational processes	Strategic interest in the performance and well- being of other stakeholders
Internally focused on the creation of physical good	The integration of goods and services to create value

Source: Adapted from Ayantu (2020:2)

2.4.2 Industry value chain and stakeholders defined

Zamora (2016:119) states that, "all business firms are part of a value-creating network. However, some firms have greater influence than others in shaping the network; others have minor roles to play and tend to be shaped by the network instead". Unlike firm value chain, where each stakeholder in the chain is an internal function, industry value chain has each stakeholder in the chain as an external but cooperative part of the value chain, characterised by interdependence in delivering products and services to consumers.

McGrath and Whitty (2017:740) on stakeholder definition concludes that "definition of the terms stake and stakeholder as an interest in relation to an activity". The researchers label for categories of stakeholders across 3 levels:

- An invested stakeholder is one who has some control of the activity.
- A contributing (primary) stakeholder is one whose participation is required to sustain the activity.

- An observer (secondary) stakeholder is one whose acceptance or compliance is required to sustain the activity.

- An end user (tertiary stakeholder) is one who uses the output of the activity.

2.4.3 Differences between Business-to-business and business-to-consumer models

In a value chain, companies create goods for consumers but may not necessarily sell the goods to the consumer. It is a value chain, and as in all chains, there are linkages. As per Zamora (2016:119), "all business firms are part of a value-creating network". In the network, there will be both businesses that offer goods and services to other businesses, and businesses that offer goods and services to consumers. These businesses are referred to as businesses that operate in business-to-business (B2B) and business-to-consumer (B2C) markets, respectively.

According to Kęstutis and Lina (2019:76), "B2B applies to companies marketing their goods or services exclusively to other businesses (a manufacturer deals with a wholesaler, or a wholesaler with a retailer) and not to consumers, while B2C applies to businesses marketing their goods or services to consumers".

Kęstutis and Lina (2019:77) distinguish the two models' characteristics using 9 criteria that look at:

- The businesses target
- The size of the market
- The volume of sales
- Degree of the purchaser's decision making
- The level of risk
- The purchasing processes
- Payment urgency
- Nature of transaction
- Customer decision mind-set
- The demand driver
- Usage of mass media

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Table 2.2: Differences of Business-to-business vs business-to-consumer models

Criteria	Business-to-business	Business-to-consumer
Target	Businesses	Consumers/end users
Market size	Smaller	Larger
Sales volume	High	Low
Decision making	By committee	Individually
Level of risk	High	Low
Purchasing process	Long and rigid	Short and flexible
Payment	Longer payment periods and credit extension	Instant or for shorter terms
Transaction nature	Requires complex systems	Cash or by debit/credit card
Customer mind-set	Rational and calculated	Emotional and impulsive
Demand	Based on a need	Based on a wish
Mass Media	Avoidable	Essential

Source: Adapted from Kęstutis and Lina (2019:77)

2.4.4 Stakeholders in the industry value chain of the hairdressing industry

Based on the nature and differences of the two models, the industry value chain, when applied to the South African hairdressing industry, differs slightly based on the role of the stakeholders, and how the value chain intends to create services and provide products to consumers. In expanding on the identified stakeholders earlier and their roles in the industry, the stakeholders in the South African hairdressing industry are segmented as:

2.4.4.1 Manufacturers and suppliers

The Haircare report by Marketline (2016:11) for South Africa estimated that in 2015, the South African haircare industry was worth $506.3 million (an estimated R6.5 billion (Marketline, 2016:14)), where 132.6 million units (Marketline, 2016:9) were sold during the year. Given the industry's trajectory, Marketline deduced that "the performance of the market is forecast to decelerate, with an anticipated CAGR of 2.6% for the five-year period 2015 - 2020, which is expected to drive the market to a value of $574.9 million by the end of 2020".

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Table 2.3: Marketline Market Share

Company	Share (%)
Unilever Plc	23.2%
P&G Company	18.0%
L'Oréal Group	17.7%
Amka Products	5.2%
Other	35.9%
Total	**100.0%**

Source: Haircare in South Africa, Marketline (2016:12)

According to Marketline (2016:12) the key market manufacturers and suppliers were Unilever, P&G (Proctor & Gamble), and L'Oréal, which made up 58.9% of the South African haircare market. Most manufacturers and suppliers rely on importing and producing products for South Africa. For those importing, they are sourcing from foreign manufacturing plants across the globe.

2.4.4.2 Key accounts, distributors, and wholesalers

An important aspect of the South African hairdressing industry value chain is the key accounts, distributors, and wholesalers of hair care, colouring, and styling products and equipment. Within the industry:

Key accounts are categorised as hairdressing chains across the country where larger beauty salons form part of a small hairdressing network that falls under one entity. While some hairdressing chains may be made up of centralised beauty salon management and ownership under one entity, other hairdressing chains make use of a franchising model where individual, larger beauty salon owners work together and make use of their joint impact to guarantee bigger discounts and allowances from manufacturers and suppliers, making use of their mass purchasing power.

Distributors make use of servicing smaller beauty salons to create a widespread distribution network. Distributors target smaller beauty salons and take advantage of the inefficiencies of manufacturers and suppliers by creating a faster, more efficient service with a deeper distribution reach. Given that distributors have a dynamic customer base; distributors can source from multiple manufacturers and suppliers to

satisfy a more dynamic need. Distributors act as an extension of manufacturers and suppliers of various products and equipment that a beauty salon could require, using the joint benefit of their distribution and summed up buying power, to secure discounts and allowances from manufacturers and suppliers in exchange for wider brand awareness and market share using the distributors' holistic network.

Wholesalers act as the link in a value chain that, unlike distributors who rely on efficiency and network to provide goods and equipment, relies on accessibility from both a hairdresser and consumer point of view. Wholesaler's service individual hairdressers (those who operate in rent-a-chair beauty salons and who do house calls) as well as consumers directly. Wholesalers secure discounts and allowances from manufacturers and suppliers by acting as a clearance option as well as covering the final, individualistic level of distribution within the industry.

2.4.4.3 Beauty salon owners and hairdressers

Beauty salon owners and hairdressers form the most important link in the South African hairdressing industry. As described by the 2021 US Industry and Market Report: Beauty Salons Industry Report (2021:6), beauty salons are establishments primarily engaged in:

- cutting, trimming, shampooing, weaving, colouring, waving, or styling hair
- providing facials; and/or
- Applying makeup (except permanent makeup)

Beauty salon owners and hairdressers work together to create an environment that delivers on the above services and act as a place that allows the use and selling of products to consumers in the industry.

Hairdressers both diagnose and treat hair concerns, and creatively colour and style s client's hair, while salon owners own beauty salons and use a payroll to remunerate hairdressers. Some beauty salons use a rent-a-chair model where hairdressers are charged to make use of the facilities provided and established by the beauty salon owner. Depending on the size, beauty salon owners and hairdressers are serviced and buy products from manufacturers and suppliers or key accounts, distributors, and wholesalers, based on the offerings and services they wish to provide consumers with.

2.4.4.4 Consumers

Consumers of hair care, colouring, and styling products, as well as beauty salon services, are the core of the industry. Consumers are the end-users of the joint efforts of the value creating stakeholders and form the market that injects economic benefits back into the industry.

2.4.5 Industry value chain where:

Rajagopalan (2015) suggests a mining value chain model to help understand its importance and application to the mining industry, which when interpreted against the hairdressing industry according to the B2B and B2C models, several industry value chains are formed as below:

2.4.5.1 Key accounts are centralised.

Figure 2.4 is the industry value chain flow, where centralised key accounts made up of hairdressing salon chains.
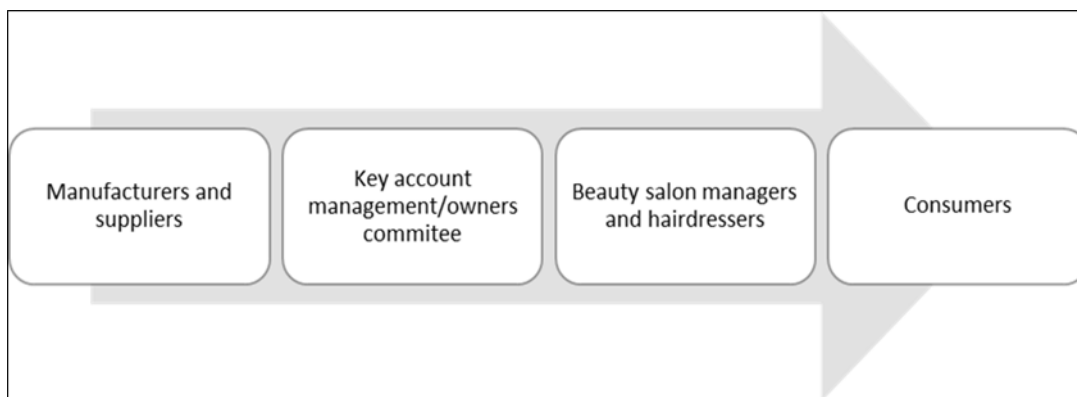
Figure 2.4: Industry value chain where with key accounts are centralised

As per figure 2.4 flow chart, when key accounts act as a centralised point, the accounts own several salons that are managed. The relationship with suppliers and manufacturers sits with the parent company, who also employ the salon managers and hairdressers that work in the salons the parent company own. The key accounts own a chain of beauty salons.

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2.4.5.2 Industry value chain where the key accounts are franchised and hairdressers rent-a-chair

Figure 2.5 is the industry value chain where the key accounts are franchised and hairdresser's rent-a-chair.
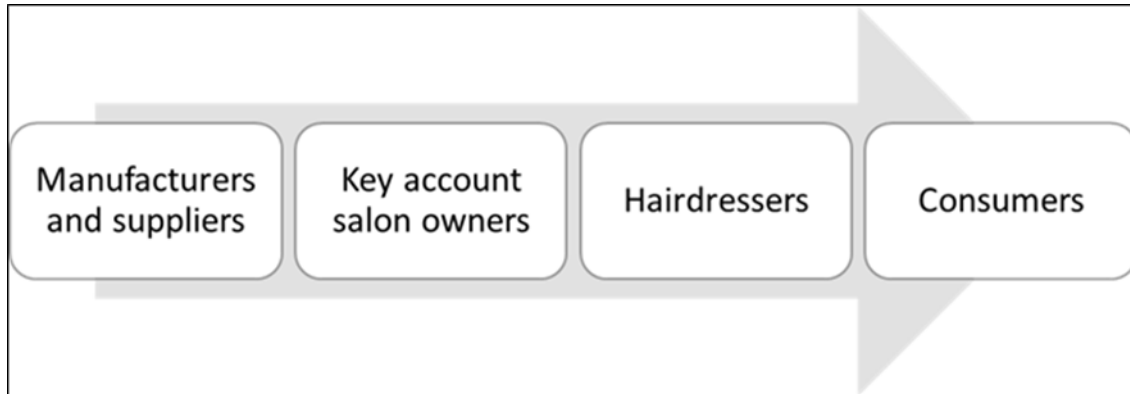
Figure 2.5: Industry value chain where the key accounts are franchised and hairdresser's rent-a-chair

As per figure 2.5 flow chart, when key accounts act as a centralised point, the accounts own several salons that are managed. The relationship with suppliers and manufacturers resides with the key account salon owners, but hairdressers are not employed by the parent company. They instead pay a rental fee to the key account salon owner to make use of the facilities of the key account owner.

2.4.5.3 Industry value chain where the key accounts are franchised, and hairdressers are employed

Figure 2.6 is the industry value chain where the key accounts are franchised, and hairdressers are employed by the beauty salons.

Figure 2.6: Industry value chain where the key accounts are franchised, and hairdressers are employed

As per figure 2.6 flow chart, when key accounts act as a centralised point, as one large salon, the relationship with suppliers and manufacturers resides with the Salon owner, who also acts as the salon manager(s) and employs hairdressers that work in the salons the parent company own. Hairdressers are usually incentivised with a basic salary and commission structure and receive a % of the revenue they generate individually.

2.4.5.4 Industry value chain where distributors service beauty salons

Figure 2.7 is the industry value chain where distributors service beauty salons.

Figure 2.7: Industry value chain where distributors service beauty salons

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As per figure 2.7, distributors have the relationship and source from various manufacturers and suppliers to supply smaller beauty salons. Hairdressers (whether employed or as rent-a-chair) are provided with products and equipment from the salon owners' service to consumers. Similar to the above models, the hairdressers who rent-a-chair are charged a rental, while those who are employed by the salon owner, are paid a basic salary with a commission structure.

2.4.5.5 Industry value chain where wholesalers service hairdressers

Figure 2.8 is the industry value chain where wholesalers service hairdressers.
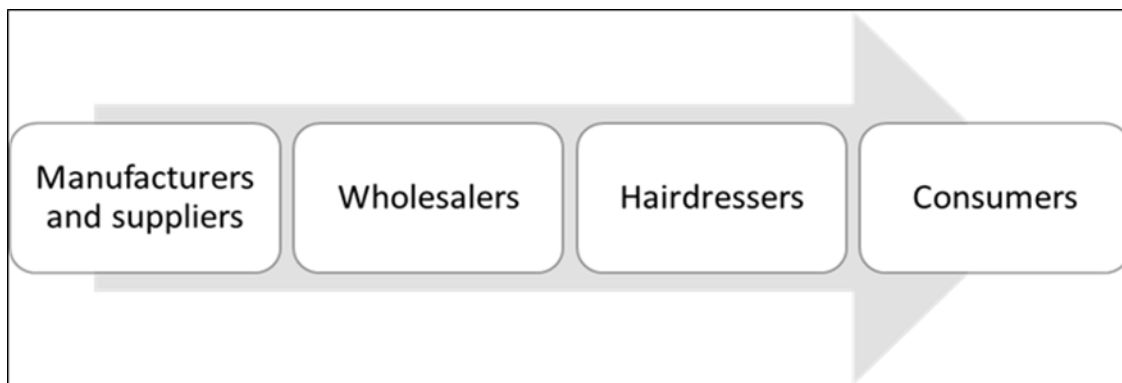
Figure 2.8: Industry value chain where wholesalers service hairdressers

As per the above flow chart, wholesalers who have a relationship with manufacturers and suppliers, source products and equipment from them, then sell to hairdressers directly who rent-a-chair in salons and/or do house calls for consumers.

