

The brand personality of selected universities of technology in South Africa: A content analysis of their strategic plans

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Master's thesis

Master's in Education Management



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Specialisation Marketing, Gaming, Branding, Education management	
Thesis title The brand personality of selected universities of technology in South Africa: A content analysis of their strategic plans	Number of pages + number of appendices 79
<p>In the emerging digital age, universities seek to differentiate their brands through social media, websites and strategic plans, which reflect those activities that cannot necessarily be digitised. How a company presents itself to the world, is defined by its corporate brand personality. To understand the importance of the brand personality in higher education, the dimensions, along with how brand personality is perceived, need to be investigated.</p> <p>During a master's in education-management group discussion, it was highlighted that the strategic plan, as well as the website of the Tshwane University of Technology, lack certain aspects, as regards what the university communicates to its audience at large.</p> <p>By understanding the importance of brand personality within strategic plans, as well as how a university's website attributes are portrayed, can assist the management of universities in the formulation of marketing strategies that can enhance the communication efforts targeted at potential and current students.</p> <p>A content analysis was used in the analysis of the strategic plans of four Universities of Technology in South Africa. The units of analysis for this study consist of Aaker's five broad dimensions of brand personality. However, the Aaker model was adapted, in order to be applied within the educational environment. The website attributes of the Tshwane University of Technology were also analysed by means of a content analysis.</p> <p>The findings of this study led to the development of an adapted version of the brand's personality model that was first developed by Aaker (1997). The adapted model can be applied within the strategic plans and within any other marketing communication strategies within Higher education.</p>	
Keywords Brand personality, branding, strategic plans, education, websites.	

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Abbreviations

UOT - Universities of Technology

TUT – Tshwane University of Technology

HEQSF – Higher Education Qualification Sub-Framework

CHE – Council of Higher Education

BGUR - Best Global Universities' Rankings

DHET - Department of Higher Education and Training

SEO – Search-engine optimization

1. Introduction

In the emerging digital age, universities seek to find their way in digitalising their communication and brands through their strategic plans, social media and websites, which reflect those activities that cannot necessarily be digitised. Higher education, according to Roth (2013), is primarily a service of which parts thereof are tangible, meaning that the service is consumed at the point of purchase. The only part of education that can be seen as tangible, is the information (content) and the transfer component, which includes the skills, the data and the facts learnt by the students.

Kalenskaya, Gafurov and Novenkova (2013) agree; and they add that education, as a service, fulfils the need for learning, acquiring knowledge (an intangible benefit) with the help of tangible components, such as infrastructure and intangible components, such as teaching and learning expertise, where the buyer (the student) does not acquire any ownership. Prospective students follow the same decision-making process, when they need to purchase a consumer good or an educational service. Therefore, universities need to position their brands via their strategic plans, the social media and their websites, in order to attract high quality students and academic staff.

Branding and corporate identity in higher education have emerged as important issues for management at universities (Curtis, Abratt & Minor, 2009; Foroudi, Dinnie, Kitchen, Melewar, & Foroudi, 2017; Melewar & Akel, 2005; Melewar, Foroudi, Dinnie, & Nguyen, 2018; Wæraas, & Solbakk, 2009).

The American Marketing Association (2020) defines a brand as a name, term, design, symbol, or any other feature that differentiates a seller's good or services from those of others. Corporate identity, on the other hand, is defined by MBA School.com (2020), as the representation of how an organisation views itself and how it portrays itself to the public. Furthermore, colour schemes, words, designs and trademarks are used to build the corporate identity of a company (MBA School.com, 2020).

How a company presents itself to the world is defined by its corporate brand personality. To understand the importance of corporate brand personality, the concept of what brand personality entails needs to be looked at. Brand personality, according to Keller and Richey (2006), is seen as the human characteristics or the traits that the brand holds. If the brand were to come alive as a person, what would it represent, who would it talk to, what would it talk about and what would it do?

With that said, Websites play an important role in exposing the brand personality and the identity of organizations (Ahuja, Jain & Medury, 2013).

Foroudi et al. (2017) state that a well-designed website is an essential strategy for the success of a company; since it contributes to the brand awareness by providing relevant information to current and prospective consumers.

The attributes found on the website of a university, or any other business, for that matter, inform the user of who they are, as well as what products or services they offer. During a master's course in education-management group discussion, it was highlighted that the strategic plan, as well as the website of the Tshwane University of Technology, lack certain aspects with regard to what the university communicates to its audience at large.

Academic literature on the growing importance of online communication as part of corporate identity in higher education has largely been neglected; and therefore, the need for further investigation has also been overlooked (Opoku, Abratt & Pitt, 2006). Additionally, studies on corporate identity and brand personality have been limited to products and services, while little attention has been devoted to online brand communication in higher education (Kaushal, & Ali, 2019; Rauschnabel, Krey, Babin & Ivens, 2016; Rutter, Lettice, & Nadeau, 2017).

Prominent scholars have found that most content analysis studies of websites are focussed on commercial companies; while the examining of educational websites are somewhat limited (Kahan & McKenzie, 2020; Opoku, Abratt & Pitt, 2006; Peng, Wu, Atkins, Zwarenstein, Zhu, Zhan, Zhang, Ran & Yan, 2014). The purpose of this study is to determine, through a content analysis, whether universities communicate their brand personality in a clear and distinctive manner.

By understanding the importance of corporate identity and brand personality, as well as how the website attributes are portrayed, one can assist the management of Universities in the formulation of marketing strategies that could facilitate the communication efforts that are targeted at potential and current students.

By means of a content analysis, the strategic plans of four Universities of Technology in South Africa were analysed.

The content analysis provided answers to the following research questions:

- Do all the universities of technology have brand personalities?
- What are the underlying personality dimensions found within the strategic plans of the universities of technology?
- How effective are the website attributes of the Tshwane University of Technology?

A literature study on the products and services, along with the importance of branding, corporate identity, brand personality and the role of websites, are discussed, in order to help answer the research questions listed above.

2. Product and Service classification

Products, according to Kotler (2003), are normally described as durable or tangible items that are classified into either consumer goods or industrial goods. Furthermore, products can be categorised as business products, used in the manufacturing of other goods, or as the services and consumer products used by individuals to satisfy a need or want. Additionally, Kotler and Keller (2006) identified three product groups found within the market place, namely: non-durable goods, durable goods and services. Non-durable goods are those tangible products that are consumed and purchased on a regular basis. Durable goods, on the other hand, are tangible; and they can be used on many occasions. However, services are perishable, inseparable and intangible.

For the purpose of this study, services will be discussed in more detail, seeing that the core activities found at higher institutions comprise services. Ng and Forbes (2009) argue that universities deliver a core service, namely, a learning experience to students. Ng and Forbes (2009) further state that marketing research in the higher education industry is limited; and therefore, more research into this field is needed.

Zikmund and D'Amico (2001) define a service as an activity performed for the consumer, or as a consumer activity, in which the consumer participates; while no ownership of any products or facilities of an organisation are taking place. Kasper, van Helsdingen and Gabbot (2006) agreed; and they add that the main purpose of a service is to create customer satisfaction; while a fairly perishable inactive process that does not include any material possession is taking place. Similarly, Kasper et al. (2006) argue that a physical product is not always present when a service is being performed; and therefore, no ownership can be linked to the transaction.

Since services, as in education, have no physical characteristics embodied within them, the marketing of such, is more complex than that of a physical product.

2.1 The basic characteristics of services

As indicated in **Figure 1**, Brassington and Pettitt (2003) identified five characteristics of a service as being: that a service is intangible, perishable, is heterogeneous, inseparable; and it lacks ownership. Iacobucci and Ostrom (1996) found that consumers find it more difficult to evaluate different services, due to the credible qualities of the service provided. Brassington and Pettitt (2003) agree with Iacobucci and Ostrom (1996); and they mention

that the service experience created for the consumer is at the heart of the service, even though the quality of service is only experienced once the consumer is committed to the purchase. The fact that a service purchase is somewhat riskier for a consumer than a physical product, means that the marketing of such a service is vital.

The variability characteristic of services, according to Zikmund and D'Amico (2001), refers to the heterogeneous ability of a service, thereby meaning that such services can vary widely with regard to the quality of the service being delivered.

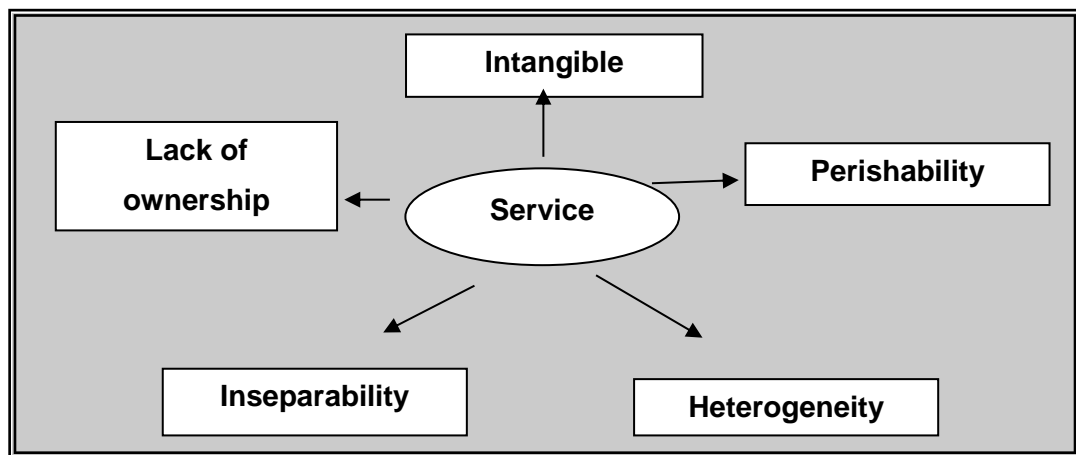


Figure 1 – Characteristics of service markets (Adapted from: Brassington and Pettitt (2003))

Intangibility means that consumers do not have the ability to re-evaluate the value of a service after using the service. Contrasting to a physical product, a service cannot be tasted, seen, touched, heard or smelt – before the purchase takes place (Levitt, 1981). New prospective students are annually faced with various alternative universities, from which to choose. Each university differs in what it can offer to students, once they have enrolled. The fact that education, as a service, cannot be evaluated before consumption, increases the difficulty in decision-making; and therefore, selection takes place on the basis of word-of-mouth, in addition to the general perception of the university, and how the universities differentiate themselves from other comparable institutions.