2.4.5.6 Industry value chain where consumers are looking to self-service

Figure 2.9 is the Industry value chain where consumers are looking to self-service.

Figure 2.9: Industry value chain where consumers are looking to self-service

As per figure 2.9 flow chart, wholesalers who have a relationship with manufacturers and suppliers, source products and equipment from them, then in turn sell it to consumers directly. In the rise of e-commerce, the main players were or are now acting as wholesalers.

2.5 Conclusion

In conclusion, the literature review achieves two key aspects: 1) Identify theories around digitisation based on the degree, transformation, and barriers that are applicable to the concept of digitalisation, and 2) How a value is created within the industry and its current model of working and understanding the roles played by the various stakeholder in the value chain relationship.

The knowledge expanded on in the literature review supports the next chapter in setting out the research methodology the researcher used in addressing the research questions as presented in chapter 1, which were to identify the factors that influence digitalisation, what the influence of digitalisation on the key stakeholders within the professional products and services value chain are, and providing recommendations for the professional hairdressing industry in relation to digitalisation of the professional hairdressing industry.

The next chapter presents the research methodology for this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter of the research on the digitalisation of the professional hairdressing industry of South Africa and the impact on value chain stakeholders, there are three major aspects of a research methodology being discussed. Firstly, the research methodology accompanied by a high-level analysis of the research objectives and the research methodology approach and design used. Secondly, the research methodology covers the sample population and sampling techniques, the research instrument, and the collection, analysis, interpretation of the data selected. Lastly, the research methodology is discussed, as well as the reliability, validity, and ethical considerations.

3.2 Research methodology

The research methodology is researched in alignment with Saunders, Lewis and Thornhill's (2012) Research Onion.

3.2.1 The research onion

Below are the Research Onion Saunders, Lewis and Thornhill (2012)

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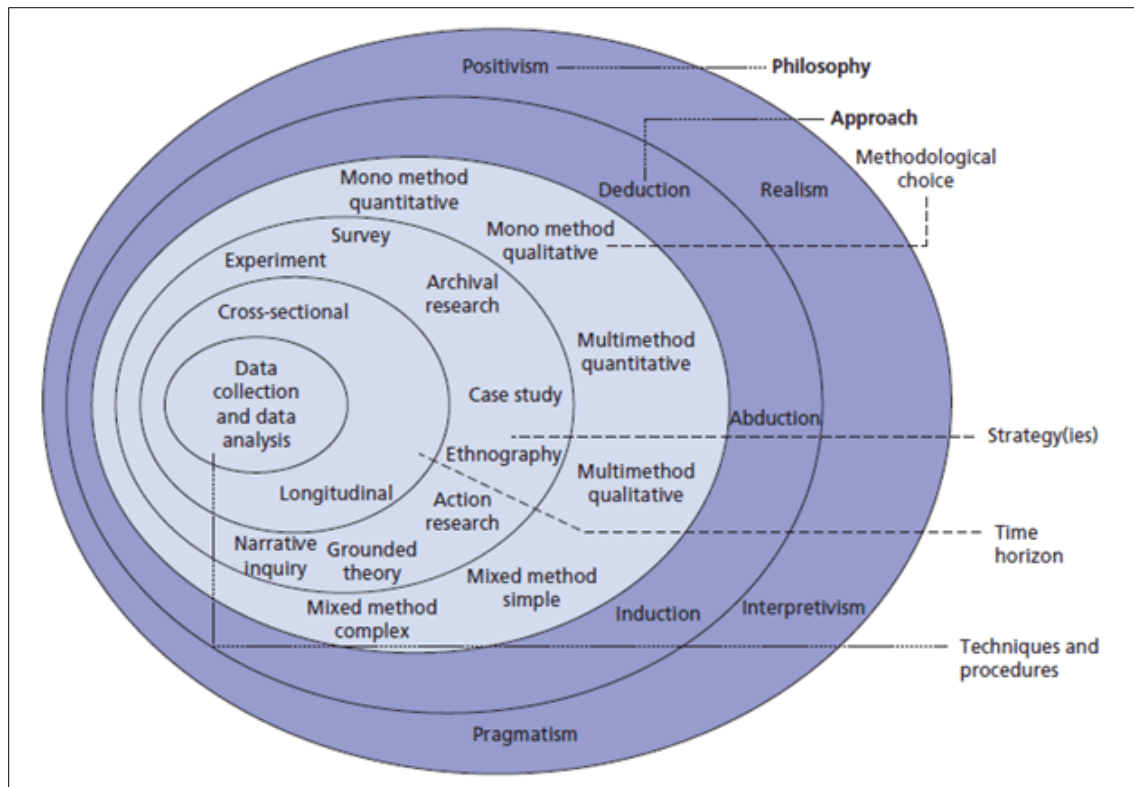
Figure 3.1: The research onion

Source: Saunders, Lewis and Thornhill (2012)

The research onion details the main philosophy and assists in choosing the approaches, methods and strategies as well as defining time horizons, which altogether give logic to the research design as well as the main techniques and procedures of data collection and analysis (Melnikovas, 2018:33). There are six main layers to the research onion as highlighted by Melnikovas (2018:33):

The research philosophy forms a basis of the research by describing the nature of reality, the sources of knowledge or facts, the values, beliefs, and ethics of the research. According to Saunders *et al.* (2012:118), there are four research philosophies, and they compare to one another as below:

Table 3.1: Research Philosophy

	Positivism	**Realism**	**Interpretivism**	**Pragmatism**
The researcher's view of the nature of reality	External, objective, and independent of social actors	Is objective and exists independently of human thoughts and beliefs or knowledge of their existence but is interpreted through social conditioning	Methods chosen must fit the subject matter, quantitative or qualitative	External, multiple, view chosen to best enable answering of research question
The researcher's view regarding what constitutes acceptable knowledge	Only observable phenomena can provide credible data or facts.	Observable phenomena provide credible data, facts. Focus on explaining within a context or contexts	Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meanings motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data
The researcher's view of the role of values in research	The researcher is independent of the data and maintains an objective stance	The researcher is biased by world views, cultural experiences, and upbringing. These will impact on the research	The researcher is part of what is being researched, cannot be separated and so will be subjective	The researcher adopting both objective and subjective points of view
Data collection techniques most often used	Highly structured, large samples, measurement, quantitative, but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in-depth investigations, qualitative	Mixed or multiple method designs, quantitative and qualitative

Source: *Interpreted from Saunders et al. (2012:118)*

The research philosophy used for the study of the Digitalisation of the Professional Hairdressing Industry of South Africa, and the impact on value chain stakeholders, best suited as an pragmatism philosophy given the criteria stated in table 3.1.

Approach to theory development – directed by the research philosophy on the previous level, the theory development usually includes:

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- Deduction – the research begins with an existing theory, then research the question or hypothesis and data collection to confirm or reject the hypothesis.

- Induction – the research starts with observation and data collection, then goes on to describe and analyse the observations and data to form a theory.

- Abduction – the observation of an empirical phenomenon is followed by the research, which produces the best guess or conclusion based on available evidence.

For the study, a deductive approach was used, as the research makes use of statistical techniques to draw conclusions.

Methodological choice – determines the use of quantitative and qualitative methods or various mixtures of both. As discussed, the study was conducted using the mixed method.

Strategy is used in collecting and analysing data. This includes:

- experiment
- survey
- archival research
- case study
- ethnography
- action research
- grounded theory
- Narrative inquiry

Data was collected using a survey to make statistical alignments and conclusions on the findings.

Time horizons – This layer defines the period for the research. There are two main ways:

- Cross-sectional or short-term study, which involves the collection of data at a specific point in time,

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- Longitudinal, which involves the collection of data repeatedly over a prolonged period to compare data.

The research has been performed and categorised as a cross-sectional or short-term research.

Techniques and procedures include data collection and analysis – the use of primary/secondary data, choosing sample groups, developing questionnaire content, and preparing interviews.

3.2.2 Research Choice

The data collected is collected based on the research's mixed method design where quantitative findings will be substantiated by qualitative component of the research to better understand and analyse the research findings.

3.2.2.1 Qualitative design

Golafshani (2003:600) defines qualitative research by summarising that the method "uses a naturalistic approach that seeks to understand phenomena in context-specific settings"., and further defines quantitative research as "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification".

While qualitative research follows a flexible design, Taylor, Bogdan and Devault (2015:43) recommend 8 items that require addressing when performing research using a qualitative design:

1. The procedure and method the researcher will be using
2. The plans of identifying and obtaining access to sources of information
3. The number of people or sources you intend to use to get information on the research
4. The data collection and recording methods and producers the researcher intends to use
5. The data analysis procedures
6. What the researcher intends to accomplish when performing the research
7. The timelines the research is meant to take place

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8. A background for the research being performed

3.2.2.2 Quantitative design

As earlier discussed, Wienclaw (2021:4) define quantitative research as, "quantitative research comprises research studies in which observations are measured and expressed in numerical form, such as in physical dimensions or on rating scales". To analyse the results of quantitative research, researchers numerically quantify the results obtained and make use of statistics to draw conclusions of the findings. Zangirolami-Raimundo *et al* (2018:356) observes four types of research designs:

- Series of cases
- Cross-sectional
- Case-control
- Cohort studies

3.2.2.3 Mixed Method Design

Mixed method is a combination of qualitative and quantitative methods of conducting research. According to Kabir (2016:204), "Mixed methods are useful in highlighting complex research problems". The mixed method may be used when corroborating findings as well as data triangulation and/or convergence. While mixed method enhances research validity and reality, it does present some challenges. The challenges of using a mixed method approach as cited by Kabir (2016:204), include:

- Delineating complementary qualitative and quantitative research questions
- Time-intensive data collection and analysis
- Decisions regarding which research methods to combine

For this study, the cross-sectional mixed method was used, which makes use of the main characteristics of cross-sectional design identified by Zangirolami-Raimundo *et al* (2018:356), which is an observation of variables or variations. This study used various respondents in the industry value chain and thus investigated varying aspects of the industry.

As earlier mentioned, this research sets out to evaluate the digitalisation of the professional hairdressing industry of South Africa and the impact on value chain stakeholders, by understanding the factors that influence digitalisation and identifying the influences digitalisation has on the industry value chain stakeholders. Using the information derived from the first two objectives, the research intended to recommend possible solutions in relation to the digitalisation of the professional hairdressing industry.

The research used statistical and qualitative feedback from the sampled population via questionnaires and a survey. Given that a cross-sectional method was used, the researcher made use of qualitative responses to support and give context to the quantitative results. In the distribution of the questionnaires and surveys, ethical considerations and signed approval were obtained from the identified industry stakeholders.

3.3 Population and sample framework

Kazerooni (2001:994) distinguishes different three layers of individuals when sampling, the total population, the study population, and the sample. The target population is population of entire clinical, in the case of this research, market interest. Although, the entire target population often cannot be studied and thus the study population is a subset of target population that can be studied and from there, samples are subsets of study populations used in clinical research because often not every member of study population can be measured.
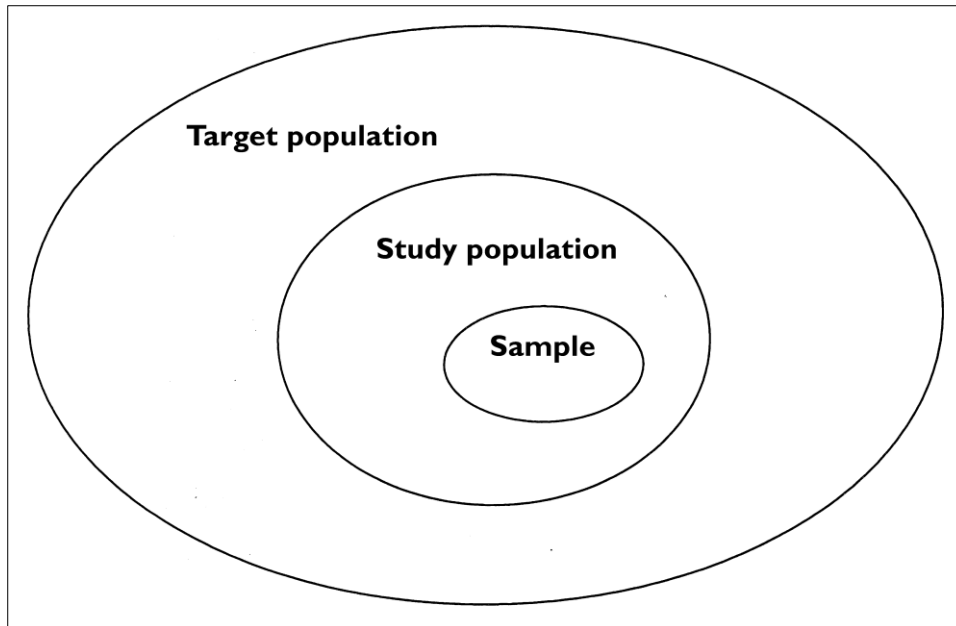
Figure 3.2: Population and sampling
Source: Kazerooni (2001:994)

3.3.1 Population

According to Services SETA (2016:31) there are approximately 185 415 active employees in the hairdressing and personal care services sector of which 85% operate as Afro salons, approximately 34 000 hairdressing salons, and 15%, approximately 3 000 hairdressing salons, cater for the Caucasian market.

The population that this study addressed ate the stakeholders within the professional hairdressing industry who are considered stakeholders, as defined and identified in the literature review, and are affected by the decisions and actions of other participants in the industry value chain. This population covers the various individuals, employees, and decision makers that drive the stakeholders in the value chain, including the manufacturers, suppliers, the key accounts, distributors, and wholesalers of hair care, colouring, styling products and equipment, as well as the regular beauty salons owners, managers, and hairdressers, the consumers of both hair care, colouring, and styling products, as well as beauty salon services.

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3.3.2 Sample

Given the population, there are two core sampling strategies identified by Lumpur (2016:20), with several sampling techniques that can be used when determining a sample group from a targeted population. The strategies are probability sampling and non-probability sampling.

During probability sampling, every element in the population is equally weighted in importance, and in being considered as a participant of the sample. According to Lumpur (2016:21), the techniques used probability sampling includes:

- Simple random sampling, where every element of the population has an equal probability of inclusion
- Systematic sampling, where every 2nd, 3rd, or 4th element of the population is selected
- Stratified random sampling, where the population is divided into subgroups such as age, gender, or occupation and chosen at random within the group
- Cluster sampling, where the population is divided into regions or companies and within those, the sample is selected
- Multi-stage sampling, where a step-by-step process is used to narrow down a broader sample

On the other hand, Lumpur (2016:21) describes the techniques used when doing non-probability sampling as:

- Quota sampling, where participants are selected based on specific characteristics
- Convenience sampling, where participants are selected because they are often readily and easily available
- Snowball sampling, where a few participants help encourage other participants to partake in the study
- Judgemental sampling, where the sample includes participants because the researcher is of the belief that they warrant inclusion

For the study, a judgement sampling technique was used, with the mentioned stakeholders in and around the industry that consisted of manufacturers and suppliers,

key accounts, distributors and wholesalers, regular beauty salon owners, hairdressers, and stylists as well as the final consumers. This selection, as a judgement technique, was selected due to their knowledge, skills, and experience in the industry.

The quantitative sample is made up of:

Table 3.2: Quantitative Sample

Manufacturers and Suppliers	10x	Manufacturers and Suppliers managers/representatives
Distributors and Wholesalers	10x	Wholesaler and Distribution owners/managers
Beauty Salon Owners/ Managers	30x	Beauty Salon Owners/Managers
Hairdressers	30x	Hairdressers
Consumers	20x	Consumers

The qualitative sample is made up of:

Table 3.3: <mark>Qualitative Sample</mark>

Manufacturers and Suppliers	1x	Manufacturers and Suppliers managers/representatives
Distributors and Wholesalers	2x	Wholesaler and Distribution owners/managers
Beauty Salon Owners/ Managers	1x	Beauty Salon Owners/Managers
Hairdressers	1x	Hairdressers
Consumers	1x	Consumers

The sample was obtained from the hairdressing industry network of business partners and associates, was then handpicked to ensure the report is widespread in its information/data collection, but also rigorous.

3.4 Data collection instruments

The researcher uses two core instruments to collect data that achieves the objectives of the research:

3.4.1 Questionnaires

Kabir (2016:244) describes a survey as "a good way of gathering a large amount of data" and providing a broad perspective. A survey allows researchers the ability to assess the thoughts, opinions, and feelings of the respondents. When using a survey, Kabir (2016:245) suggests looking for existing data or records around the research and if no existing data is available, suggests considering:

a. **Practicality** – Concerns the complexity, cost effectiveness, and accuracy obtained using the survey. For the study, a survey was simple and short while also being administered electronically to minimise costs.

b. **Resources** – Concerns the financial, technological, and human resources availability. For the study, an electronic survey was used that allowed respondents to answer online using any device. This also minimised the staff required to assist the researcher.

c. **Timing** – Concern's deadlines, data collection periods, and sufficient allocation of time. For this study, the data collection period was a month, with a strict deadline to adhere to for participants.

d. **Survey requirements** – Concerns the demographic, geographic and industry. For this study, the industry concerned was the hairdressing industry, and while the geographic considerations were not an issue given the survey was done electronically, participants needed to be 18 years or older.

e. **Accuracy** – Concerns the level of error to be tolerated. For this study, the answers needed to be accurate, based on the honesty of respondents.

f. **Frequency** – Concerns how often the survey will be repeated. For this study, the respondents were only given one chance to answer.

g. **Legislative powers** – Concerns the authority to collect the information. For this study, the survey was voluntary survey.

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Given the above, to collect data from the selected sample and to substantiate the mixed method research method selected, the data collection technique used for the qualitative aspect of the research was survey method and the qualitative aspect of the research data collection method was interviews.

3.4.2 Interviews

Semi-structured online (virtual) interviews allow for probing open-ended questions to be asked for independent opinions around the topic without feeling pressured by focus group peers (Adams, 2015:494). Adams's (2015:494) recommends semi-structured interviews when using the mixed method suggesting that semi-structured interviews "can be useful as an adjunct to supplement and add depth to other approaches."

As briefly discussed, the researcher in this study makes use of semi-structured interviews to collect qualitative data. The semi-structured interviews address the 3 main objectives, being understanding how digitalisation has influenced and transformed business (O1), identifying the influences digitalisation has on the key stakeholders within the professional products and services value chain (O2) as well as recommending solutions in relation to the digitalisation of the professional hairdressing industry (O3) by questioning the value chain stakeholders understanding of digitalisation and use of digital transacting, determining the perceived and practical impact and influence digitalisation has had on the hairdressing industry by stakeholders and enquiring the barriers withholding stakeholders from digitalisations well as the desire and willingness to want to digitally transform.

3.4.3 Pilot study

3 pilot questionnaires from the sample were used to test the study as well as 2 pilot interviews. These have been included in the data analysed for the research.

3.4.4 Field study

Online surveys were conducted through questionnaires on Survey Monkey while semi-structured interviews were completed virtually with participants answering the questions while discussing their answers telephonically with the researcher.

3.5 Data Analysis of Quantitative data

In the analysis of the data using a survey method, the researcher drafted quantitative comparisons, parallels, and conclusions based on the survey choices made by respondents through close-ended questions. The survey gathered data that was analysed based on the most common and least common responses to establish the key stakeholders' preferences and opinions around the impact and/or influence digitalisation had on them and their businesses within the professional products and services value chain.

Respondents' choices were used to understand the perception of digitalisation held by key industry stakeholders on the influence digitalisation had on the industry value chain stakeholders, in relation to the digitalisation of the professional hairdressing industry to paint a picture of how things were, how things should be and how things will be in future, based on the sampled population's statistical feedback, experiences, and practical expertise.

3.5.1 Descriptive statistics

Loeb *et al* (2017:1) is quoted as saying "The goal of quantitative description is not deep understanding of personal perspectives of a phenomenon, but a more general understanding of patterns across a population of interest." The authors site 4 ways in which descriptive analysis can help a reader, being:

- Giving a contextual, real-world view of the data
- Spotting the relevant information in the data
- Distinguishes any bias in the data and assessing the quality
- Helps identify the assumptions, limitations, and generalisations in the data being analysed

For this the research, descriptive analysis has been used to analyse data through tables and graphs, drawing conclusions from the numeric patterns and phenomena based on responses and making use of the Cronbach Alpha to determine the reliability of the data using internal consistency.

The normal distribution descriptive calculation that was conducted on the quantitative data collected with the research questionnaire was the mean and standard deviation.

The **mean** is referred to as the sum of all the values in a data set, divided by the number of values in that data set (Mentz & Botha 2012) while the **standard deviation** measure indicates how far a set of numbers lay apart from one another (Mentz & Botha 2012).

3.5.2 Validity and reliability

According to Heale and Twycross (2015:66) validity and reliability enhance the quality of studies, not only when considering the results, but also when considering the extent of research being done.

3.5.2.1 Validity

Surbhi (2017) notes that while internal validity is important, for an experimental design, internal and external validity should both be performed. Surbhi (2017) differentiates between using a basic comparison criterion that covers the meaning, the concerns, the purpose, what is identified, the description, and what it is used to.

Table 3.4: Internal vs External Validity

Basic Comparison	Internal Validity	External Validity
Meaning	Internal validity is the extent to which the experiment is free from errors and any difference in measurement is due to independent variable and nothing else	External validity is the extent to which the research results can be inferred to world at large.
Concerned with	Control	Naturalness
Purpose	It is a measure of accuracy of the experiment.	It checks whether the casual relationship discovered in the experiment can be generalised or not.
What is identified	How strong the research methods are?	Can the outcome of the research be applied to the real world?
The description	Degree to which the conclusion is warranted.	Degree to which the study is warranted to generalize the result to another context.
The use	Address or eliminate alternative explanation for the result.	Generalize the outcome.

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To achieve internal validity, this research was controlled, and the study measured, supported by strong research methods, which relied on the actual feedback from industry participants based on their experience and knowledge. To achieve external validity, the extent to which the research results can be inferred to the world at large was tested by checking if a causal relationship discovered in the study could be generalised or not, as well as the degree to which the study was warranted to generalise the result to another context within other service industries.

3.5.2.2 Reliability

In research, reliability refers to the consistency of a study or measuring device (McLeod, 2013). A reliable measurement is one where the measurement can produce comparable results if used again in similar circumstances.

There are two types of reliability identified by McLeod (2013). Internal and external reliability:

Internal reliability – Refers to the consistency when assessing results of a study within a test. The split half method is one such method used in psychometric tests and questionnaires. The test is split into two, having the same participant doing both halves of the test. If the two halves of the test provide comparable results, this would suggest that the test has internal reliability.

External reliability – Assesses the extent to which a measure varies from one use to another. The external reliability of self-report measures, such as psychometric tests and questionnaires, can be assessed using:

- The test-retest method, which involves testing the same participant twice over a period on the same test, and similar scores, would suggest that the test has external reliability.
- The inter-rater method, which involves comparing the ratings of two or more observers and checking for agreement in their measurements. Inter-rater reliability can also be used for interviews.

According to Taherdoost (2016:33) the most common measure of determining reliability using internal consistency is by adopting the Cronbach Alpha coefficient approach. The author is quoted as summarising that the Cronbach Alpha coefficient

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covers "the extent to which a measurement of a phenomenon provides stable and consist result". The data collection instrument for the research addressed internal and external reliability, by using the split-half method and the inter-rater method for the two aspects of reliability respectively and used internal consistencies by adopting the Cronbach Alpha coefficient approach to validate the two methods.

3.6 Data Analysis of Qualitative data

Clarke and Braun (2013:120) best describe the qualitative research method as a rich and exciting, citing how it captures the complexities and contradictions that characterises the data while finding the "real world" context of findings. As previously discussed, Thematic Analysis has been used by the researcher to analyse the qualitative aspect in order to substantiate and further explain the findings in the quantitative analysis. Qualitative analysis requires that the data analysed is trustworthy.

3.6.1 Thematic analysis

Clarke and Braun (2013:120) conclude that thematic analysis is "a method for identifying and analysing patterns in qualitative data." There are six parts to thematic analysis identified by Clarke and Braun (2013:121):

1. Understand the data by constantly reading it until the researcher is familiar with the data, making sure any initial analytical observations are noted.

2. An initial code must be developed based on the features of the collected data to be the base of the analysis.

3. Relevant, coherent themes must be derived to collate the codes and identify broader patterns within the themes.

4. Review the themes and ensure synergy between the codes and the dataset in its entirety to define the relationship between the themes

5. Define and name the different themes by linking the meanings to the theme and creating a thematic map.

6. Create a report on the findings that will answer the research questions and meet the research objectives.

3.6.2 Trustworthiness

Devault (2019) identifies 4 key components for data trustworthiness in qualitative research that will be applied to the research at hand to validify the research:

Credibility – sample group will be experienced and qualified persons who are both currently involved in the industry and are directly invested, be it economically, financially or personally, in the industry.

Transferability – given that judgement sampling, which is a nonprobability sampling is used, specific data relative to the research will be used.

Dependability – not only must the sample population be credible, the persons and data used in the research should be dependable. All data, information and feedback will be checked, referenced and integrally signed for respectively.

Confirmability – where there are prior studies or research, references will be made in order for the research to be internally consistent with what has been reported and is being reported in research.

Through use of Thematic Analysis as per Clark and Bruan (2013), the trustworthiness of qualitative research portion will be achieved, thus ensuring the qualitative components of the research are credible, transferable, dependable and confirmable

3.7 Ethical considerations

Fleming and Zegwaard (2018:209) highlight the importance of ethical considerations by writing that, "in addition to the importance of selecting an appropriate research methodology and methods is the importance of the ethical considerations around conducting the research".

This research has obtained informed consent and offered to protect the participants of the research from any harm, and the right to privacy to the respondents, participants, and the researcher. A clearance certificate from the UNISA SBL Ethics committee was

obtained prior to data collection to ensure the ethical considerations were abided by from the researcher and the research.

3.7.1 Informed consent

Fleming and Zegwaard (2018:210) describe informed consent as "the cornerstone of ethical research." In non-technical language, informed consent is a contract between researcher and the participants consisting of:

- Who the researcher(s) are?
- What the intent of the research is?
- What data will be collected from participants?
- How the data will be collected from participants?
- What level of commitment is required from participants?
- How this data will be used and reported?
- What are the potential risks of taking part in the research?

All interviews, questionnaires, and surveys were conducted and obtained from participants with consent, and the participants were fully aware of the nature of the research.

3.7.2 Protection from harm

Participants were not subjected to any physical or mental discomfort. The contents and recommendations of the research were provided only to the organisation, and all information in this regard will be kept confidential.

3.7.3 Right to privacy

All respondents and participants' names, personal details, responses, and contributions were protected and only known to the researcher.

3.8 Conclusion

This chapter was on the digitalisation of the professional hairdressing industry of South Africa and the impact on value chain stakeholders, where three main aspects of the research methodology were discussed, covering the research methodology accompanied by a high-level analysis of the research objectives, as well as the research methodology approach and design used. The research methodology also covered the sample population and sampling techniques, the research instrument and the collection, analysis, and interpretation of the data. The reliability, validity, and ethical considerations were discussed.

With the literature review and research methodology covered, the next chapter presents and explains the research findings and report on the research questions, answering the research objectives, and interpreting what the information from the findings entails.

The next chapter will discuss the research results.

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

In this chapter of the research about the digitalisation of the professional hairdressing industry of South Africa and the impact on value chain stakeholders, using the models discussed in the 3rd chapter's research methodology, data collected from the responses to the questionnaire is presented and discussed in a form of descriptive and inferential statistics, derived from the collected data. This is further supported by interviews conducted with industry participants who form pivotal parts of the hairdressing industry value chain.