Since services are produced at the same time as they are consumed makes, it impossible to store them (Brassington & Pettitt, 2003). Teaching and learning services provided by universities to students are, therefore, described as perishable services. The teaching and learning take place; while the learners are in the classroom, and while the university lecturer conducts the lesson.

Currently, the in-class lessons are recorded; and can be looked at again, after a contact session has taken place, thereby rendering the service available to learners a second time around.

Inseparability occurs when the service delivery cannot be separated from the service providers (Brassington & Pettitt, 2003). The learners often come into direct contact with the service provider, namely the university lecturers, or the university staff in general. Lambin (2000) points out that services like education are produced and consumed at the same time; and consequently, the consumer (the learner) participates in the process of the service production (teaching and learning).

As mentioned earlier, ownership does not take place after the purchase of a service. Brassington and Pettitt (2003) argue that such services refer to deeds and processes; and therefore, no goods are being exchanged or transferred from the provider to the consumer. At educational institutions, the transfer of services takes place within the classroom; when teaching and learning occurs. With regard to the exchange of goods, some educational institutions do provide learners with learning material that is needed, in order for the service (teaching and learning) to take place satisfactorily.

As illustrated in **Figure 2** below, the activities involved in the delivery of services are classified in two main dimensions, namely: the degree of interaction and the customisation thereof. Services are divided into four categories: i.e. service shops, service factories, professional services and mass services (Lambin, 2003).

Service shops, like hospitals and restaurants, require a lower degree of customer interaction and a high degree of customisation; since each patient has different needs; and each customer orders a meal to suit his or her taste.

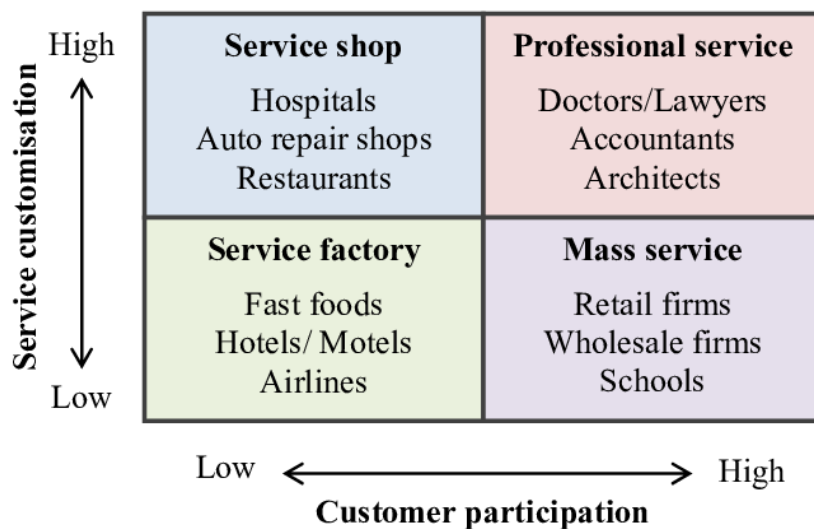


Figure 2 – The service-process matrix (Adapted from: Lambin, 2000)

Service factories, on the other hand, involve businesses like fast-food outlets, hotels and airlines, which involve low customisation and low customer participation. Customers who make use of these type of services normally order a generic meal from their favourite fast-food outlet, without changing anything; and therefore, they require low levels of participation and customisation.

Furthermore, **professional services** provided by lawyers, doctors and accountants require a high degree of interaction and customisation; since each case is unique; and each approach is different. The inputs of customers are thereof vitally important in making these service processes viable and successful.

Lastly, educational, retail and wholesale companies are classified **as mass services**; since the delivery of these services requires a high level of participation – both from the customers, and low level of customisation, from the side of the organisation or the company. At retail or wholesale stores, customers conduct the process of selecting the various product offerings within the store; while the store staff provide the services within the store and at the check-out counters.

In education, prospective students have various qualification options, from which to choose; and the programs offered to students are generic; and they cannot, therefore, be customised to the needs of each individual student. Once enrolled, the learner participates actively in the teaching and learning activities, which are provided by the university.

The high student enrolment numbers contribute to the low customisation opportunities of each program that is offered within a university. Customisation can slightly increase at the postgraduate level, by allowing students to select the research topics of their choice; although the program offerings and their specifications remain the same.

The fact that education is classified as a mass service, increase competitiveness within this market segment. Therefore, it is of the utmost importance that educational institutions, like the Tshwane University of Technology, develop strategies to differentiate themselves from their competitors. With that said, by understanding and differentiating a brand, this is the starting point of creating awareness in the minds of potential consumers.

3. Corporate Identity and Brand Personality

In Chapter 3, the importance of corporate identity and brand personality for universities, are explained.

3.1 Introduction

Marketing in higher education is no different from those strategies used in other industries; since the functions of a brand are generally similar. A brand can assist and facilitate the communication efforts of an organisation by informing the target market of a new product offering, and by enhancing the customers' loyalty. Due to the increase of competitors within the educational space, universities and colleges globally, seek to differentiate themselves. Palacio, Meneses and Pérez (2002), as cited by Chapleo, Durán and Díaz (2011), found that the increase in educational competitors, has led to a growing interest in the importance of branding in education.

Additionally, Rutter, Lettice and Nadeau (2017) added that as with the numerous consumer products and brands found in the market place, potential students are faced with various educational offerings that influence their decision-making process. Rutter et al. (2017) further argued that brands influence perceptions; and university brands in particular, have become crucial in the student decision-making process. With that said, universities and colleges need to manage their corporate identity and brand personality through the differentiation of what they stand for (strategic plans) and their product offerings (various qualifications).

In today's competitive environment, websites and social media form part of an organisations' online corporate identity and brand personality. Internet branding also known as i-branding is becoming pertinent for organisations in their search for new internet branding strategies that can create distinctiveness and engagement with consumers (Chapleo, Durán & Díaz, 2011).

This Chapter 3 explores the various elements involved in corporate identity and brand personality. Branding in education and its role in corporate identity and brand personality is argued. Thereafter, the importance of website attributes is discussed.

3.2 Brand

More than half a century ago, cattle ranchers branded their cattle to identify their animals from those of their neighbours. During the 1880s, companies like Coca-Cola started by adding recognisable labels to their products, in order to differentiate them from the generic competition (Lloyd, 2019). By having a recognisable mark or brand on the product packaging, facilitates the process of distinguishing the brand amongst various alternatives available in the marketplace (Murphy, 1992). Dawar (2019) points out that a brand is a name that a company uses to label its product, in order to communicate with the consumers. Dewar (2019) further explains that a brand can also be viewed at the reputation that a name builds for itself in the marketplace.

Rooney (1995) defines a brand as a symbol, name, design or a combination thereof that identifies the product of a specific company. Kenton (2020) agrees with Rooney (1995); and this author adds that companies use an identifying symbol, mark, logo, name, word, and/or sentence to differentiate their product offerings from those of other manufacturers. Kenton (2020) further adds thereto, by saying that a combination of one or more of the forementioned elements can be used to create a company's brand identity. Lischer (2020) argues that a brand is more than a term, name, design or symbol; rather, it is the recognisable emotion that lives in the minds of those consumers who experience it. Brands, according to Lischer (2020), are therefore, purely perceptions.

Branding, on the other hand, involves the marketing practice of actively shaping a brand. Branding can be divided into two broad categories, namely product branding and corporate branding. Xie and Boggs (2006) explain that with corporate branding, the brand and the corporate name of the company follow the same strategy; while product branding builds separate brand identities for the various product offerings of the same company. LaMarco (2019) agrees with Xie and Boggs (2006); and this authors adds that product branding is the marketing of a specific product by focusing exclusively on the product itself; while corporate branding involves the marketing of products and services, under the name of the company itself.

Additionally, Rutter, Lettice and Nadeau (2017) argue that prospective university students view their higher education experience as a commercial transaction; since a great financial return can be expected after the completion of one's studies. Universities in and around South Africa offer relatively similar qualifications, which in turn, increases the competitiveness in the cluttered marketplace. With that said, prospective students may find the decision-making process of selecting a university, confusing; and therefore, universities

need to manage their brands more proactively, in order to create awareness and differentiation for their prospective students.

Universities and colleges follow a corporate branding approach, when promoting qualifications and program offerings to prospective students; therefore, this concept will be discussed in the next section.

3.3 Corporate Branding

Corporate branding provides companies with the opportunity to present their brands and various product offerings across many different sectors (LaMarco, 2019). The digital school of marketing (2019) has identified the following attributes of a corporate brand:

- These brands are normally rich in tradition and heritage;
- They have a high level of capability and of assets;
- They have a local and international presence;
- They are influential; and they are prominent founders of particular values;
- They have excellent performance records.

Taking the above-mentioned attributes into consideration, when evaluating the current corporate brand of the Tshwane University of Technology (TUT):

It is rich in tradition and heritage. Tshwane University of Technology is a proud product of South Africa's first decade of democracy. The Tshwane University of Technology was established on the 1st of January 2004, when the Technikon Northern Gauteng, the Technikon North-West and the Technikon Pretoria merged. The word Technikon was replaced by University, in order for it to become internationally compatible. TUT is seen as a mega university – due to the high annual enrolment numbers, reaching as many as 60000.

With regard to the high level of capability and assets, the TUT has a presence in four of South Africa's nine provinces: Gauteng, Mpumalanga, Limpopo and the Northwest Province, with campuses in Tshwane (Arcadia Campus, Arts Campus, Pretoria Campus, Ga-Rankuwa Campus and the North and South Campuses in Soshanguve), Mbombela, eMalahleni and Polokwane.

As mentioned, TUT service students are to be found in and around four of the nine provinces in South Africa; while internationally, various collaborations with international universities

have been established. The TUT also attracts numerous students from other provinces and neighbouring countries, such as Zimbabwe, Botswana, Swaziland and Namibia.