4.2 Response rate

The questionnaire was completed via Survey Monkey where 100 responses from a distributed 118 were received between 13th September 2021 and 25th October 2021, with an average response rate of 85% to all the questions asked.

4.3 Presentation of quantitative results

In this section, the biographical and demographical data of respondents collected with the online questionnaire will be presented.

4.3.1 Demographical data of respondents

The industrial value chain participation rates of the respondents are presented in Figure 4.1 below.

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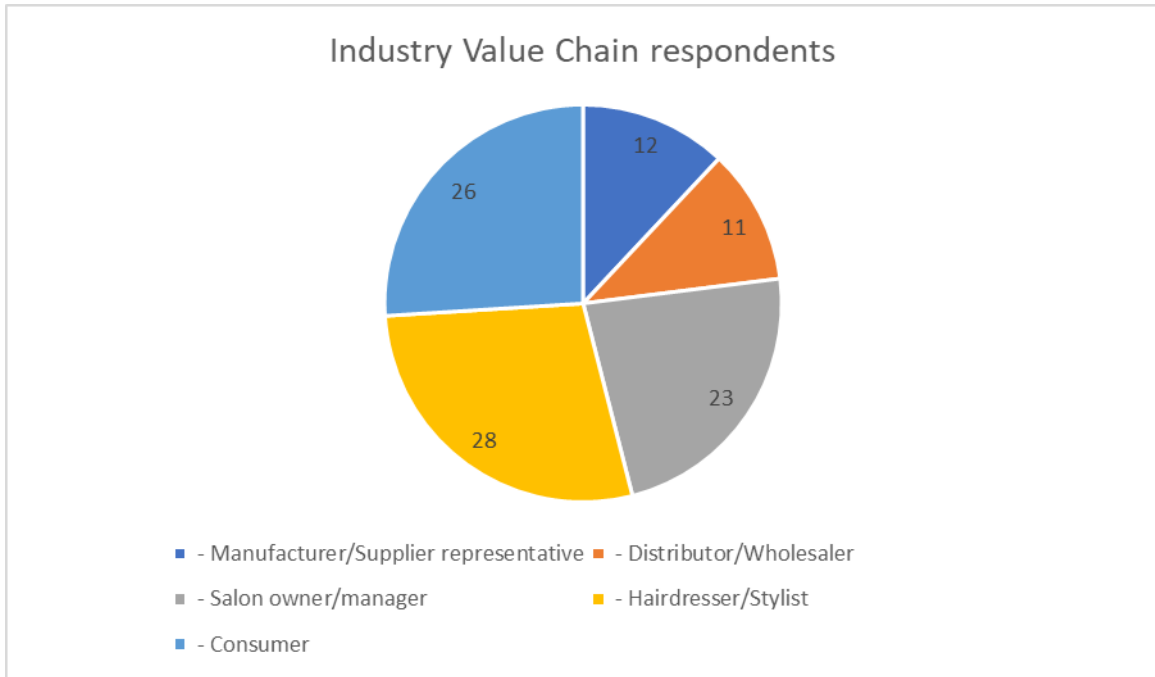
Figure 4.1: Industry value chain responses

For this study, 100 responses were received, where 12 were manufacturer/supplier representatives, 11 were distributors/wholesalers' representatives, 23 were salon owners/managers, 28 were hairdressers/stylists, and 26 were consumers.

4.4 Descriptive statistics

The respondents were presented with a 10-item questionnaire with the aim to determine how digitalisation has influenced and transformed business, and identify the influence digitalisation has on the key stakeholders within the professional products and services value chain. The frequency distribution of the three-point scale that measure perceptions of the respondents is presented next.

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4.4.1 The perceived impact of digitalisation

The respondents were asked: *Has digitalisation had an influence on you/your organisation's way of working?* The result is presented in Table 4.1 below.

Table 4.1: Perceived impact of digitalisation (*N* = 100)

Scale	Frequency	Percent	Valid Percent	Cumulative Percent
No	13	13.0	13.0	13.0
Somewhat	30	30.0	30.0	43.0
Yes	57	57.0	57.0	100.0
Total	**100**	**100.0**	**100.0**	

As presented in Table 4.1 above, 57% of the participants indicated that digitalisation had an influence on their organisation's way of working, while 30% indicated the way of working is somewhat influence by digitalisation. Only 13% of the respondents experienced no digitalisation influence in their organisation's way of working.

4.4.2 Digitalisation transformation

The respondents were asked: *Do you believe digitalisation has/can transform how the hairdressing industry currently operates?* The result is presented in Table 4.2 below.

Table 4.2: Perceived impact of digitalisation (*N* = 100)

Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Yes Negative	10	10.0	10.0	10.0
No	11	11.0	11.0	21.0
Yes Positive	79	79.0	79.0	100.0
Total	**100**	**100.0**	**100.0**	

The majority (79%) of the respondents reported that they believe digitalisation has positively transformed how the hairdressing industry currently operates, with 11% of the respondents indicated it had no impact, and 10% of the respondents feel that digitalisation had a negative transformation impact on the hairdressing industry operations.

4.4.3 Digitally transforming barriers

The respondents were asked: *What do you believe is the biggest barrier to digitally transforming the hairdressing industry?* The result is presented in Table 4.3 below.

Table 4.3: Perceived impact of digitalisation (*N* = 100)

Scale	Frequency	Percent	Valid Percent	Cumulative Percent
Connectivity and infrastructure	38	38.0	38.8	38.8
Cyber security	8	8.0	8.2	46.9
Finances	28	28.0	28.6	75.5
Human resources required	19	19.0	19.4	94.9
Government regulations	5	5.0	5.1	100.0
Total	98	98.0	100.0	
Missing	2	2.0		
Total	**100**	**100.0**		

The respondents indicated that digital connectivity and infrastructure (38%) that can include cyber security (8%) is a major barrier for the hairdressing industry, followed by financial constrains (28%). The availability of suitably human resources (19%), followed by government regulations (5%), are some other barriers that influence the hairdressing industry.

4.4.4 Descriptive statistics of questionnaire

The normal distribution descriptive calculation that was conducted on the quantitative data collected with the research questionnaire was the mean and standard deviation. The respondents were presented with a set of 6 statements and were requested to indicate their level of agreement with each of the statements on a 5-point Likert scale (See Appendix A: Online questionnaire). A means scores of <3 will indicate that the respondents are dissatisfied with the statement at hand, and a means score of 3 and higher will be an indication that the respondents are satisfied with the specific statement. At hand. The descriptive statistics of the questionnaire is presented in Table 4.4 below.

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Table 4.4: Descriptive statistics of questionnaire (*N* = 100)

	N	Missing	Mean	Std
Q2: How often, for your personal use, do you purchase digitally (online, mobile apps, etc.)?	100	0	2.93	1.50
Q3: Has digital enhanced your personal consumer experience?	99	1	3.58	1.33
Q4: How do you think digitalisation has impacted the hairdressing industry?	99	1	3.58	1.20
Q6: What best describes the influence of digitalisation on the hairdressing industry?	100	0	3.60	1.26
Q9: Would you encourage or discourage the digitalisation of the hairdressing industry?	100	0	3.79	1.01
Q10: Do you believe digitalisation brings value to the hairdressing industry?	100	0	3.88	0.99

As presented in Table 4.4, the respondents in general do not often purchase digitally (online) for personal use (mean = 2.93; *SD* = 1.50). If they do, is mostly once or twice a month. Most of the respondents agree that digital have enhanced their personal consumer experience (mean = 3.58; *SD* = 1.33) and many respondents think digitalisation have a positive impact on the hairdressing industry (mean = 3.58; *SD* = 1.20). The majority of the respondents are of the opinion that digitalisation have a convenience influence on the hairdressing industry (mean = 3.60; *SD* = 1.26). The respondents will in general strongly encourage the digitalisation of the hairdressing industry (mean = 3.79; *SD* = 1.01), and many respondents tend to strongly agree that digitalisation brings value to the hairdressing industry (mean = 3.88; *SD* = 0.99).

4.4.5 Factor Analysis

The primary purpose of a factor analysis is to take a large set of variables and reduce them to a smaller set of factors to form coherent subscales (Pallant 2016). An exploratory factor analysis was conducted, as the items used were adapted from other sources.

The suitability of the inter-correlation matrix of the questionnaire for factor analysis was confirmed with Kasier-Meyer-Olkin (KMO), which measured .723, above the recommended value of .6 (Hair *et al*., 1998). Bartlett's Test of Sphericity Chi-square value was statistically significant (χ^2 (15) = 158.857; p ≤ .000), therefore indicating the

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appropriateness of the data for factor analysis (see Table C.1 in Appendix C for item inter-correlation matrix).

Two factors were postulated according to Kaiser's (1970) criterion, which explained about 67% of the variance in the factor space (see Table C.2, Appendix C). Based on the fact only two factors was extracted from the 6 items (see Table C.3, Appendix C), and there were some cross-loading, it was decided to reject the results of the factor analysis and conduct an Iterative Reliability Analysis on all the items of the questionnaire, with the view to generate more data. The result of the reliability analysis is reported in a reliability section below.

4.4.6 Iterative reliability analysis of items

The iterative reliability analysis that was conducted on the items with the view to determine acceptable internal consistency reliability (Pallant 2016), is presented in Table 4.5 below.

Table 4.5: Iterative reliability analysis of questionnaire items

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q2: How often, for your personal use, do you purchase digitally (online, mobile apps, etc.)?	18.444	15.719	0.417	0.333	0.714
Q3: Has digital enhanced your personal consumer experience?	17.808	16.993	0.385	0.337	0.717
Q4: How do you think digitalisation has impacted the hairdressing industry?	17.808	17.381	0.410	0.406	0.707
Q6: What best describes the influence of digitalisation on the hairdressing industry?	17.758	16.267	0.519	0.456	0.675
Q9: Would you encourage or discourage the digitalisation of the hairdressing industry?	17.596	16.509	0.658	0.463	0.646
Q10: Do you believe digitalisation brings value to the hairdressing industry?	17.505	17.946	0.478	0.278	0.692

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	Scale Cronbach's Alpha	Mean	Variance	Std. Deviation	N of Items
Factor 1	0.775	14.186	11.911	3.4513	4
Factor 2	0.698	6.515	6.171	2.48	2
Scale	0.720	21.384	22.953	4.79	6

The result obtained from the iterative reliability analysis of the Scale (measured by six items), yielded a Cronbach Alpha of 0.720, indicating acceptable internal consistency reliability (Pallant 2016). This means the extracted factors in the scale is reliable.

4.4.7 Test for normality

Kolmogorov-Smirnova Normality test was conducted to determine if the data collected through the sample was drawn from a normally distributed population. The reason is that this is a requirement of some of the statistical tests, for example two-way ANOVA (Pallant 2016).

Table 4.6: The sub-scales tests of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	*df*	*Sig.*	*Statistic*	*df*	*Sig.*
Sub-scale1	0.202	99	0.000	0.887	99	0.000
Sub-scale 2	0.252	99	0.000	0.861	99	0.000

a. Lilliefors Significance Correction

As reflected in Table 4.6 above, the significant result for the Kolmogorov-Smirnov test (*Sig.* = 0.00) for all the sub-scales suggest a violation of the assumption of normality. Based on this finding, non-Parametric statistical calculations were used for inferential statistics for the study (Pallant 2016).

4.5 Quantitative inferential statistics for the study

Inferential statistical calculations were conducted on the data collected for the study, with the intention to make inferences about the company's population, based on the sample of data taken from the population (Leedy & Ormrod 2015). The results from inferential statistical analysis are presented next.

4.5.1 Inter-correlations between sub-scales

The Spearmen correlations were conducted to measure the strength of association and direction between the four variables of this study. According to Pallant (2016), the strength of association or correlations ranging between values of $r = .1$ and $.3$ pose a small effect, $r > .3$ to $.5$ pose a moderate effect, and those greater than $r < .5$ pose a large effect size.

Table 4.7: Inter-correlations matrix (Spearman Correlations) of the six items

		Q2	Q3	Q4	Q6	Q9	Q10
Q2: How often, for your personal use, do you purchase digitally (online, mobile, apps, etc.)?	Correlation Coefficient	1.000					
	Sig. (2-tailed)						
	N	100					
Q3: Has digital enhanced your consumer experience?	Correlation Coefficient	**0.574 ****	1.000				
	Sig. (2-tailed)	0.000					
	N	99	99				
Q4: How do you think digitalisation has impacted the hairdressing industry?	Correlation Coefficient	0.074	0.064	1.000			
	Sig. (2-tailed)	0.469	0.529				
	N	99	99	99			
Q6: What best describes the influence of digitalisation on the hairdressing industry?	Correlation Coefficient	**0.223 ***	0.172	**0.553****	1.000		
	Sig. (2-tailed)	0.026	0.089	0.000			
	N	100	99	99	100		
Q9: Would you encourage or discourage the digitalisation of the hairdressing industry?	Correlation Coefficient	**0.324 ****	**0.326 ****	**0.506 ****	**0.541 ****	1.000	
	Sig. (2-tailed)	0.001	0.001	0.000	0.000		
	N	100	99	99	100	100	
Q10: Do you believe digitalisation brings value to the hairdressing industry?	Correlation Coefficient	**0.204 ***	0.141	**0.485 ****	**0.360 ****	**0.440 ****	1.000
	Sig. (2-tailed)	0.042	0.165	0.000	0.000	0.000	
	N	100	99	99	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

There is a strong significant positive relationship between Q2 with Q3 (r (n = 99; $p <$ 0.01) = 0.574) as perceived by the respondents.

There is a significant positive relationship between Q6 with Q2 (r (n = 100; $p < 0.05$) = 0.223) and between Q6 with Q4 (r (n = 99; $p < 0.01$) = 0.553) as perceived by the respondents.