TUT stands true to itself, when it comes to the influential and prominent founders of particular values. The education offered at TUT has an entrepreneurial focus, which opens up career opportunities for students by creating success through innovative and creative thinking. The diversity of the staff and students, as well as other stakeholders, contributes to the strength of this university. Known as the people's university, TUT strives to fulfil its vision "*A people's university that makes knowledge work*". The mission of the university states that "*We advance social and economic transformation through relevant curricula, impactful research and engagement, as well as quality learning experiences, dedicated staff and an enabling environment.*" While their values comprise:

Integrity: We will always act honestly, ethically and professionally;

Care: We will treat everyone with dignity and respect; and we green our environment;

Our core values are: Diversity, Inclusion and Equity: We will embrace diversity, foster inclusivity and promote equity.

Excellence: We will constantly innovate, solve problems and aim to improve ourselves and others.

Accountability: We are answerable to each other; and we will act in the best interests of the University at all times.

With regard to excellent performance records, the TUT is a career-focused institution that seeks to serve the South African community at large. The university is known for its social and economic development and its quest to promote knowledge and technology. TUT provides the market with career-focused learners by creating sustainable growth opportunities for the community and its people (Tshwane University of Technology, 2020; The world university rankings, 2020).

3.3.1 The benefits of a corporate brand

Fanaras (2020) highlights five benefits that organisations can achieve when building and maintaining a strong corporate brand:

1. **Customer recognition.** Having a strong corporate brand can assist customers in recognition of the brand. When consumers need a specific product or service, brand recognition can assist the consumer in the evaluation of alternatives available in the market. TUT is a well-known brand in South Africa; and it is rated number 12 amongst the best universities in South Africa, and 1044 among the best global universities' rankings (BGUR) (TUT, 2020).
2. **Competitive edge in the market.** A company obtains a competitive edge, as soon as the company's brands are recognisable in the minds of the consumers. The higher the recognition, the more competitive the brand will become. TUT is the leading university of Technology in South Africa, making it the preferred choice of many learners entering the educational market. The geographical footprint of TUT provides access to various prospective students in and around South Africa.
3. **Easy introduction of new products.** Loyal customers make it easier for companies to introduce new products. With that said, TUT has introduced a new curriculum in 2019, by replacing old qualifications with a new Higher Education Qualification Sub-Framework (HEQSF) of qualifications, as guided by the Council of Higher Education (CHE) in South Africa. The annual student enrolment numbers are a clear indication that the new qualifications and programs have been accepted by many because of the university's reputation of being student-centred.
4. **Customer loyalty and shared values.** Customers are drawn to a brand, with which they share similar values. The values of the corporate brand need to be conveyed to the consumers, in order to establish a connection. The values of TUT, as mentioned before, guide the corporate culture of the university; and they are visible in its day-to-day operations and interactions with the stakeholders.
5. **Enhanced credibility and ease-of-purchase.** A strong corporate brand enhances the credibility amongst stakeholders in the community. Credibility, in turn, builds recognition, trust, competitiveness and loyalty amongst the consumers. Through its footprint in and around Africa and South Africa, TUT has built credibility amongst the general population. The slogan "*The peoples' university*" and the entrepreneurial approach in teaching, creates a sense of preparedness and belongingness amongst those longing to become part of such a diverse university.

3.3.2 The fundamentals of a reputable corporate brand

A Corporate brand is what consumers think of when they hear something about or see the company brand logo or slogan (smallbizclub.com, 2020). Smallbizclub.com (2020) found that a clear and powerful message and a recognisable appearance are all the elements that can assist in building a company's brand. Furthermore, by building customer trust and by having a consistent corporate culture, this can encourage loyalty from both the customers and the employees.

De Chernatony (1999) argued that corporate branding provides a strategic focus for positioning and enabling staff to better understand the type of organisation for which they work. With that said, the answers to the questions below from Reachfirst.com (2020) are directly quoted from the 2020-2025 strategic plan of the Tshwane University of Technology (TUT, 2020):

Reachfirst.com (2020) agrees with Smallbizclub.com (2020); and it adds the following key fundamentals needed for the development of a reputable corporate brand:

1. What is your brand all about? "*Umntu ngumuntu ngabantu*" defines TUT's moral purpose, as a "*people's university*," which empowers our communities and transforms our society via meaningful and impactful engagement."
2. What are your services and products?
 - "To deliver research-informed high-quality teaching and learning experiences to our students";
 - "To equip our students with knowledge, skills and attitudes, in order to become enterprising and responsible citizens";
 - "To deploy creative and innovative educational practices in our programmes";
 - "To engage our students, as active participants in their learning experiences".
2. What purpose do your products and services serve? "Our moral purpose is to be the embodiment and custodian of our people's aspirations." "Our view is that our academic outcomes must be geared towards untangling complex questions that beset our society, empower our graduates by future proofing them, to be able to successfully negotiate with the rapidly changing world of work: and to make a tangible movement towards civic renewal."
3. Who comprise your targeted audience? "We provide an academic home for all our people, especially for those who are at the margins of society, rural and urban, by

maximising the access to higher education, in order to ameliorate our triple challenges of poverty, inequality and employability”.

4. Why should they prefer your brand? “As a leading university on the continent, we embrace and cultivate new practices that are a feature of our rapidly changing, technology-enabled and technology-driven world. Our adoption of innovative practices and new digital architectures will see us transcend traditional silos; and it will enable us to achieve and expand our strategic priorities.”
5. What promise and values do you offer? “We commit to developing our internal capacity to fulfil the obligations and the expectations of our internal and external stakeholders. We will invest in our people, so that they can find fulfilment in executing their tasks and upholding the highest service-delivery standards”.

Through corporate branding, consumers take a deeper look into the company’s brand by assessing the nature of the corporation and its product offerings (De Chernatony, 1999). The various elements found in creating a favourable image in the minds of customers are discussed next.

3.4 Brand and Corporate Identity

Debara (2018) defines brand identity as the collection of various elements that organisations use to create a favourable image in the minds of consumers. Debara (2018) further adds to this by saying that brand identity is different from branding and brand image, even though these terms are used interchangeably. Branding, as mentioned earlier, involves the marketing practices that shape the brand; while brand image is the current view of the customers on a brand. According to Lake (2019), brand identity involves the product, company, service or a person, name, logo or tagline.

The message that consumers receive from the product, person, logo or tagline is the brand-identity message with which the consumer will connect. The logo of TUT, the purpose, use of colour and the various elements are explained below.



Figure 3. The Tshwane University of Technology Logo and tagline (adapted from TUT, 2020)

The Tshwane University of Technology's brand identity represents the following elements:

1. It symbolises the development of knowledge and skills in the higher education context.
2. It captures the diversity of the institution's stakeholders – the staff, the students and the other role-players.
3. It represents the location and cultural heritage of the University, while appealing to both local and international markets. The brand identity is not a literal graphic. What can be seen in the brand identity is the image of a person – perhaps a student, in graphic idiom, reading from a book.

The book is multi-layered and multi-faceted, in order to indicate the depth of study and the range of qualifications offered, as well as the coming together of a diverse group of people that form TUT.



The red triptych, represents the three institutions from which the University originates, forming a knowledge-based institution.



The core elements of TUT are to educate, to do research and development, and to serve the community at large.

The blue ribbon, encircling the bottom half of the logo, represents the nourishing environment for students to develop and grow – hence, the learner moving up and out of the circle to become a well-rounded individual.



The brand identity also reflects TUT as a source of knowledge and skills to its stakeholder communities. It provides a border around the logo in line with the institution's obligation to protect its students and to prepare them for entry to the world of work. The use of red, blue and gold and the variety of shapes in the design show the multicultural aspect of the University and the community itself. The focus is on the individual, in line with the institution's motto, "We empower people".

Figure 4. The meaning behind the TUT logo (Adapted from TUT, 2020)

Patel (2019) differentiates between brand identity and corporate identity by mentioning that corporate identity involves the internal activities that shape perception; while brand identity is how an organisation wishes to be perceived by its customers.

Cornelissen and Elving (2003) stated that corporate identity refers to a set of intrinsic characteristics, such as culture, strategy and core competencies that give an organization its reliability and consistency. The TUT offers industry-related qualifications that have been developed, together with the help of industry members that serve on the advisory board of a department. These industry members assist the department in curriculum development issues that are in line with the industrial demands.

The Department of Higher Education and Training (DHET) provides funding to universities to improve the students' success rate in higher education.

Teaching development and foundation programme grants have been allocated to universities, such as TUT, in order to improve the student success rates. Currently, the university employs over 850 lecturers, located across a range of disciplines within the seven

faculties. The TUT talent-management strategy assists with these processes, in order to attract, retain, develop and reward staff involved in teaching, learning and research. This management tool ensures that the lecturers employed at TUT remain at the cutting edge of their disciplines.

The brand and corporate identity of a university communicate what the brand stand for, what the values are, and how the university communicates its offerings to the potential and current students. How consumers feel when they interact with the brand all form part of the identity of the brand. Essentially, the brand and corporate identity comprise the personality of the organisation; and they serve as a promise to the consumers (Wheeler, 2020).

3.5 Brand Personality

Personality, according to the American Psychological Association (2020), refers to the individual traits and differences between people and their patterns of thinking, behaving and feeling. Aaker (1997) argued that brand personality is a set of human characteristics associated with a brand. In contrast to the American Psychological Association (2020), Aaker (1997) defines personality in terms of characteristics, instead of traits. Klopper and North (2011) state that “the personality of a brand emerges, as the vision and purpose of the brand that are uncovered and defined”.

With that said, brand personality, is a framework that organisations use to shape the way consumers feel about their product offerings, service and mission statement. It is a set of human characteristics assigned to the brand, to which consumers can relate (Traver, 2020). Geuens, Weijters and De Wulf (2009) argue that humans experience no problems in assigning human characteristics to products or brands, in order to personify and build a relationship with these aspects.

Additionally, Austin, Siguaw and Mattila (2003) found that by selecting a brand with the right personality characteristics assists the consumer with the development of a visible presentation of their ideal self. Austin et al. (2003) further state that in the post-modern era, some scholars have criticised research for the conceptualisation of products and the role and symbolic meaning thereof. Milas and Mlačić (2007) agree with Austin et al. (2003); and they mention that the concept of brand personality has been researched more widely; and they found that the two main areas of research, involve the link between brand characteristics and human personality.

Geuens et al. (2009) stated that Aaker (1997) is responsible for the majority of research on brand personality to date. Aaker (1997) developed a 44-item Brand Personality Scale that encompasses five broad dimensions, namely: Excitement, Sincerity, Competence, Ruggedness and Sophistication. The Aaker (1997) scale has served as a brand personality measure in many research studies. These dimensions are discussed in the following section.

3.5.1 Aaker's five broad dimensions of brand personality

As mentioned previously, in order to distinguish a brand from others, it is important to treat it as if it were a human with specific characteristics. If a brand has a distinct personality, it will come alive in the minds of the consumers (Thomas & Sekar, 2008). Siguaw, Mattila and Austin (1999) found that a well-established brand personality can increase loyalty, preference and the usage of a product and/or a service. Therefore, Siguaw et al. (1999) further explained that the personality of a brand needs to be distinctive, reliable and desirable in its communication efforts. Furthermore, consumers are more likely to purchase a brand if its personality is similar to their own.

There are five main types of brand personalities that have been developed by Aaker (1997) with common human traits, used in describing themselves and others (Traver, 2020).

Table 1. Aaker's five Dimensions of Brand personality

Dimension	Personality Trait
Excitement	Carefree, spirited, creative, youthful, daring, imaginative, up to date, independent, contemporary, innovative, forward thinking, new generation, motivated, enthusiastic, excited, sociable.
Sincerity	Kindness, thoughtfulness, values: domestic, honest, genuine, cheerful, real, sincere, down to earth, wholesome, original, traditional, norms, caring, ethical, fair, warmth, gratitude, reliable, brave, generous, loyal, considerate.
Ruggedness	Rough, tough, outdoorsy, active, adventurous, and athletic.
Competence	Successful, accomplished, influential, leadership-oriented, reliable, responsible, intelligent, dependable, efficient, expert, effective, reasonable, competent, potential, strength, talent, artistic, persistent, practical.

Sophistication	Elegant, prestigious, pretentious, glamorous, charming, romantic, elite, professional, influential, empowered, entrepreneurial, ambitious, confident, determined.
-----------------------	---

For the purpose of this study, the above-mentioned dimensions and personality traits (words) were used in the analysis of the strategic plans of the selected universities.

Brand image, also known as corporate image, are discussed in the following section.

3.6 Brand Image

Dobni and Zinkhan (1990) found that the term brand image has been an important element in consumer behaviour and marketing, ever since the 1950s. Brand image, according to Dobni and Zinkhan (1990), is a subjective and perceptual phenomenon of a brand held in the mind of a consumer. Martinez and De Chernatony (2004) agreed with Dobni and Zinkhan (1990); and they add that brand image includes the perceptions that consumers have of a brand through their associations that link the brand with the consumer's memory. As soon as the brand image is processed in the mind and memory of the consumer, a relationship is created between these two.

Similarly, brand image, which is also known as corporate image, consists of feelings, knowledge, ideals and beliefs related to a specific organisation, as a result of its activities, products or services. When consumers come in contact with a brand, a mental picture of the company and or brand is formulated (Meenaghan, 1995). Driesener and Romaniuk (2006) found that the perceptions consumers hold about a brand are vital, seeing that it indicates that the brands are advertising; and this communicates their effectiveness.

Spacey (2020) identified the following elements that are needed in creating a successful brand image:

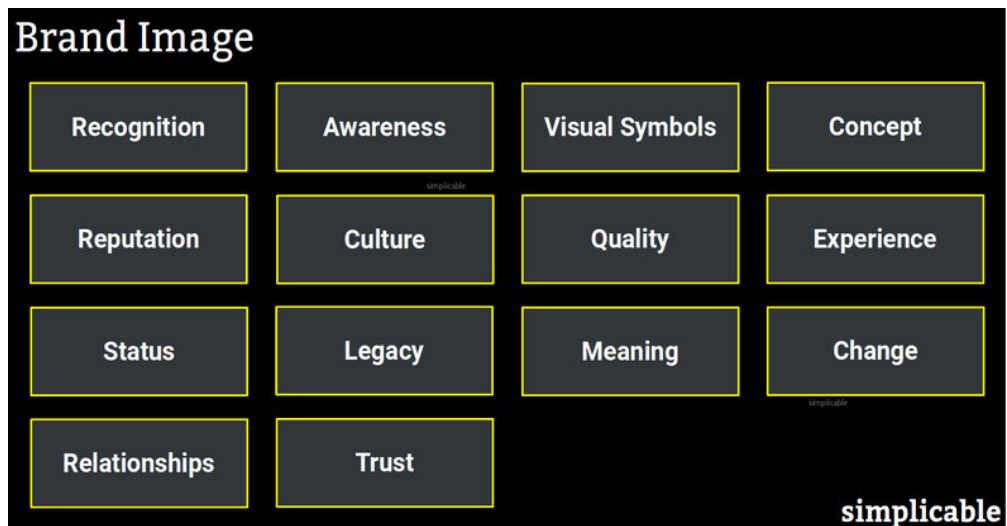


Figure 5. Brand Image Elements (Adapted from: Spacey, 2020)

The meaning of the various elements, as indicated in Figure 3, are discussed below:

Recognition – The ability to recognise the company’s brand by its symbol or name.

Awareness – The ability to recall the basic attributes of the brand.

Visual Symbols – The ability to recognize the company’s symbol or packaging.

Concept – The ability to create an effective brand slogan.

Reputation – Consumers’ perceptions, opinions and feelings towards the brand.

Culture – The corporate culture, norms and values associated with the brand.

Quality – How well the product and brand meet the needs of the consumers.

Experience – The positive and/or the negative experience of the brand.

Status – The perceived social status of the brand.

Legacy – The history of the origin of the brand.

Meaning – The mission, vision and meaning behind the brand.

Change – The brand’s adaptability to trends and change.

Relationship – The relationship between the various stakeholders involved with the brand.

Trust – The sense that the brand is trustworthy and authentic.

These brand-image elements were used to identify how the universities portrayed their brands in their strategic plans and on their websites. The purpose of the analysis was to establish to what level these elements were visible and communicated, seeing that a brand image communicates what an organisation or company stands for. For the purpose of this study, only the website of the TUT will be discussed.

3.7 The importance of websites

The increase of competitors in the market place has led to more companies and organisations taking advantage of promoting their products and services by going online. Therefore, it is vital to understand why users prefer, visit or use one website rather than another (Rosen & Purinton, 2004). Snell (2009) found that positive user experiences are the key elements of a good website. Regardless of whether the website in question is a blog, an information website for a product or a service, an e-commerce, or a government website, communication in an effective manner is vitally important.

Additionally, Snell (2009) added that the purchasing habits on the Web are similar to the habits that consumers would practice in a physical store. Therefore, the same principles, as those found in a store, need to be applied online. Visitors to a website, glance and scan the page, in the same manner as when they enter a physical store; then they click on the link that resembles that for which they are looking.

Zhang and Von Dran (2000) identified two types of Website design factors that influence the viability of a website. The first factor, namely the Hygiene factors, make a website functional and serviceable; and if they are not visible, this can lead to dissatisfaction amongst the potential users. On the other hand, motivational factors, include those elements that add value to the website that leads to user satisfaction.

Rosen and Purinton (2004) found that ease-of-use, high-quality content, the speed and the regular updating of the website are some of those factors that influence repeat visits to the website. The online experience, according to Rosen and Purinton (2004), is vital in ensuring that repeat visits will follow in the future.

According to Demangeot and Broderick (2010) researchers Rosen and Purinton (2004) developed the Website-Preference Scale (WSPS), based on the preference framework of environmental psychologists Rachel Kaplan and Stephen Kaplan (1998). The purpose of

the WSPS scale is to identify the dimensions of effective website design that may lead to the repeat visits to a website.

Kaplan and Kaplan (1998) provided an understanding of how companies can facilitate an interactive experience via a cognitive environment. These researchers are of the opinion that environments provide information through icons, signs, with or without words that influence preferences for certain landscapes. Rosen and Purinton (2004) explained that the environmental psychology on which the WSPS scale is based on, shows that consumers want to get involved with their sites; and that it is indeed possible for consumers to become involved.

The preference framework, according to Demangeot and Broderick (2010), suggests that consumers perceive a landscape on the basis of their informational needs, namely concurrently, the need to understand an environment and the need to investigate it. Furthermore, consumers experience immediate attributes (coherence, complexity) and inferred attributes (legibility and mystery) that provide signs as to what can be expected from the environment, once entered (Demangeot & Broderick, 2010).

With regard to the application of the WSPS scale and preference framework in an online environment, the fore-mentioned attributes are those that enable visitors to access the site, and to grasp the content presented to them. For the purpose of this study, coherence (page clarity), complexity (visual impact) and the marketer informativeness of the various university websites were investigated.

Table 2: the Kaplans' Informational Model of Landscape Preference (Adapted from Demangeot and Broderick, 2010).

Page clarity	Coherence	SEO performance, HTML Header, body content, keyword consistency, Technology results, Site design, functionality, convenience, ease-of-use, space, function, security results, spatial layout, usability, functionality, efficiency, system design quality, technical adequacy, usability, navigation, common factors, organization, ease-of-understanding, intuitive operation, appearance, utilitarian performance, high task-relevant cues, coherence, legibility.
Visual impact	Complexity	Sensation, contact interactivity, character, ambient conditions, sign, symbols and artefacts, enjoyment, playfulness, atmospheric, human factors, aesthetic,

		appearance, visual appeal, innovativeness, flow, entertainment, hedonic performance, experiential, low task-relevant cues, complexity, mystery, diversity.
Marketer informativeness		Social results, product information, product attributes, performance results, links, indexing, rankings, description choice, informativeness, information accuracy, service quality, content quality, information fit to task, support of product research and evaluation.