There is a significant positive relationship between Q9 with Q2 (r (n = 100; $p < 0.01$) = 0.324) and Q3 (r (n = 99; $p < 0.01$) = 0.326). A strong significant positive relationship exists between Q9 with Q4 (r (n = 99; $p < 0.01$) = 0.506) and Q6 (r (n = 100; $p < 0.01$) = 0.541) as perceived by the respondents.

There is a significant positive relationship between Q10 with Q2 (r ($n = 100$; $p < 0.05$) $= 0.204$) and Q4 (r ($n = 99$; $p < 0.01$) $= 0.485$). A significant positive relationship exists between Q10 with Q6 (r ($n = 100$; $p < 0.01$) $= 0.360$) and Q9 (r ($n = 100$; $p < 0.01$) $= 0.440$) as perceived by the respondents.

4.5.2 Variable mean score comparisons

To determine if there are significant differences in the median scores of the six continuous independent variables (Q2) digitally purchases; (Q3) personal consumer experience enhancement; (Q4) digitalisation impact on hairdressing industry digitalisation; (Q6) influence level on hairdressing industry; (Q9) digitalisation support; and (Q10) digitalisation value to hairdressing industry across the categorical independent variable industry value chain, a non-parametric Kruskal–Wallis Test was conducted.

4.5.2.1 Industry value chain groupings

The respondents were divided into five Industry value chain groupings: (1) Manufacturer/Supplier representative; (2) Distributor/Wholesaler; (3) Salon owner/manager; (4) Hairdresser/Stylist, and (5) Consumer (refer to section 4.3.1).

Digitally purchases: The non-parametric Kruskal-Wallis Test shows there is no statistically significant difference in Digitally purchases levels of respondents across five different Industry value chain groups, X^2 (4, $n = 100$) $= 4.161$, $p = .39$.

Personal consumer experience enhancement: The non-parametric Kruskal-Wallis Test shows there is no statistically significant difference in Personal consumer experience enhancement levels of respondents across five different Industry value chain groups, X^2 (4, $n = 100$) $= 7.417$, $p = .12$.

Digitalisation impact on hairdressing industry: The non-parametric Kruskal-Wallis Test shows there is no statistically significant difference in Digitalisation impact on hairdressing industry levels of respondents across five different Industry value chain groups, X^2 (4, $n = 100$) $= 5.210$, $p = .27$.

Digitalisation influence level on hairdressing industry: The non-parametric Kruskal-Wallis Test shows there is a <u>statistically significant difference in</u> Digitalisation influence level on hairdressing industry levels of respondents across five different Industry value chain groups, X^2 (4, n = 100) = 10.598, p = .031.

Industry value chain group Salon owner/manager (n = 23; *median* = 3; *mean rank* = 62.11) submitted the highest scores followed by the industry value chain Consumer group (n = 26; *median* = 3; *mean rank* = 53.71). Next is the industry value chain Hairdresser/Stylist group (n = 28; *median* = 4; *mean rank* = 49.77) followed by the industry value chain Distributor/Wholesaler group (n = 11; *median* = 4; *mean rank* = 36.86). The Industry value chain group Manufacturer/Supplier representative (n = 12; *median* = 4; *mean rank* = 35.50) submit the lowest scores.

To determine which of the Industry value chain groups differ from each other, Kruskal-Wallis Test post hoc analysis was conducted on the variable digitalisation influence level on hairdressing industry that yielded significant results as presented in Figure 4.2.
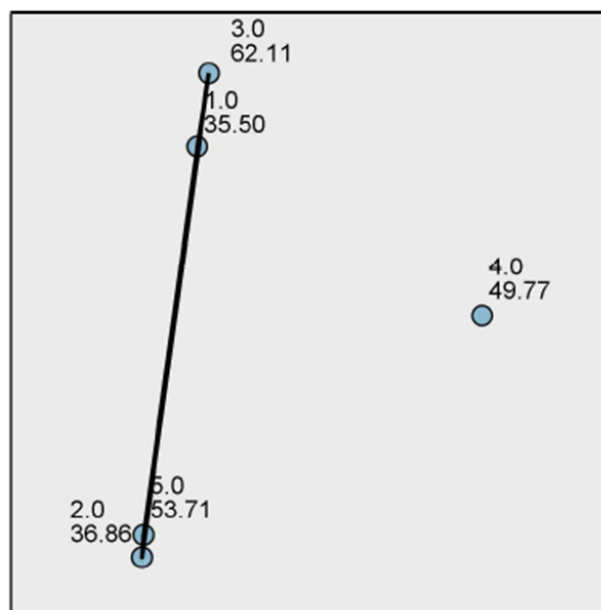
Figure 4.2: Digitalisation influence level on hairdressing industry mean rank scores comparison between categories of industry value chain (n = 100)

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The Kruskal-Wallis Test post hoc analysis using a Dunn's procedure with Bonferroni correction for multiple comparisons were unfortunately not able to reveal the statistically significant difference (see the yellow line between the nodes) within the categories of industry value chain with digitalisation influence level on hairdressing industry.

Digitalisation support: The non-parametric Kruskal-Wallis Test shows there is no statistically significant difference in Digitalisation support levels of respondents across five different Industry value chain groups, X^2 (4, $n = 100$) = 0.645, $p = .96$.

Digitalisation value to hairdressing industry: The non-parametric Kruskal-Wallis Test shows there is no statistically significant difference in Digitalisation value to hairdressing industry levels of respondents across five different Industry value chain groups, X^2 (4, $n = 100$) = 2.064, $p = .72$.

4.6 Presentation of qualitative findings

In this section, the qualitative findings of the thematic analysis conducted on the qualitative data collected with the semi-structured interviews are presented.

4.6.1 Demographical data of participants

The participants' Industry value chain group is presented in Table 4.8 below.

Table 4.8: Participants' Industry value chain group

Participant	Industry value chain group	Responsibility
1	E-Commerce Wholesaler	I work a Digital Manager for a wholesaler for a number of products. The hair care, colouring and styling are one of the many categories we deal with as we wholesale many industries
2	Hairdresser	I am a hairdresser by profession who also specialises in educating other hairdressers alongside manufacturers on new techniques, formulations and innovations.
3	Salon Owner	I'm an owner of a small home salon in Durban that services clients looking to style, colour and maintain their hair.
4	General Manager Manufacturer	My role is the General Manager of the biggest manufacturer and supplier of professional hare care, colouring and styling in the South African professional market.
5	Distributor Owner	I am the Co-Owner and Managing Director of a distribution company in the Western Cape that deals in purchasing and distributing hair care, colouring and styling products for the region.
6	Consumer	I use hair products for personal and through hair salons pretty much monthly

As reflected in Table 4.8 above, the study includes a representative of all sectors of the of the industry value chain that will ensure a balanced contribution.

4.6.2 Thematic analysis of qualitative data

The research aims to educate and give insight to the South African hairdressing industry's value chain stakeholders on the concept of digitalisation. The data collected with the semi-structured interviews was subjected to a six-step thematic analysis as described by Braun and Clarke (2006), with the view to achieve the following research objectives as defined for this study in Chapter 1.

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- **Research objective 1:** Understand the factors of how digitalisation has influenced and transformed businesses.

- **Research objective 2:** Identify the influences digitalisation has on the key stakeholders within the professional products and services value chain.

- **Research objective 3:** Provide recommendations to the value chain stakeholders in relation to the digitalisation of the professional hairdressing industry.

A six-step thematic analysis method was used to determine patterns or relationships within the data collected with the semi-structured interviews and that was coded and grouped into themes. A thematic mind map was created, as reflected in Figure 4.3 below, with the view to give the readers a better understanding of the findings of the findings.
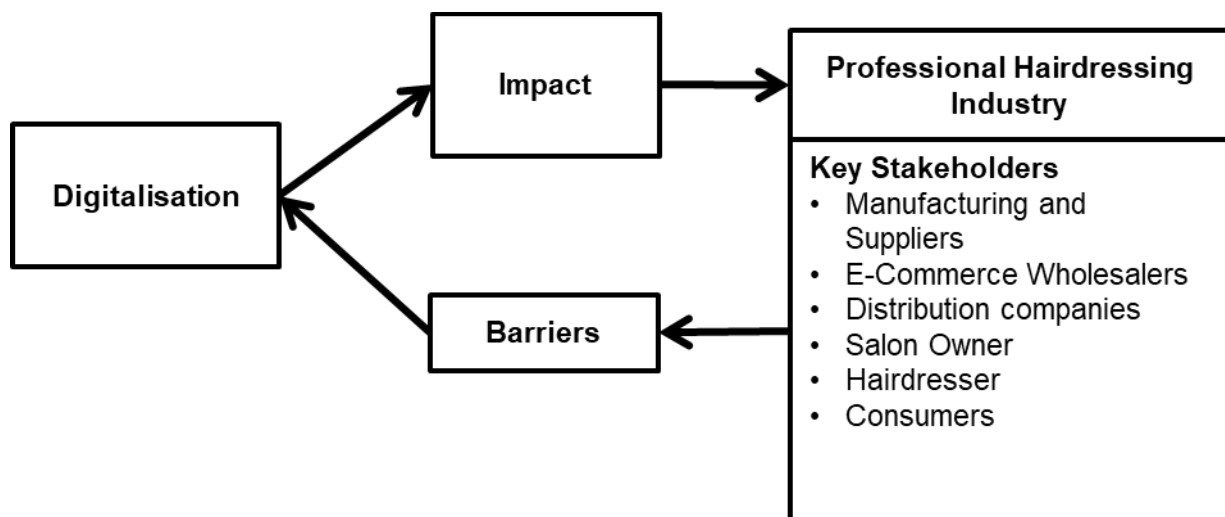
Figure 4.3: Thematic Analysis of the transformation of Digitalisation on the Professional Hairdressing Industry of South Africa

4.6.3 Main Theme 1: The transformation of digitalisation on the professional hairdressing industry

The first research objective of this study was to develop an understanding of how digitalisation influenced and transformed businesses in the hairdressing Industry. To achieve this objective, participants selected from the hairdressing Industry were

presented with a set of questions related to digitalisation. Table 4.9 below is a representation of development of the emerging main theme 1: The transformation of digitalisation on the professional hairdressing industry.

Table 4.9: A representation of the development of the emerging main theme 1: The transformation of digitalisation on the professional hairdressing industry

Sub-themes	Emerging Theme
1.1: Covid-19 Pandemic	1: The transformation of digitalisation on the professional hairdressing industry
1.2: Digitalisation	
1.3: Online shopping	
1.4: Online training	

4.6.3.1 Sub-theme 1.1: Covid-19 Pandemic

On one side, the Covid-19 pandemic had a devastating impact on the business operations hairdressing industry, but on the other side, it resulted in the acceleration of digitalisation as supported by the statement "*The pandemic has accelerated the digitalisation of many sectors and industries business processes*" (Focus group 94). In an effort to control the spread of the virus, government forced a complete lockdown that resulted in salons not being able to operate for a period of about 3 months. With no income for rent, salaries, and limited or no support from government, the hair industry and its customers were forced to explore and develop alternative ways to weather the lockdowns. This is supported by the following statement: "*With Covid-19 being the new reality, and the confinement it came with, our consumers have been steered to using the online space as their first product exploration touch point, and as such, online platforms have now become the new product shelf*" (Participant 4). This finding is supported in the literature of Singh (2021), who acknowledging how COVID-19 expanded digitalisation and accelerated the Fourth Industrial Revolution.

4.6.3.2 Sub-theme 1.2: Digitalisation

Zakaria (2019:60) described digital transformation as "a tangible step-by-step transformation for an organisation via the introduction of digital technologies." The

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pandemic has accelerated the digitalisation of many sectors and industry business processes. "*The influence digital has had can be seen in the movement from a traditional approach to tailoring business process for digital*" (Participant 1).

According to Strønen (2020:232), digitalisation is four level processes with the levels: *Pure digital* where the consumption of the product or service is digital example photos; *Digital distribution* is the level in which products and services are distributed in digital format, but consumption of the product or service may not be in digital format example cinema tickets; *Digital information*, information regarding the availability and the characteristics of the product or services are digital example traditional online shopping: and *Additional digital services* for example printing of receipts. The influence of digitalisation on the hair industry is highlighted in the following statement: "*Digitalisation given us a platform to connect and make contacts with people throughout the world*" (Participant 2).

4.6.3.3 Sub-theme 1.3: Online shopping

During the hard lockdown, consumers had ample time on hand to explore product offerings on the internet that changed online shopping forever: "*Shopping online has enhanced my experience in gaining access to new items as they drop without the hassle of making sure I am in store at a certain time to get the items before they sell out*" (Participant 1). It creates convenience for the customers as it becomes easier to find hairdressers online that will net their needs: "*It is convenient to know before going in-store how much the costs would be*" (Focus group 4).

For the e-commercial companies it was great news that gave them the opportunity for business growth: "*Digitalisation has unleashed the power to influence an audience we may never have had access to before, by giving us the opportunity to engage consumers and influence their buying decisions whilst still ensuring that we support the stylist and strengthen the e-retailer*" (Participant 1). It opened a new world of opportunities: "*We can promote our business everywhere*" (Participant 1). Digital has allowed hairdressers and brands to introduce customers to more of their offerings through content, community engagement, and partnerships with influencers, celebrities, and publishers: "*We have had major growth by simply becoming "more*

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convenient" it's also a great way to display my work and adapt and learn" (Participant 1). In the South African context, credit cards and debit cards are the preferred methods of payment, but access to credit is heavily regulated, with lower interest rates only accessible to the middle and upper class. According to Maphanzela (2020:62), "a large portion of South Africa's population cannot use online shopping because South Africa has a high number of individuals who are unbanked or under banked due to South Africa's' high banking fees and the inaccessibility of banking institutions in remote and rural areas".

4.6.3.4 Sub-theme 1.4: Online training

Hairdressing is one of the fastest growing industries that were accelerated by the Covid-19 pandemic. The customer in the post Covid-19 pandemic is more knowledgeable and demands a higher standard of service: "*There is a savvy consumer who knows more than before which requires the brands/hairdressers to service them differently now*" (Participant 1). To meet these new demands, hairdressers need to be trained, and attend refresher courses on the latest trends and products. We can have staff all take part of online trainings, keep them in the salon, and not out for a day" (Participant 2).