In conclusion, Pym (2011) found that a webpage comprises textual units in the title bar and in the web browser, menus, hyperlinks, descriptors, images, graphics, sound and audio-visual files. Pym (2011) further explained the key words; and a description of the website is key in assisting visitors in finding the required website in search engines like Google. With that said, various elements of design and graphics are used in websites to convey a message to the users.

The use of images, animation, audio, space, colour and the number of words per line, all contribute to the user-friendliness and usefulness of the website (Rosen & Purinton, 2004).

For the purpose of this study, the following elements found on the websites of the selected universities were analysed: Search-engine optimization (SEO) results, HTML Header, Body content, keywords, links, indexing, rankings, usability, performance of the website, social results, security and the overall technology used on the website. The SE-Optimizer, SEO auditing and reporting tool were used in the analysis of the selected websites. For the purpose of this study, the results of TUT only, will be discussed.

The rapid evolvement of e-businesses has led to the shift of many traditional offline consumers in becoming online consumers. With that said, Chen (2009) argued that the need for theoretical research of online consumer behaviour is needed, in order to guide companies in improving their online brand identity, brand personality, brand image and the overall landscape preference.

4. THE RESEARCH METHODOLOGY

Brand management is one of the key elements found in the marketing strategy of companies and organisations. However, brand management receives little attention in the daily run of affairs in higher education. A strategic plan is an important component of an institutions' communication strategy; and therefore, one has to be concerned with how the brand personality is being portrayed in the plan. A website is a competitive tool used to position a brand against those of the competitors; and therefore, it is vital to communicate the right brand personality via the strategic plans found on the website.

Brand personality and brand identity in higher education have emerged as important issues for management at universities (Curtis, Abratt & Minor, 2009; Foroudi, Dinnie, Kitchen, Melewar, & Foroudi, 2017; Melewar & Akel, 2005; Melewar, Foroudi, Dinnie, & Nguyen, 2018; Wæraas, & Solbakk, 2009). Nevertheless, only a few studies have been published on how institutions of higher education communicate their brand personality in their strategic plans and on their websites.

Opoku, Abratt and Pitt (2006) found that research on the growing importance of online communication, as a vital part of corporate identity and brand personality in higher education, has largely been neglected; and consequently, there is a need for further investigation. Additionally, prominent scholars, like Kaushal and Ali (2019) ; Rauschnabel, Krey, Babin and Ivens (2016) ; Rutter, Lettice and Nadeau (2017) have found that studies on corporate identity and brand personality have been limited to products and services; while little attention has been devoted to online brand communication in higher education.

Various content-analysis studies on how the websites of commercial companies communicate their brand personalities have been identified; however, the examining of the strategic plans found on educational websites are somewhat limited (Kahan & McKenzie, 2020; Opoku, Abratt & Pitt, 2006; Peng, Wu, Atkins, Zwarenstein, Zhu, Zhan, Zhang, Ran & Yan, 2014). These studies have merely considered an international perspective on brand personality and identity in education. Furthermore, no studies on how brand personality is portrayed in the strategic plans of South African universities could be found. It would, therefore, be valuable to analyse the content of these strategic plans.

4.1 Research Question, Problem and Objectives

During a group discussion in one of the TUT master-study groups in Educational management sessions, the following questions were asked: “How does TUT communicate its brand?” and “how effectively have the website attributes displayed” by the participants of the course evaluated the TUT strategic plan, as well as the TUT website? Have they found that various elements are unclear or even possibly non-existent? To answer these questions, the researcher conducted a content analysis of the strategic plans of four Universities of Technology. The website of the Tshwane University of Technology was also analysed in this study.

The primary objective of this study was:

- To explore whether universities communicate their brand personality in a clear and distinctive manner.

The secondary objectives of this study were:

- To determine whether all the university brands have brand personalities.
- To identify the underlying dimensions of the universities’ personality within their strategic plans.
- To measure the effectiveness of the website attributes of the Tshwane University of Technology.

By understanding the importance of corporate identity and brand personality, as well as how the website attributes are portrayed, could assist the management of Universities in the formulation of marketing strategies that would facilitate the communication efforts targeted at potential and current students. Through strategic differentiation, universities can enhance and promote loyalty amongst their current and potential students.

4.2 The Research design

The guiding structure for the collection and analysis of data is known as the research design. The research objectives set out for this study were met through the analysis of the strategic plans of UOTs. A content analysis, as explained by Churchill (2013), is found by the analyses of text, images and other significant sources, for the purpose of making valid

conclusions to the context of their usage. For the purpose of this study, the text, images and other sources found in the strategic plans of the selected universities were analysed. The attributes found on the website of TUT were also analysed accordingly.

Content analysis is a well-recognised research method used in numerous publications related to education (Chun & Davies, 2001; Davis, Wolniak, George, & Nelson, 2019; Kahan and McKenzie ,2020; Marques, Lin, Starling, Daquiz, Goldfarb, Garcia & Constantine, 2015; Ostry, Young & Hughes, 2008; Peng, Wu, Atkins, Zwarenstein, Zhu, Zhan, Zhang, Ran, & Yan, 2014; Yoon, & Schultz, 2017; Xiao & Zhao, 2009), and Higher education (Alnodel, Elobaid, Elawady & Alhdaif, 2018; Hasim, Hashim, Ariff, Sapeciay, & Abdullah, 2018; Opaleye, Sanusi, Ukpai, & Okunoye, 2018; Opoku, Abratt & Pitt, 2006).

4.3 Sampling

The population under investigation includes institutions of higher education in South Africa. The list of universities, according to the Department of Higher Education and Training (DHET), was used as the sample frame of the population, from which the sample was selected.

Table 3. List of Universities in South Africa (Adapted from the Department of Higher Education and Training (DHET) 2020).

Universities in South Africa
University of Cape Town
University of Fort Hare
University of the Free State
University of Johannesburg
University of KwaZulu-Natal
University of Limpopo
University of Mpumalanga
Nelson Mandela University
North West University
University of Pretoria
Rhodes University
Sefako Makgatho Health Sciences University
Sol Plaatjies University
University of South Africa
University of Stellenbosch
Walter Sisulu University for Technology
University of Venda
University of the Western Cape
University of the Witwatersrand
University of Zululand

Universities of Technology
Cape Peninsula
Central University of Technology Free State
Durban Institute of Technology
Mangosuthu University of Technology
Tshwane University of Technology
Vaal University of Technology

Purposive sampling was used in this study, whereby specific inclusion criteria were used, in order to include certain cases or elements in a sample. Purposive sampling, as a non-probability sampling method, includes a variety of sampling units on the basis of judgement (Schreuder, Gregoire, & Wryer, 2001).

Due to the difficulty of ranking multifaceted educational institutions, there is a growing number of opposing international university-ranking systems, each with its own criteria. The four most-used systems are: The Centre for World University rankings (CWUR), Times Higher Education World University Rankings, the Academic Ranking of World Universities (ARWU) and the QS World University Rankings (Lego connect; 2020). For the purpose of this study, the Times Higher Education World University Rankings were used to establish the rankings of the South African universities.

The two criteria used to select the two universities of Technology were based on the ranking of the particular university; and on whether the university has a strategic plan on their websites. Stemler (2000) indicates that the data for content analysis are divided into units of sampling, data collection units, and analysis units. Sampling units, according to Fink (2003), comprise the group of elements that meet the requirements for being included in the sample. According to Times Higher Education World University Rankings (2020), the following universities are rated as the top four universities in South Africa. The sampling units for the proposed study are to be found in Table 4.

Table 4. Top four universities in South Africa for 2020: South Africa
(Adapted from Times Higher Education World University Rankings, 2020).

Country Rank	Institution	World Rank
Universities in South Africa		
1	University of Cape Town	220
2	University of the Witwatersrand	403
3	Stellenbosch University	456
4	University of Pretoria	561-570

Universities of Technology		
5	Durban University of Technology	401-500
10	Tshwane University of Technology	1044
12	Cape Peninsula University of Technology	1855
16	Central University of Technology	3659

According to White and Marsh (2006), the data-collection units are the elements used to measure the variables in the content analysis. The strategic plans of the four selected UOTs formed part of the data-collection units of this study. For the purpose of this study, the Durban University of Technology (ranked Nr 1) and the Tshwane University of Technology (ranked Nr 2), the Cape Peninsula University of Technology (ranked Nr 3), the Central University of Technology (ranked Nr 4) were selected in the analysis. The reason for these institutions being selected was that these universities are direct competitors in the market amongst UOTs.

The elements for which the data are analysed and reported on, are known as the units of analysis (Chi, 1997). The units of analysis for this study consist of Aaker's five broad dimensions of brand personality.

The findings on the visibility of the brand-personality dimensions within the four strategic plans were documented, in order to determine how the dimensions were incorporated.

4.4 The Data collection

Secondary data, in the form of the websites of the selected universities were used. Access to the strategic plans of the universities was freely available; and no permission was needed to collect the necessary data for this study. With regard to Aaker's brand personality elements, the researcher used Atlas.ti to conduct a content analysis of the selected universities' websites. The dimensions used within the Aaker model had to be adapted for the educational sector.

4.5 Measurement instrument

Qualitative content analysis requires that an objective coding scheme be applied to the data (Burla, Knierim, Barth, Liewald, Duetz & Abel, 2008). The published literature on Aaker's brand-personality elements will be used as the basis to develop the categories for the coding scheme.

The following steps were used in the structuring of the measurement instrument for this study:

1. The Content to be analysed

- Based on the research question, the medium that was used included the websites of the selected universities.
- The criteria for inclusion were the strategic plans found on the websites of the selected universities.
- The parameters used for this study were the most recent strategic plans of the selected universities for the period 2020-2025.

2. Defining the units, the categories of analysis and the coding rules

Although Aaker's five-dimensional scale relies on the consumers' perceptions, as the input on how the personality of a brand is being communicated, the researcher used what was communicated in the strategic plans of selected universities in South Africa, as the input. The researcher did not measure what others think of the brand personality of the selected universities, but rather how these universities portray themselves in their strategic plans. The strategic plans were found on the websites of the selected universities.

- The **unit(s) of meaning** that were coded. The frequency of individual words, according to Aaker's five dimensions of brand personality were recorded. (See table below.)
- Based on the research question, the **set of categories** used for the coding comprised: excitement, sincerity, ruggedness, competence and sophistication.
- The coding rules identified for this study are based on Aaker's five dimensions. The relevant words or personality traits are linked to a specific category.
- As mentioned earlier, the Aaker scale had to be adapted; and therefore, the following brand personality (words/synonyms) were identified and added, together with the Aaker personality traits.

Table 5. Brand-Personality Dimensions

Dimension	Personality Trait
Excitement	Carefree, spirited, creative, youthful, daring, imaginative, up-to-date, independent, contemporary, innovative, forward-thinking, new generation, motivated, enthusiastic, excited, sociable.
<i>New personality trait</i>	<i>Purposeful, creative, diverse, independent flexible, vibrant independent,</i>
Sincerity	Kindness, thoughtfulness, values, domestic, honest, genuine, cheerful, real, sincere, down-to-earth, wholesome, original, traditional, norms, caring, ethical, fair, warmth, gratitude, reliable, brave, generous, loyal, thoughtful.
<i>New personality trait</i>	<i>Moral, care, compassion, integrity, accountable, religious, respect, ethical responsive, considered , traditional, nurture, traditional, ethical, reliable,</i>
Ruggedness	Rough, tough, outdoorsy, active, adventurous, and athletic.
<i>New personality trait</i>	<i>Bold, active, strong, active resilient, healthy, well-being strength, safe</i>
Competence	Successful, accomplished, influential, leadership, reliable, responsible, intelligent, dependable, efficient, expert, effective, reasonable, competent, potential, strength, talent, artistic, persistent, practical.
<i>New personality trait</i>	<i>Productive, committed, equity excellent innovative, responsible, adaptable, consistent, critical knowledgeable, entrepreneurial skilled, inspiring, efficient, talented, artistic, persistent, practical c, talented</i>
Sophistication	Elegant, prestigious, glamorous, charming, romantic, elite, professional, influential, empowered, entrepreneurial, ambitious, confident, determined.
<i>New personality trait</i>	<i>Aspiration intellectual, empowered, reputable sophisticated , qualified influential professional, influential, successful , accomplished, determined, motivated, Expert, prestigious</i>

4. Coding the text according to the rules

The strategic plans of the selected universities were used, whereby the relevant personality traits (data) in the appropriate categories were recorded by means of ATLAS.ti. This software program assisted the researcher in speeding up the process by counting and categorising the relevant personality traits found within the strategic plans of the selected universities. However, the Aaker model had to be adapted in accordance with education. Therefore, more education-related personality traits were identified within the strategic plans of the selected universities, in order to compile a new set of traits that could be used in the analysis.

5. Analysing the results and drawing conclusions

After completion of the coding, the collected data were examined, in order to identify patterns and to draw conclusions in response to the research questions. Through statistical analysis, correlations and trends were identified between the strategic plans of the selected universities. The data analysis, the findings, the discussion and the interpretations of the results are discussed next.

4.6 The Data analysis

The data analysis and the findings of the content analysis are discussed in the next section.

4.6.1 Word clouds

Word clouds of the top four Universities of Technology were formed via the statistical software ATLAS.ti. The purpose of the word clouds is to visually display the text data. The most prominent, or the most frequently used words in a body of text can be highlighted by means of textual size.

Table 6. Top four UOTs in South Africa

Universities of Technology	
5	Durban University of Technology
10	Tshwane University of Technology
12	Cape Peninsula University of Technology
16	Central University of Technology

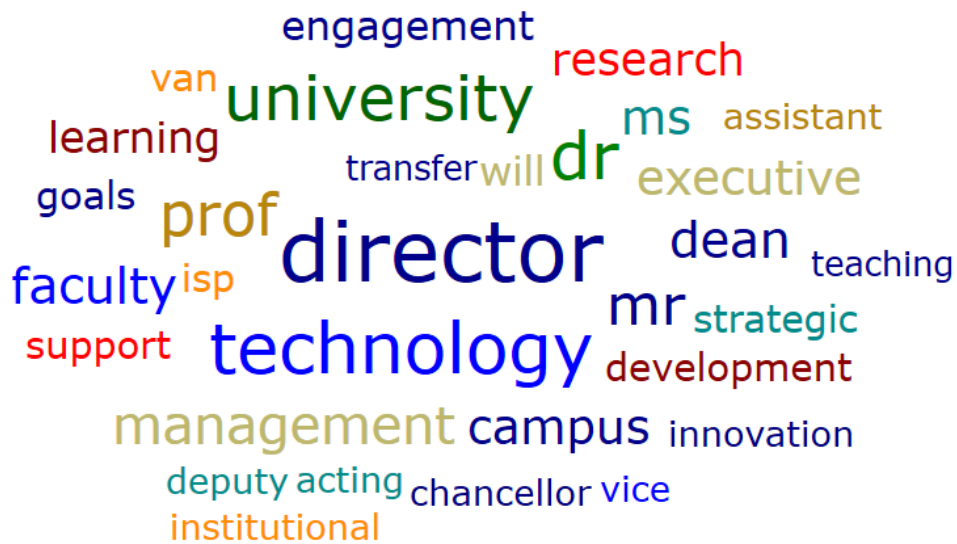
4.6.1.1 The findings of the Universities of Technology

The findings of the selected UOTs can be illustrated by means of word clouds. The bigger the word, the more frequently it appears within the strategic document of the university. This clearly illustrates the focus area of what the UOT deems to be important.

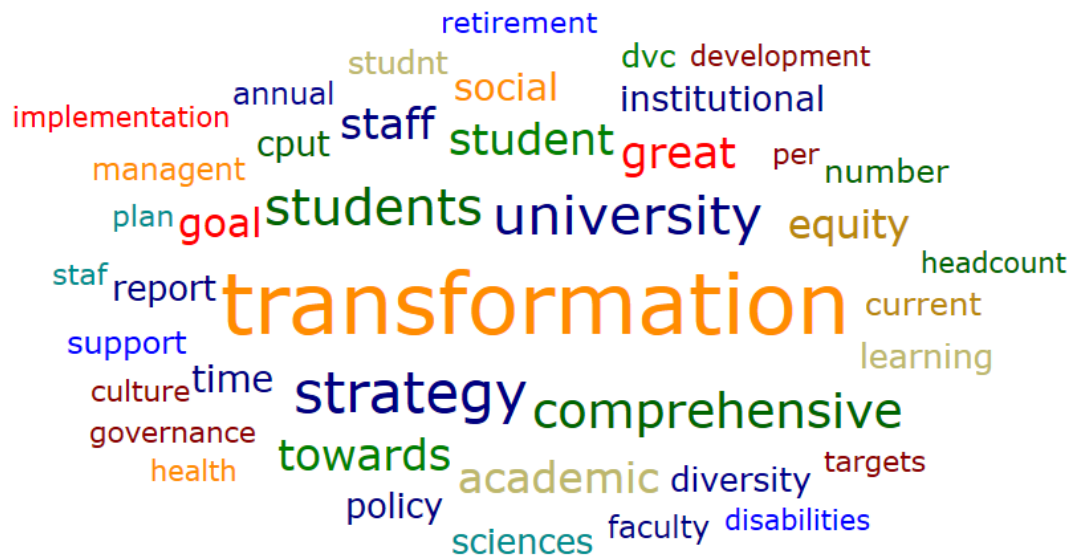
4.6.1.1.1 Durban University of Technology



4.6.1.1.2 Tshwane University of Technology



4.6.1.1.3 Cape Peninsula University of Technology



4.6.1.1.4 Central University of Technology



From the above-mentioned findings, it is clear that the strategic plan of the Tshwane University of Technology does not reflect similar key words, such as research, strategic, students and transformational, found within the strategic plans of the other selected Universities of Technology. The main key words found within the TUT's strategic plan were directly followed by the word technology; and thereafter, the word university.

4.6.2 Aaker's five-dimensional scale (Brand Personality)

A quantitative content analysis was conducted to accurately and systematically analyse the strategic plans of the selected universities, according to Aaker's five-dimensional scale. Content analysis is the "systematic, objective, quantitative analysis of message characteristics" (Spurgin & Wildemuth, 2009). This study analysed the various brand personality traits used within the strategic plans of the four Universities of Technology in South Africa.

According to Riffe, Lacy, Fico and Watson (2019), quantitative-content analysis involves the measurement and /r the counting of key constructs or categories. For the purpose of this study, Aaker's five-dimensional scale was used in the analysis of the various strategic plans. The researcher relied on the personality traits (words/synonyms); because the meaning of computer-supported content analysis focuses on the word, as the unit of analysis, instead of the sentences found within the text.

The number of times the particular personality trait (word) appeared within the document was counted and measured. Words were used as the units of analysis, instead of phrases or quotes, due to the large amount of text required to manage the strategic plans. The software program ATLAS.ti has the ability to process large quantities of data and text in a reliable manner; therefore, the researcher utilised this program in the analysis. As mentioned, the identified "word-personality traits," as identified by Aaker's five-brand personality dimensions were adapted and used in the data collection. Some of the "words" had to be replaced by synonyms; or they were removed; since they were not applicable to education and management.

Descriptive statistics was used to make the overall conclusions on the personality traits found and identified within the data. Certain words were with little to no semantic value, such as pronouns, adjectives and verbs; and these were consequently excluded.

The textual information of the strategic plans of the four selected universities was converted into analysable format and imported into the computer-aided program ATLAS.ti. Thereafter, the researcher performed a content analysis of the four strategic plans, in order to determine how brand personality was presented within these documents.

4.6.2.1 The Findings

The following key words were used in the analysis of the four strategic plans. For the purpose of this study, the results and the findings for the four Universities of Technology will be explained. The words/personality traits found in Aaker's five dimensions of brand personality had to be adapted for educational purposes. Synonyms of the various key words in Aaker's model were identified by means of the Atlas.ti program.