4.6.4 Main Theme 2: Digitalisation transformation of key stakeholders

The first research objective of this study was to develop an understanding of how digitalisation has influenced and transformed businesses in the hairdressing Industry. McGrath and Whitty (2017:740) conclude that the terms stake and stakeholder is an interest in relation to an activity, and categorise stakeholders across 4 levels: *Invested stakeholder* is one who has some control of the activity; *contributing (primary) stakeholder* is one whose participation is required to sustain the activity; *observer (secondary) stakeholder* is one whose acceptance or compliance is required to sustain the activity; and *end user (tertiary) stakeholder* who uses the output of the activity. To achieve these objective participants selected from the hairdressing Industry were presented with a set of questions related to digitalisation. Table 4.10 below is a representation of development of the emerging main theme 2: Digitalisation transformation of key stakeholders.

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Table 4.10: A representation of the development of the emerging main theme 2: Digitalisation transformation of key stakeholders

Sub-themes	Emerging Theme
2.1: Manufacturers/Suppliers	
2.2: E-Commerce Wholesalers	
2.3: Distributor Company	2: Digitalisation transformation of key stakeholders
2.4: Beauty Salon Owners	
2.5: Hairdressers	
2.6: Consumers	

4.6.4.1 Sub-theme 2.1: Manufacturers/Suppliers

In the South African hair care market, the key market manufacturers and suppliers are Unilever, Proctor & Gamble, and L'Oréal, which hold 58.9% of the hair care market-share. The majority of manufacturers and suppliers rely on importing and producing products for South Africa, which they are sourcing from foreign manufacturing plants across the globe (Marketline, 2016:12). The influence of digitalisation on the way of working by manufacturers and suppliers sector resulted in the following response: "*The exponential rise in the activity on digital platforms as compelled us to pivot to ways of working that support and partner with the pro on their own pro-channels, recruit new consumers by providing edu-taining content, as well as elevating the e-retailer by building their credibility through educational pro-content provided by the business*" (Participant 4). The manufacturers and suppliers sector expand their marketing influence with the following strategy: "*We utilise a professional beauty model that leverages data to recruit, excite, educate and retain consumers whilst enabling stylists anywhere to benefit from our brands*" (Participant 4).

4.6.4.2 Sub-theme 2.2: E-Commerce Wholesalers

An e-commerce wholesaler is business who is buying large quantities of goods of many categories and selling them in smaller amounts, online for example, one of the many categories that e-commerce wholesaler can deal with are hair care, colouring and styling products. The impact of the Covid-19 pandemic on the hair industry shifted

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the handling and sampling of products from a hands-on approached to a more digital approach, to comply with legislation requirements that prohibited touching to prevent the spread of the virus. Customers can now access and test products digitally online: "*INECTO has created an app where you can see what you would look like with their different hair dyes. Thus making the experience more enjoyable for the consumer, but also giving the hair dresser the confidence that the consumer will like the end results as they have seem what they look like in that colour*" (Focus group 94).

4.6.4.3 Sub-theme 2.3: Distributor Company

Products were bought from manufacturers and suppliers by the distribution company that resell them for a profit. Distributors act as an extension of manufacturers and suppliers of various products and equipment that a beauty salon could require and take advantage of the inefficiencies of manufacturers and suppliers by creating a faster, more efficient service with a deeper distribution reach. The distribution network is described as follows: "*Orders received primarily occur through mobile digital platforms such as WhatsApp. Our reporting systems and internal systems are all digitised in the distribution*" (Participant 5).

4.6.4.4 Sub-theme 2.4: Beauty Salon Owners

Beauty salon owners and hairdressers work together to create an environment that delivers on services for example cutting, trimming, shampooing, weaving, colouring, or styling hair, providing facials; and/or applying makeup. Some salon owners own beauty salons and use a payroll to remunerate hairdressers, while others use a rent-a-chair model, where hairdressers are charged to make use of the facilities provided and established by the beauty salon owner (SETA, 2017). "*The salon and the hairstylist are at the heart of the hair industry business*" (Participant 4). The corona pandemic changed the way salons do business. The restrictions enforce a new way of working for the salons. Occupation within the salon was limited, double sanitising of equipment was required, and beauty technicians needs to wear a face mask, as well as shields for protection. A salon owner describes the digitalisation experience as follows: "*I feel it's forced us into a new Era, to have abundant knowledge at your fingertips, to be aware of latest trends and to be able to push our advertisements to all platforms is such a benefit. We have had major growth by simply becoming more*

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convenient" (Participant 3). Very important potential markets, who do not have currently access to technology, are those people in the back street and rural areas building their brick and mortar businesses: "*Digitalisation creates unique opportunities for small brick and mortar businesses to start and develop and for suppliers to engage in a broader way*" (Participant 5).

4.6.4.5 Sub-theme 2.5: Hairdressers

A hairdresser is a person with special skillset who works in a hair salon that cuts peoples hair and put it into a style. From simple wash and dry routines to hair colouring and masking, the entire beauty salon service is one that requires an important level of person-to-person contact. "*A balance of digital and personal would be the winner. I think we have been through so much and need as much face to face and love*" (Participant 2). Because of the hard lockdown for almost 4 months, hairdressers were unable to earn a living, thereby affecting them, their families, and the industry's contribution to the economy. Some hairdressers had been arrested by the police for illegally practising their trade during the lockdown. These findings are supported by the findings of Brown (2020) who conducted interviews with hairdresser's investigation the impact of the lockdown. After the lockdown most customers do not come back as consumers adapted and either moved to do-it-yourself and self-care beauty products (which would be ordered online), while others were reluctant to come due to the corona thread (Guthrie's *et al.,* 2021:3). "*The consumers broaden their interests and are open to exploration of different hairstyles/colours/products – this can be seen with this introduction of AI tools*" (Participant 2).

4.6.4.6 Sub-theme 2.6: Consumers

The term consumer is link to the 4th category of stakeholder classification by McGrath and Whitty (2017:740) that defined end user (tertiary) stakeholder who uses the output of the activity. The digitalisation of the hair industry was welcomed by the consumers as it opens a new wold for them. The government induce a hard lockdown to battle the corona virus pandemic force the shutting down of salons for a period of up to four months. the Disaster Management Act, 2002 (Act no. 57 of 2002), measures to

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prevent and combat the spread of COVID-19, beauty salons were deemed a substantial risk by the South African Minister of Cooperative Governance and Traditional Affairs, Dr Nkosazana Dlamini-Zuma.

These forced consumers to do their own research online, looking for methods and products to satisfy their hair care related needs. During this time, some consumers began settling for cheaper, nonprofessional products to continue their hair care and colouring routines at home, while others continued to do house calls with their hairdressers. During this period many consumers were force to work from home that required assess to the internet. Many consumers discovered the power of digitalisation and they realised that they were now able to explore online in their own time hair related solutions without feeling intimidated. When the salons open consumers was enabled to require a new level of service delivery: "*There is now a savvy consumer on the block who knows more than before which requires the brands/hairdressers to service them differently now*" (Participant 1). It bring education to the consumers and has made it more convenient for consumers to get access to hair care products and services which is a big factor in the lives of many consumers: "*I feel like when it comes to education, I am happy to watch things however when it comes to new products techniques I must test, touch and feel the product for myself*" (Participant 2).

4.6.5 Main Theme 3: Barriers to digitally transforming the hairdressing industry

According to Maphanzela (2020:37), South African e-retail industry is demonstrating low levels of penetration due to the significant accessibility challenges for business. Table 4.11 below is a representation of development of the emerging main theme 3: Barriers to digitally transforming the hairdressing industry.

Table 4.11: A representation of the development of the emerging main theme 3: Barriers to digitally transforming the hairdressing industry

Sub-themes	Emerging Theme
1.1: Connectivity	3: Barriers to digitally transforming the hairdressing industry
1.2: Adoption rate	
1.3: Government regulation	

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1.4: Human resource	

4.6.5.1 Sub-theme 1.1: Connectivity

In South Africa, data remains a barrier with regards to limits in internet availability and price of data. In the urban areas the connectivity challenges is not that high but for those consumers in the rural areas connectivity is a challenge. Although internet infrastructure does exist in rural areas, it is poorly maintained: "*In SA, considering that digitalisation is detached from the villages and many "locations", it is not yet viable nor is it sustainable for that market*" (Participant 6) and "Zimbabwe has issues with internet being slow and dropping" (Participant 87). This finding is supported in the literature as Maphanzela (2020:49) stated this is recognised by the National Treasury of South Africa as an element that is hindering the growth of e-retailers in South Africa. Another challenge that consumers experience is affordability of data and equipment to access the intranet. "*In South Africa data remains a barrier with regards to limits in internet availability and price of data*" (Participant 1). A further divide is caused by the businesses operating in urban areas having quality internet infrastructure such as fibre, as compared to those operating in underserviced communities such as rural and underdeveloped townships Maphanzela (2020:53). "*It cannot be expected that a person who has limited access to internet data bundles, will be spending it on a house-call from an app*" (Participant 6).

4.6.5.2 Sub-theme 1.2: Adoption rate

Adoption rate refers to the pace that consumers acquired new technology. In the South African context, the corona virus plays a major role in acquiring new technology: "*Digitalisation has unleashed the power to influence an audience we may never have had access to before, by giving us the opportunity to engage consumers and influence their buying decisions whilst still ensuring that we support the stylist and strengthen the e-retailer*" (Participant 6). In urban areas, salons adopt different solutions: "*Internally they can digitalize their booking systems, payment methods, etc. to enhance the consumer experience*" (Focus group 93). To keep in-touch with clients when they are not physically in-store, and to attract new feet into salons, they adopted application to online share information of upcoming events, specials, new launches, product info, new trends and education to name a few. According to Strønen

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(2020:232), traditional online shopping, where a customer can find information and purchase products, is also a digital information format. For those exposed to it, digitalisation may be the way to go and a good event but at the other side of the coin" "*With SA's disparity levels, it may leave some hair care personnel frustrated, despondent and feeling excluded*" (Participant 6). For others they may reject acquiring new technology for the simple reason: "*Fear of change and fear of the unknown*" (Participant 4).

4.6.5.3 Sub-theme 1.3: Government regulation

The South African Government identified beauty salons as one a high-risk industry due to the nature and level of contact a beauty salon process takes. In the beginning they were subjected to a hard lockdown for almost 4 months, hairdressers were unable to earn a living, thereby affecting them, their families, and the industry's contribution to the economy. Currently there are strict protocols in place for salons that limited occupation, double sanitising of equipment, and the wearing of face masks and shields by technicians. In accordance with the directions issued in terms of regulation 10(8) of the regulations under 27(2) of the Disaster Management Act, 2002 (Act no. 57 of 2002), measures to prevent and combat the spread of COVID-19, beauty salons were deemed a substantial risk by the South African Minister of Cooperative Governance and Traditional Affairs, Dr Nkosazana Dlamini-Zuma.

4.6.5.4 Sub-theme 1.3: Human resource

The human resources impact on the industry in two ways, firstly as employees and secondly as consumers. Businesses need to recruit from an already scarce pool of skilled resources, or empower and educate employees in new digitalised technologies, which both require resources, as a scarce skills pool drives up the cost to recruit and retain talent, while courses and education to close the knowledge gap of current employees may be costly too (Maphanzela, 2020:62). "*Several people in SA are skilled in doing hair and it may be a talent they harnessed from a young age, but they do not have the necessary education on hair and how it actually works besides what experience has taught them*" (Participant 6).

4.6.6 Main Theme 4: The negative effect of digitalisation for the hairdressing industry

Although digitalisation has a positive effect, it had some negative effects of for the hairdressing industry as well. Table 4.12 below is a representation of development of the emerging main theme 4: The negative effect of digitalisation for the hairdressing industry.

Table 4.12: A representation of the development of the emerging main theme 1: The negative effect of digitalisation for the hairdressing industry

Sub-themes	Emerging Theme
1.1: Psychological disorders	4: The negative effect of digitalisation for the hairdressing industry
1.2: Data Security	
1.3: Eroding of expert knowledge	
1.4: Gatekeeping	

4.6.6.1 Sub-theme 1.1: Psychological disorders

The lack of human contact due to the excessive use of social media may cause mental illnesses in people like depression. "*A decline in the consumption of content where the attention span of individuals has decreased with the growth of digital platforms requires now that brands and companies create content and concepts that grab a customer's attention within 3 seconds or less*" (Participant 1).

4.6.6.2 Sub-theme 1.3: Data Security

According to Maphanzela (2020:55), one of the key considerations of digitalisation is cyber security where consumers cannot touch products or immediately access services that resulted that trust between businesses and consumers is strongly based on perception. "*I have trust in the companies I purchase from and research to ensure their credibility and their policies on returns and refunds is legitimate before purchasing*" (Participant 1). Access to the internet can expose the consumer to the theft of personnel information, banking information and other information that can be used by hackers for malicious purposes. The thread of a data breach, which cost South

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African companies R 40.2 million on average can lead to the demise of the affected company. To counter the data breach thread companies are force to spend a major amount of money on data security, a cost that companies recover from customers. According to Singh (2021) governments are increasing consumer protection and ramping up regulatory pressures on the digital market.

4.6.6.3 Eroding of expert knowledge

The influence digital has had can be seen in the movement from a traditional approach to tailoring this for digitalisation. Many of the people in the hair industry are older stylists that sell hair care products as a secondary income. "*Discounts online are eroding true retail prices*" (Focus group 99). Advice offer online is focus on a wide audience that does not mean it is a solution for everybody: "*Digital takes away the ability to correctly provide the best solution for the hair. It has the same effect as allowing consumers to determine for themselves which drugs, they need for their sickness*" (Focus group 88).

4.6.6.4 Sub-theme 1.3: Gatekeeping

Gatekeeping refers to a process by which information is filtered to the public by third parties who had a vested interest for example in some business. This is supported by the following comment: "*I believe that the companies that break into digitalisation and master it faster, may be the ones that shut out new and upcoming stylists and salon owners which may create a problem of access*" (Participant 6).