Table 7. The Atlas.ti Brand personality search

Text Search: Define Query
Search for combinations of words and compounds

Selected Documents (8)

- D1 Strategic_Plan2020-2...
- D2 DUT-strategic-plan-...
- D3 strategic_plan_UP
- D4 StrategicPlan_2020 U...
- D5 Strategic-Plan-2016-...
- D6 transformation_strat...
- D7 Vision-2040-Strategi...
- D8 Wits Vision 2022 Stra...

Find sentences that contain:

- purposeful AND morale AND care AND compassion AND creative AND aspiration AND intellectual AND empower AND active AND productive AND committed AND integrity AND care AND diverse AND equity AND excellence AND accountable AND innovative AND responsible AND strong AND resilient AND adaptable AND consistent AND religious AND healthy AND well-being AND respect AND bold AND reputable AND

ambition AND independent AND critical AND sophisticated AND strength AND knowledgeable AND entrepreneurial AND qualified AND active AND flexible AND skilled AND ethical AND responsive AND considered AND safe AND nurture AND inspire AND influential AND vibrant AND status AND social AND leader AND reliable AND traditional AND successful AND accomplished AND reliable AND efficient AND expert AND reasonable AND competent AND talent AND artistic AND persistent AND practical AND prestige AND glamour AND romantic AND elite AND professional AND determined AND motivated

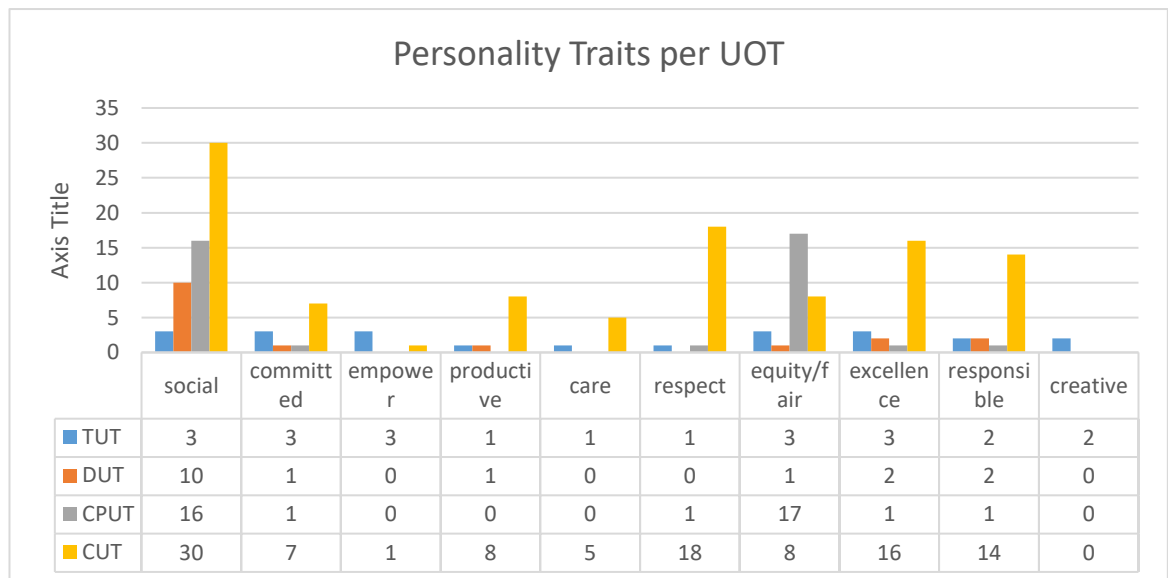
Annexure 1, serves as an example of how the software program Atlas.ti identified the selected word within a given text. The software has alternative options, for example per paragraph, or according to the words only. However, the researcher opted for the identification of the listed words per sentence found within the given strategic plans.

An ATLAS.ti word list was also generated, in order to produce the word frequency counts within the strategic documents. The purpose of the word count is to give an overview of the brand personality, and the words used, and also to identify the patterns across the groups of participants (Universities). The length and number of occurrences (count) are highlighted per word found within the document. The Tshwane University of Technology word count was used, as an example for the explanation of the method used (See Annexure 2).

4.6.2.2 The Findings of UOTs with regard to Aaker’s five dimensions

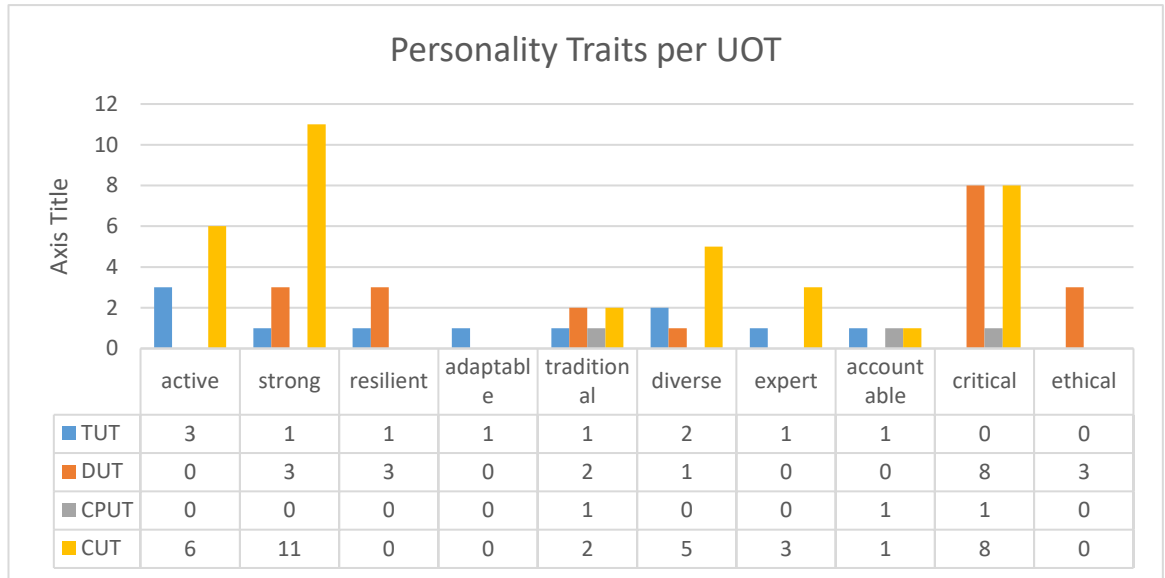
The findings related to the four selected Universities of Technology (UOT’) will be explained by means of graphs.

Figure 6



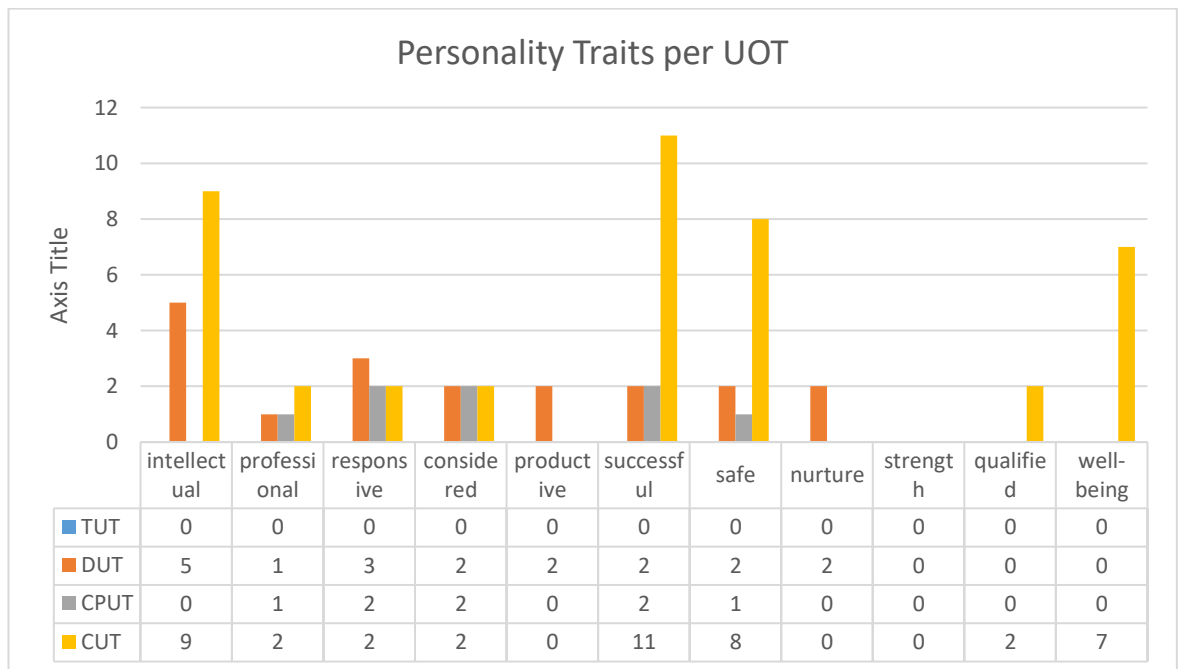
The personality trait “social” was used most by CUT (30) followed by “respect” (18) and “excellence” (16). The reason for the high word count, is due to the length of the strategic plan of the CUT. The above-mentioned personality traits identified within the TUT strategic plan are low in relation to those of the other UOTs.