4.7 Consolidation of the quantitative and qualitative findings

In this section, the results of quantitative statistical analysis and the findings of the qualitative thematic analysis are consolidated.

The results have been broken down into two core sections, where the first section covers the presentation of the collected data in terms of percentages, charts, and descriptive statistics of the items and findings of the survey questionnaire, while the second section dealt with the qualitative feedback from interviews conducted around the industry to go with feedback from the questionnaires. In both sections, the 3 main objectives on understanding how digitalisation influenced and transformed business

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(O1), identifying the influences digitalisation has on the key stakeholders within the professional products and services value chain (O2), as well as recommending solutions in relation to the digitalisation of the professional hairdressing industry (O3) have been answered, using a range of questions as both questionnaire and semi-structured interviews in order to achieve the laid out objectives.

The qualitative and quantitative findings both centred on the perceived impact of digitalisation, digital transformation on industry participants, as well as the barriers preventing digitalisation by the industry participants.

4.7.1 The perceived impact of digitalisation

When analysing the perceived impact of digitalisation, 57 % of the indicated that digitalisation had an influence on their organisation's way of working while 30% indicated the way of working is somewhat influence by digitalisation. Only 13% of the respondents experienced no digitalisation influence in their organisation's way of working. This being the case, many respondents think digitalisation has a positive impact on the hairdressing industry (mean = 3.58; SD = 1.20) in accordance with the 5-point Likert scale.

Even in personal use, while industry participants in general do not often purchase digitally (mean = 2.93; SD = 1.50), the majority does purchase digitally nonetheless while most of the respondents agree that digital have enhance their personal consumer experience (mean = 3.58; SD = 1.33) in accordance with the 5-point Likert scale.

To substantiate these findings through interviews, industry value chain participants acknowledged the impact of digitalisation, mostly being positive as found in the above questionnaires. Even with the convenience and positive influence, the general threat of digitalisation to "the one-on-one relationships" remains with a salon owner suggesting that a balance is important as "*we are built on relationships and that touch, if we have no balance and loose that we lose the beauty of our industry*." Transformation of the industry is still an 'idea industry' value chain participant believe as, to go with the 79% agree rate from industry chain participants, transformation can come about from hairdressers "*…can promote our business everywhere, have staff all*

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take part of online trainings, keep them in the salon and not out for a day as well as connect straight away and not wait for people to either come in or get back to you for certain things" as a hairdresser noted.

Four core negative impacting factors are a warning regarding the effect of digitisation of the hairdressing industry, namely psychological disorders, data security, erosion of expert knowledge, and the possibility of gatekeeping.

4.7.2 Digital transformation

When analysing digital transformation in the hairdressing industry, 79% of the respondents reported that they believe digitalisation positively transformed how the hairdressing industry currently operates, but 11% of the respondents indicated it have no impact. Only 10% of the respondents feel that digitalisation had currently a negative transformation impact on the hairdressing industry operations.

In accordance with the 5-point Likert scale, the majority of the respondents are of the opinion that digitalisation have a convenience influence on the hairdressing industry (mean = 3.60; SD = 1.26). The respondents would in general strongly encourage the digitalisation of the hairdressing industry (mean = 3.79; SD = 1.01) and many respondents tend to strongly agree that digitalisation brings value to the hairdressing industry (mean = 3.88; SD = 0.99).

To substantiate these findings, through interviews, 4 main sub-themes are addressed by namely, the Covid-19 pandemic impact, online shopping, online training as well as digitalisation.

In summary, industry value chain participants highlighted how digitalisation has been key in connecting throughout the global network of hairdressers for trends, and innovation as one of the key points of impact digitalisation has had, especially during a pandemic. The influence of digitalisation on ways of working has been evident with a salon owner admitting "*We have had major growth by simply becoming "more convenient, it is also a great way to display my work and adapt and learn."* Even though a hairdresser highlighted that "*when it comes to new products techniques I must test, touch and feel the product for myself,*" it was also noted by the hairdresser that, "*In*

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lock down it was great to still be kept in the loop and have access to all the platforms"
showing that the influence is not only convenient, but also transformative in helping
virtual train and retail while surviving through the Covid-19 pandemic.

4.7.3 Barriers to digitalisation

When it comes to the key barriers preventing digitisation, the respondents indicated
that digitally connectivity and infrastructure (38%) that can include cyber security (8%),
is a major barrier for the hairdressing industry followed by financial constrains (28%).
The availability of suitably human resources (19%) followed by government
regulations (5%) is some other barriers that influence the hairdressing industry.

Other barriers highlighted by substantiated interviews included digital education. The
consumer's concern highlighting how "*several people in SA are skilled in doing hair
and it may be a talent they harnessed from a young age, but they do not have the
necessary education on hair, and how it actually works besides what experience has
taught them*". Many informal salons may be left behind from this transition because
their clients are people they see daily and not a person who looked for them online.
The responses varied from "*They do not have their offerings online*", and another
noting the "*adoption rate from companies to move into the digital space*", which were
lessened by having fewer resources and money to invest in this digital space.

Overall, while there are identified problems and barriers to digitalisation, there are also
value adding solutions the digitalisation of the professional hairdressing industry
comes with, simply summarised by the high encouragement and belief in their being
value by industry value chain participants (at 74% and 79% of respondents
respectively). Even in terms of viability and sustainability, while there is some
hesitation from hairdressers who recurrently cite that the industries core is reliant on
the hands-on feel and touch as well as the digital divide in South Africa, it is also
believed that "*The professional haircare industry will need to continue to show the
value and importance of their business vs an 'at home/DIY' experience – highlighting
the value in a salon experience paired with a at home care service*" with the digital
space continuing to expand and grow, allowing for opportunity in a new level of direct
engagement and advertisement with consumers, as highlighted by a consumer.

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4.8 Triangulation

Cater *et al* (2014:545) describes data source triangulation as involving "the collection of data from different types of people, including individuals, groups, families, and communities, to gain multiple perspectives and validation of data." The authors denote that theory triangulation is the use of a variety of theories and hypothesis to assist support the research.

Using triangulation, Kitto, Chesters and Grbich (2008:244) summarise triangulation as being made up of:

- Observations and recording

- Interviews

- Survey and questionnaire data

- Theoretical research documents

In order to achieve triangulation as per the above, the research data has been collected and analysed by:

- observing industry trends and behaviours with the theoretical versus practical application of theories

- Experiences and behavioural evaluation of industry value chain stakeholders based on descriptive (quantitative) analysis deciphered from the online surveys

- Professional and experienced opinions considered with use of thematic (qualitative) analysis based on online (virtual) interviews conducted with industry value chain stakeholders

Thus, the mixed method research used gathers quantitative, qualitative and theoretical information and ensures the triangulation of the data derived for more completeness and justification of the overall research study, objectives and findings

4.9 Conclusion

In conclusion, this chapter on the digitalisation of the professional hairdressing industry of South Africa and the impact on value chain stakeholders, uses the models discussed in the 3rd chapter's research methodology, data collected from the responses to the questionnaire to present and discuss in a form of descriptive and

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inferential statistics derived from the collected data, further supported by interviews conducted by industry participants who form part pivotal parts of the hairdressing industry value chain. The 3 main objectives around understanding how digitalisation has influenced and transformed business (O1), identifying the influences digitalisation has on the key stakeholders within the professional products and services value chain (O2) as well as recommending solutions in relation to the digitalisation of the professional hairdressing industry (O3) are successfully analytically presented and deciphered in order to gain insight into the industry value chain participants feelings, thoughts, concerns and solutions regarding the digitalisation of the hairdressing industry of South Africa.

CHAPTER 5: RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

The purpose of this research was to explore the digitalisation of the Professional Hairdressing Industry of South Africa and its impact on value chain stakeholders. The findings are aimed at contributing to the professional hairdressing industry in order to both equip and empower the stakeholders with the knowledge and tools to succeed. The research through the literature review, research methodology and research results aim to allow hairdressers, beauty salon owners, distributors, and wholesalers as well as product manufacturers and importers a glimpse into the risk and opportunities presented by the digitalisation era.

Overall, the research advises the population in the industry and gives enough reassurance of their investment, financially, personally, and emotionally, in the success of the hairdresser industry. In the literature review, the research paints a picture of the advantages and disadvantages digitalisation presents, as well as the opportunities and risks that come with the ideology. In the research methodology, the research methodology used by the researcher in addressing the research questions as presented in chapter 1, being, identifying the factors that influence digitalisation, what the influence of digitalisation on the key stakeholders within the professional products and services value chain are as well as providing recommendations for the professional hairdressing industry in relation to digitalisation of the professional hairdressing industry. The research results and discussion compiled the research findings and report on the research questions, answering the research objectives, and interpreting what the information from the findings entails.

5.2 Research objectives for the study

The research objectives defined for the study in Chapter 1 are as follows:

Research Objective 1: Understand the factors of how digitalisation has influenced and transformed businesses.

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Research Objective 2: Identify the influences digitalisation has on the key stakeholders within the professional products and services value chain.

Research Objective 3: Provide recommendations to the value chain stakeholders in relation to the digitalisation of the professional hairdressing industry.

5.3 Findings from the study

In this section, the findings of the literature review and the primary research will be presented.

5.3.1 Research findings from the literature review

The literature identifies theories around digitisation based on the degree, transformation, and barriers that are applicable to the concept of digitalisation. The literature also applies and analyses the stakeholder model to the value chain to determine how value is created within the industry, and the stakeholders' role and link in the value chain. As discussed, the literature review achieves two key aspects: 1) Identify theories around digitisation based on the degree, transformation, and barriers that are applicable to the concept of digitalisation, and 2) How a value is created within the industry and its current model of working and understanding the roles played by the various stakeholder in the value chain relationship.

From digitalisation, digitisation and digitalisation were identified as the key aspects when changing how an organisation operates in order to digitally transform with this transformation being categorised according to the Scale of Digitalisation as defined by Strønen (2020: 232). No change is possible without their being barriers and for the hairdressing industry of South Africa, the review finds that connectivity and infrastructure including cyber security as well as finances, human capital and government regulations are some of the core barriers.

As a value chain, the literature succeeds at firstly defining the value chain (vs what a supply chain is) and secondly, showing through flow charts how value is created

through the industry value chain in the B2B and B2C nature of the industry, defining each core value chain link that forms a part of the industry.

5.3.2 Findings from the primary research

The findings of the primary research will be presented by research objective.

5.3.2.1 Research objective 1

"*Understand the factors of how digitalisation has influenced and transformed businesses*"

Research objective 1 aims to understand the factors of how digitalisation has influenced and transformed business. In the literature review, Strønen (2020:232) which establishes the different scales in which digitalisation can and has influenced business its different business ways of working. The research finds that the different scales in turn help understand how digital transformation occurs.

Digitalisation is defined in the literature review by Zakaria (2019:60) as "a tangible step-by-step transformation for an organisation via the introduction of digital technologies". Zakaria (2019:60) summarises that digitalisation creates new ways of running a business, new products and services as well as enhancing existing products and services. This is in agreeance, Hagberg *et al.* (2016: 699) concludes that the factors digitalisation manages to transform include:

- Physical products into digital services
- Consumer interactions from social media
- The purchasing process by providing information to drive offline purchases

When analysing and discussing the results, it was evaluated that digitalisation, in accordance with the literature review, has influenced and transformed business. The findings emphasis how digitalisation created a convenient and enhanced consumer experience with how the consumers interact and transact with digitised businesses.

Many respondents believe digitalisation has a positive impact on the hairdressing industry (mean = 3.58; SD = 1.20) in accordance with the 5-point Likert scale, while the majority of stakeholders who purchase digitally nonetheless agree that digital enhanced their personal consumer experience (mean = 3.58; SD = 1.33), also in accordance with the 5-point Likert scale. The thematic analysis also identifies online shopping and training as transformative opportunities brought about by digitalisation.

In understanding the influences and transformations, some key threatening factors stick out as biproducts of digitalisation, and how businesses operate. These influences, found in the thematic analysis centre around psychological disorders, data security, eroding of expert knowledge as well as industry gatekeeping as a result of digitalisation that will also affect the hairdressing industry of South Africa.

5.3.2.2 Research objective 2

"*Identify the influences digitalisation has on the key stakeholders within the professional products and services value chain*"

When identifying the influences digitalisation has on the key stakeholders with the hairdressing industry, the literature review firstly defines and identifies what constitutes a value chain stakeholder. Zamora (2016:119) summarises that, "all business firms are part of a value-creating network. However, some firms have greater influence than others in shaping the network; others have minor roles to play and tend to be shaped by the network instead"

In the value chain network of stakeholders, there are businesses that operate in business-to-business (B2B) and business-to-consumer (B2C) markets. As per Kęstutis and Lina (2019, p.76), "B2B applies to companies marketing their goods or services exclusively to other businesses (a manufacturer deals with a wholesaler, or a wholesaler with a retailer) and not to consumers, while B2C applies to businesses marketing their goods or services to consumers". Based on the literature, 5 key stakeholders are identified as members of the professional products and services value chain in the hairdressing industry:

- Manufacturers and suppliers

- Key accounts, distributors, and wholesalers

- Beauty salon owners and hairdressers

- Consumers

When analysing and discussing the results, it was evaluated that the influence digitalisation has on the key stakeholders within the professional products and services value chain can be seen as positive. The industry participants highly encourage and see value in digitalisation with 74% and 79% of respondents evaluated participants encouraging and citing their being value respectively.

The thematic analysis of the qualitative interviews also conclude that digitalisation is viable and sustainable. For the industry, digital spaces afford the industry the opportunity to directly engage and advertise with and too consumers, allowing the industry to continue to expand and grow by reaching greater consumers quicker and being more accessible.

Barriers to digitalisation remain a threat to the digitalisation of the hairdressing industry. The literature review according to Maphanzela (2020) and Singh (2021) found that the key barriers were connectivity, cyber security, infrastructure, finances, human capital required and government regulations. The thematic analysis of the research further emphasised these barriers identifying the adoption rate as barrier in addition to connectivity, government regulations and human capital required.

Overall, the quantitative evaluation indicated that digital connectivity and infrastructure (38%) that can include cyber security (8%) is a major barrier for the hairdressing industry, followed by financial constrains (28%). The availability of suitably human resources (19%), followed by government regulations (5%), are some other barriers that influence the hairdressing industry

5.4 Research conclusions

The research conclusions will be given by addressing the 3rd objective of the research which is providing recommendations.

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5.4.1 Recommendations

Based on the findings of this study the following recommendation can be made to encourage value chain stakeholders to digitally transform the services, products, and/or ways of working to enhance consumer experience, and seizing the opportunities created by the digital age to evolve the industry. In the experience of value chain stakeholders, digitalisation's impact is being perceived as positive and while there are threats and concerns, value chain stakeholders still believe digitalisation can add value to the hairdressing industry. To digitally transform, the hairdressing industry will need to address the key barriers that involves seeking infrastructure and connectivity required to reduce the digital divide, financing, and education to address the human resources skills barrier that comes with digital transformation.

5.4.1.1 Digital transformation

According to Marchegiani (2021:105), digital transformation is now commonly referred to as "the transformational or disruptive implications of digital technologies for businesses, in terms of new business models, new types of products/services and new types of customer experiences" which has grown in research surrounding the topic, with there being 22,896 records that include the keyword "digital and transformation" between 2000-2019 according to Marchegiani (2021:106). The author introduces the Digital Transformation Framework, which links the elements of the digital transformation strategies common to companies regardless of their industry, size, or technology maturity stage (Marchegiani, 2021:110).

In summary, the framework emphasises the use of innovative technologies, which is represented by businesses technological readiness as far as "attitude towards new digital technologies and its capability to leverage them for organizational" is concerned, to create value through strategies that impact the value chain, leverage in organisational set up and way of working all considered within the financial capabilities of the business.

For the hairdressing industry value chain stakeholders to digitally transform, the following is recommended with the use of the Digital Transformation Framework:

Educate: Value chain stakeholders should educate themselves and staff about digitalisation and the technologies that can bring about efficiency and effectiveness with the opportunities thereof. As suggested in the framework, when identifying the technologies, much consideration must be given to the current operational structure and identify where potential efficiencies lie that can be brought about by modern technologies.

The education will also serve to reduce the human resource barrier earlier highlighted; the more educated value chain stakeholders are on the technology and operational opportunities, the more effective the stakeholders will be with new developed skills and know-how. Education is also an aspect the Services SETA assist with in developing and supporting learnership programmes that teach and examine some level of technological education.

Finance: Value chain stakeholders can finance technological developments with collaboration with the HCSBC, which is the National Bargaining Council for Hairdressing, Beauty, Cosmetology, and Skincare Industry. Value chain stakeholders can either self-fund from operations and savings, borrow funding from lenders with the liability to pay back that can be built into the revenue structure, or making use of government funding opportunities such as National Empowerment Fund, SEDA (Small Enterprise Development Agency) or The Small Enterprise Finance Agency (SOC) Ltd.

Making use of other options such as Finfind (Pty) which "provides financial products and services to qualifying small, medium and micro enterprises (SMMEs) and co-operatives" all while making use of the HCSBC to ensure the best deals are negotiated through collective bargaining. The funding will also be key for building and creating the appropriate infrastructure required for digitalisations in communities and societies to greatly assist the business and salon owners

Industry influence: Value chain stakeholders can influence industry and government organisations such as the Service SETA with the assistance of the HCSBC, to help

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close the digital divide gap by providing overall connectivity infrastructure. While the "facilitation of quality skills development for employment and entrepreneurship in the services sector for national economic growth" (Services SETA Strategic Plan, 2019) is the core mission of the Services SETA, innovation is one of the core values of the Services SETA alongside accountability, integrity, professionalism, and responsiveness. Government involvement could help lessen the cost of digitalisation for the hairdressing industry, making the prospect more accessible.

Overall, digital transformation can be achieved in the hairdressing industry by educating, financing, and making use of the collective influence. The industry must achieve and succeed at the Digital Transformation Framework core pillars, which in turn will allow for the use of technologies to be able to optimise operations and create value for the full industry.

5.5 Areas for further research

Areas for further research are increasing the limited number of participants, as a greater number of respondents would have provided a more in-depth assessment. A limited number of manufactures/suppliers, as well as distributors/wholesalers were used. The study requires further research, as extensive research has been concluded by using limited value chain stakeholders in each sampled tier. Future studies need to look specifically at how digitalisation and every value chain stakeholder tier can improve overall in the industry.

5.6 Managerial implications and/benefits

As recommended, digital transformation can be achieved in the hairdressing industry by educating, financing, and making use of the collective influence the industry must achieve and succeed at the Digital Transformation Framework core pillars which will allow for the use of technologies to be able to optimise operations and create value for the full industry.

Value chain stakeholders should at a micro and macro level initiative transformative actions that bring about digitalisation. At a micro level, the direct understanding and scaling of the finance requirement should be derived by stakeholders. The ability to

raise such funds in previously recommended solutions will assist stakeholders in acquiring digitalised means of operating. The operational adoption will bring about a need for training as an educational driver of digitalised systems and proves which will help close the digital knowledge gap form an operational aspect and allow users to tactically make decisions based on this knowledge.

At a macro level, the industry influence must be used to fast-track infrastructural improvements and develop educational opportunities at a national level (SETA) to ensure the sustainability of a digitalised industry. Digitalisation incorporated in the basic education of stakeholders supported by the required infrastructure changes can conclude the Digital Transformation Framework core pillars which will allow for the use of technologies to be able to optimise operations and create value for the full industry.

Overall, the industry benefits by becoming more accessible and efficient in its services while still keeping the expertise and knowledge safe within the different levels of the hairdressing industry. The effectiveness and efficiency will both be highly appreciated by consumers and be economically beneficial to the operational structures of stakeholders. As highlighted by Participant 1, "*Digitalisation has unleashed the power to influence an audience we may never have had access to before, by giving us the opportunity to engage consumers and influence their buying decisions whilst still ensuring that we support the stylist and strengthen the e-retailer*".

5.7 Conclusion

The achievements and shortcomings of the research have been presented in this concluding chapter. The research explored the digitalisation of the Professional Hairdressing Industry of South Africa and its impact on value chain stakeholders. The findings are aimed at contributing to the professional hairdressing industry to both equip and empower the stakeholders with the knowledge and tools to succeed. In the experience of value chain stakeholders, digitalisation's impact is being perceived as positive, and while there are threats and concerns, value chain stakeholders still believe digitalisation can add value to the hairdressing industry. As wholly recommended, digital transformation can be achieved by the hairdressing industry by educating, financing, and making use of the collective influence the industry must

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achieve and succeed at the Digital Transformation Framework core pillars, which in-turn will allow for the use of technologies to optimise operations and create value for the full industry.

The necessary due diligence for this research was undertaken in terms of approval and ethical clearance from the University of South Africa ("UNISA"). This approval process encompassed the research pilot, the design, the research instrument, and the proposed selected research sample for data capture.

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APPENDICES

Appendix A: Online Questionnaire

Questions	1	2	3	4	5
Q1: What channel from the below options would you categorize yourself/organization as?	Manufacturer/Supplier representative	Distributor/Wholesaler	Salon owner/manager	Hairdresser/Stylist	Consumer
Q2: How often, for your personal use, do you purchase digitally (online, mobile apps, etc.)?	Never	Once a month	Twice a month	Three times a month	Over three times a month
Q3: Has digital enhanced your personal consumer experience?	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree
Q4: How do you think digitalisation has impacted the hairdressing industry?	Negatively	Somewhat negatively	Not at all	Somewhat positively	Positively
Q5: Has digitalisation had an influence on you/your organisation's way of working? (bookings, ordering, hairdressing interaction, education etc.)	No	Somewhat	Yes		
Q6: What best describes the influence of digitalisation on the hairdressing industry?	Threatening	Somewhat Threatening	No Impact	Somewhat convenient	Convenient
Q7: Do you believe digitalisation has/can transform how the hairdressing industry currently operates?	Yes Negatively	No	Yes Positively		
Q8: What do you believe is the biggest barrier to digitally transforming the hairdressing industry?	Connectivity and infrastructure	Cyber security	Finances	Human resources required	Government regulations
Q9: Would you encourage or discourage the digitalisation of the hairdressing industry?	Strongly discourage	Discourage	Indifferent	Encourage	Strongly encourage
Q9b: Please give a reason for your Q9 answer					
Q10: Do you believe digitalisation brings value to the hairdressing industry?	Strongly disagree	Disagree	Indifferent	Agree	Strongly Agree

Appendix B: Structured interview

The Digitalisation of the Professional Hairdressing Industry of South Africa

Please answer the questions as applicable to the channel you have categorized yourself in

1. Do you purchase digitally, and has it enhanced your personal consumer experience?

2. How do you think digitalisation has impacted the hairdressing industry? Elaborate with reasoning

3. How has digitalisation had an influence on you/your organisation's way of working? (Bookings, ordering, hairdressing interaction, education etc.)

4. How do you believe digitalisation has/can transform how the hairdressing industry currently operates?

5. What have been some of the biggest barriers to digitally transforming the hairdressing industry?

6. What value do you believe digitalisation brings to the hairdressing industry?

7. What threat do you believe digitalisation brings to the hairdressing industry?

8. Is the digitalisation of the hairdressing industry viable and sustainable? Elaborate with reasoning

9. What are any additional related comments?

Appendix C: Factor Analysis

Table C.1: Item inter-correlation matrix for the Questionnaire (N = 101)

ITEMS	Q2	Q3	Q4	Q6	Q9	Q10
Q2: How often, for your personal use, do you purchase digitally (online, mobile apps, etc.)?	1.000					
Q3: Has digital enhanced your personal consumer experience?	.540	1.000				
Q4: How do you think digitalisation has impacted the hairdressing industry?	.070	.033	1.000			
Q6: What best describes the influence of digitalisation on the hairdressing industry?	.210	.133	.579	1.000		
Q9: Would you encourage or discourage the digitalisation of the hairdressing industry?	.358	.366	.427	.540	1.000	
Q10: Do you believe digitalisation brings value to the hairdressing industry?	.240	.201	.417	.344	.451	1.000

The item inter-correlation (r) calculations as reflected in Table C.1 above show that some correlations between the majority of the items are r = .3 or greater that are a requirement for factor analysis (Pallant, 2007:158)

Table C.2: Eigenvalues of the Unreduced Item Inter-correlation (N = 100)

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	**2.68**	**44.66**	**44.66**
2	**1.36**	**22.72**	**67.38**
3	0.67	11.16	78.53
4	0.48	8.07	86.60
5	0.45	7.52	94.12
6	0.35	5.88	100.00

Extraction Method: Principal Component Analysis.

The above Table C.2 shows that 2 factors can be extracted from the Questionnaire items according to Kaiser's (1970) criterion (Eigenvalues larger than unity), explaining about 67% of the variance in the factor space.

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Appendix D: Consent Form (Supervisor)

The Programme Administrators: MBL and MBA Research report

Graduate School of Business Leadership

P O Box 392

UNISA

0003

STUDY LEADER LETTER OF CONSENT TO SUBMIT RESEARCH REPORT

Consent is hereby given to:

Student name: LEFA NYEPETSI KOKONG

Student number: 55569285 to submit the research report in its final form.

Name of study leader: **Dr. Sugandren Naidoo**

Date: **15 December 2020**

Study leader signature:

The student acknowledges that the study leader provided sufficient feedback and that he took the responsibility to attend to the feedback in a way that satisfies the requirements for a mini dissertation on the MBL and MBA level.

Student signature:

Date: 15 December 2021

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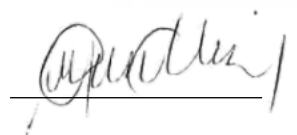**Appendix E: Editing proof**

Marieta Grundling (MBA)

<div align="right">
366 Rosemary Street

Grootfontein Country Estates

Pretoria, 0081

081 354 1596

edit@profeditmba.co.za

23 November 2021
</div>

To Whom It May Concern

This serves to confirm that the dissertation: *The Digitalisation of the Professional Hairdressing Industry of South Africa and the impact on value chain stakeholders* by *Lefa Nyepetsi Kokong* was edited. The language, presentation, referencing system (both in-text and against the Reference List), were checked and corrected.

M Grundling

23 November 2021

Appendix F: Ethics Clearance

SCHOOL OF BUSINESS LEADERSHIP

RESEARCH ETHICS REVIEW COMMITTEE (GSBL CRERC)

13 December 2021

Ref #:	2021_SBL_MBA_010_FA
Name of applicant:	Mr L Kokong
Student #:	55569285

Dear Mr Kokong

Decision: Ethics Approval

_____

Student: Mr L kokong, (55569285@mylife.unisa.ac.za , 079 508 9613)

Supervisor: Dr S Naidoo, (naidoosu@unisa.ac.za , 012 429 3304)

Project Title: The Digitalisation of the Professional Hairdressing Industry of South Africa and the impact on value chain stakeholders.

Qualification: Master in Business Administration (MBA)

Expiry Date: December 2022

_____

Thank you for applying for research ethics clearance, SBL Research Ethics Review Committee reviewed your application in compliance with the Unisa Policy on Research Ethics.
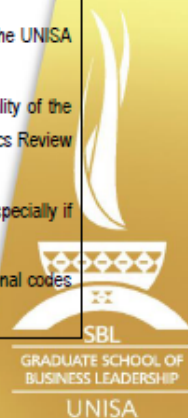
Outcome of the SBL Research Committee: Approval is granted for the duration of the Project

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the SBL Research Ethics Review Committee on the 10/12/2021.

The proposed research may now commence with the proviso that:

1) The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached

2) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

3) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the SBL Research Ethics Review Committee.

4) An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.

5) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

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UNISA

Kind regards,

NBW M Mlitwa

Prof N Mlitwa

Chairperson: SBL Research Ethics Committee

011 - 652 0381/ wiltonb@unisa.ac.za

Prima Msweli

Prof P Msweli

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