Figure 7



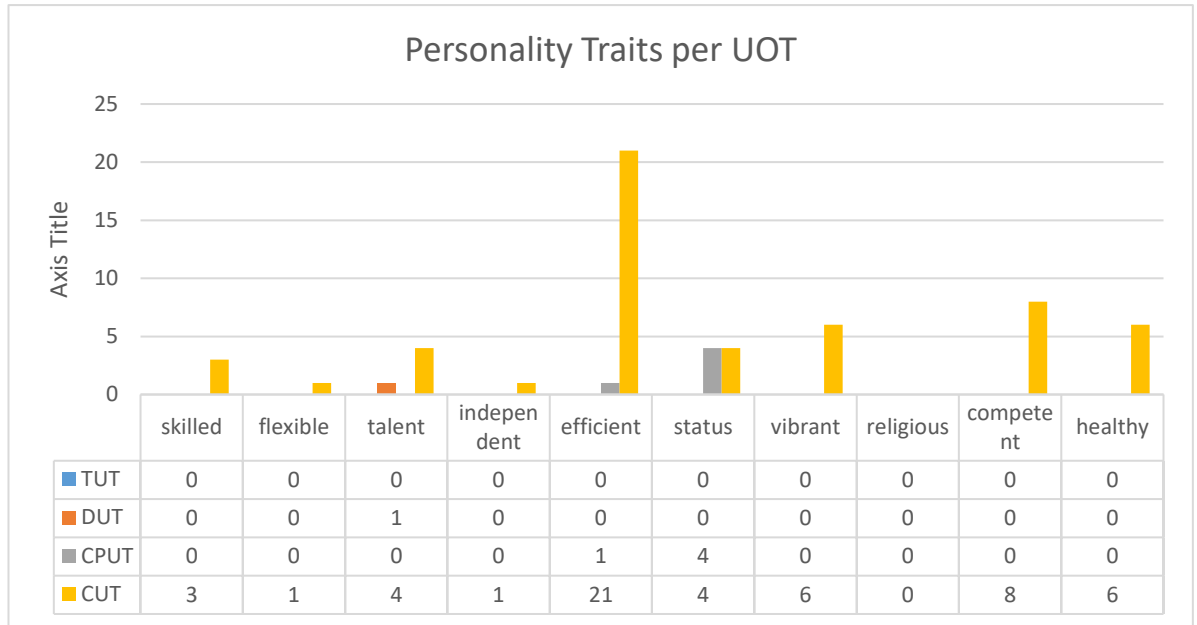
The personality trait “strong” featured eleven times within the strategic plan of the CUT, and it appeared only once within the TUT strategic plan.

Figure 8



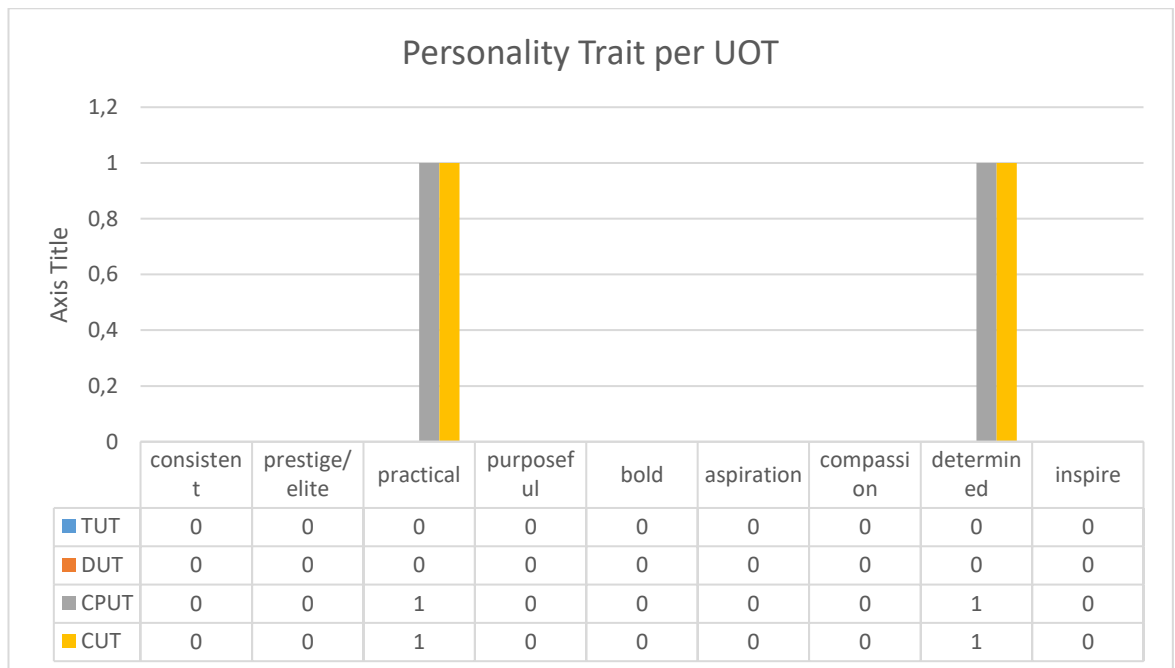
Other prominent personality traits identified within the strategic plans of the UOTs included “successful,” followed by “intellectual” and “well-being”. None of these were identified within the TUT strategic plan.

Figure 9



The personality trait “efficient” was identified, as being the most prominent amongst the traits in this Figure. It appeared twenty-one (21) times in the strategic plan of CUT; and only once in the strategic plan of CPUT.

Figure 10



The final personality traits included words, like “consistent”, “practical” and “determined”. Amongst the UOTs, only CPUT and CUT used these traits within their strategic plans.

Table 8 shows a summary of all the brand personality traits that were used in the analysis of the four selected strategic plans.

Table 8. Summary Table of all the Brand personality traits

	Personality traits/words	TUT	DUT	CUT	CPUT
1	social	3	10	30	16
2	committed	3	1	7	1
3	empowered	3	0	1	0
4	productive	1	1	8	0
5	caring	1	0	5	0
6	Respectful	1	0	18	1
7	equity/fair	3	1	8	17
8	excellent	3	2	16	1
9	responsible	2	2	14	1
10	Creative	2	0	0	0
11	Active	3	0	6	0
12	Strong	1	3	11	0
13	Resilient	1	3	0	0
14	adaptable	1	0	0	0
15	traditional	1	2	2	1
16	Diverse	2	1	5	0
17	Expert	1	0	3	0
18	accountable	1	0	1	1
19	Critical	0	8	8	1
20	Ethical	0	3	0	0
21	intellectual	0	5	9	0
22	professional	0	1	2	1
23	responsive	0	3	2	2
24	considered	0	2	2	2
25	productive	0	2	0	0
26	successful	0	2	11	2
27	Safe	0	2	8	1
28	Nurtured	0	2	0	0
29	Strength	0	0	0	0
30	Qualified	0	0	2	0
31	well-being	0	0	7	0
32	Skilled	0	0	3	0
33	Flexible	0	0	1	0
34	Talented	0	1	4	0
35	independent	0	0	1	0
36	Efficient	0	0	21	1
37	Status	0	0	4	4
38	Vibrant	0	0	6	0
39	Religious	0	0	0	0

40	competent	0	0	8	0
41	Healthy	0	0	6	0
42	consistent	0	0	0	0
43	prestigious/elite	0	0	0	0
44	Practical	0	0	1	1
45	Purposeful	0	0	0	0
46	Bold	0	0	0	0
47	Aspiration	0	0	0	0
48	compassion	0	0	0	0
49	Determined	0	0	1	1
50	Inspired	0	0	0	0

Table 9 shows the top fourteen personality traits identified in the analysis. The personality trait of social, followed by equity and fair were placed at the top of the list.

Table 9. Top 14 personality traits used most in the four selected strategic plans.

	Personality Trait	TUT	DUT	CPUT	CUT	Total
1	social	3	10	16	30	59
2	equity/fair	3	1	17	8	29
3	efficient	0	0	1	21	22
4	excellent	3	2	1	16	22
5	respectful	1	0	1	18	20
6	responsible	2	2	1	14	19
7	critical	0	8	1	8	17
8	successful	0	2	2	11	15
9	strong	1	3	0	11	15
10	intellectual	0	5	0	9	14
11	committed	3	1	1	7	12
12	safe	0	2	1	8	11
13	productive	1	1	0	8	10
14	status	0	0	4	4	8

The cell counts in (Annexure 3) reveal the number of times a particular brand personality synonym/trait is associated with a particular UOT. The row and column subtotals in this table indicate the number of mentions received of a particular word/brand or personality trait within the strategic plans found on the websites of the UOTs, respectively. In this table, it also can be ascertained that the Central University of Technology contained the most words associated with brand-personality dimensions. It needs to be mentioned that the strategic plan of CUT was the most comprehensive plan of all the selected UOTs.

4.7. Sentiment Analysis

A Sentiment analysis, also known as opinion mining, was conducted, in order to determine the emotional tone behind the series of words found within the strategic plans of the UOTs. The purpose of a sentiment analysis is to provide an understanding of the emotions, attitudes and opinions articulated within the strategic plans of the UOTs. For the purpose of this study, a sentiment analysis of the strategic plan of the Tshwane University of Technology was conducted (See Annexure 4).

Table 10. The sentiment analysis determined that the TUT strategic plan has:

Neutral statements	7
Negative statements	19
Positive statements	37

The findings of the sentiment analysis indicated that the overall strategic plan of the Tshwane University of Technology seems to be positively interpreted when analysed. The sentiment analysis found 37 positive statements and 19 negative statements within the strategic plan of TUT.

4.8 Website Attributes Analysis

For the purpose of this study, the SEO auditing and reporting tool, SEOptimer, was used in the analysis of the website attributes of the Tshwane University of Technology. The following elements of Kaplans' Informational Model of Landscape Preference (2010) were used in the analysis of the website.

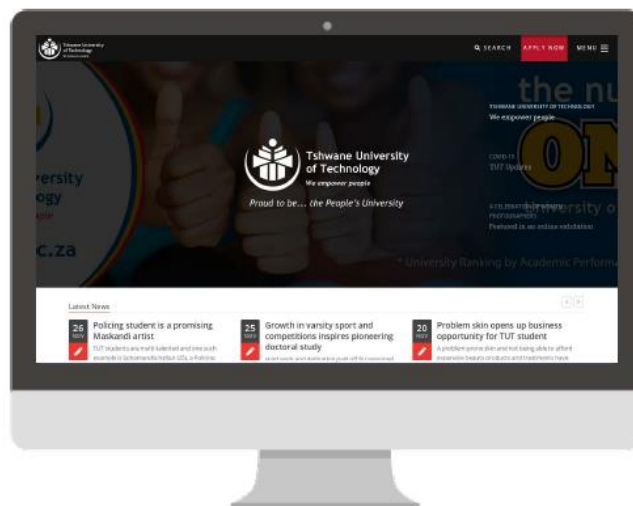
Table 11. Website Attributes Analysis

Website Attributes
Search engine optimization (SEO) results
HTML Header
Body content
Keywords
Links
Indexing
Rankings

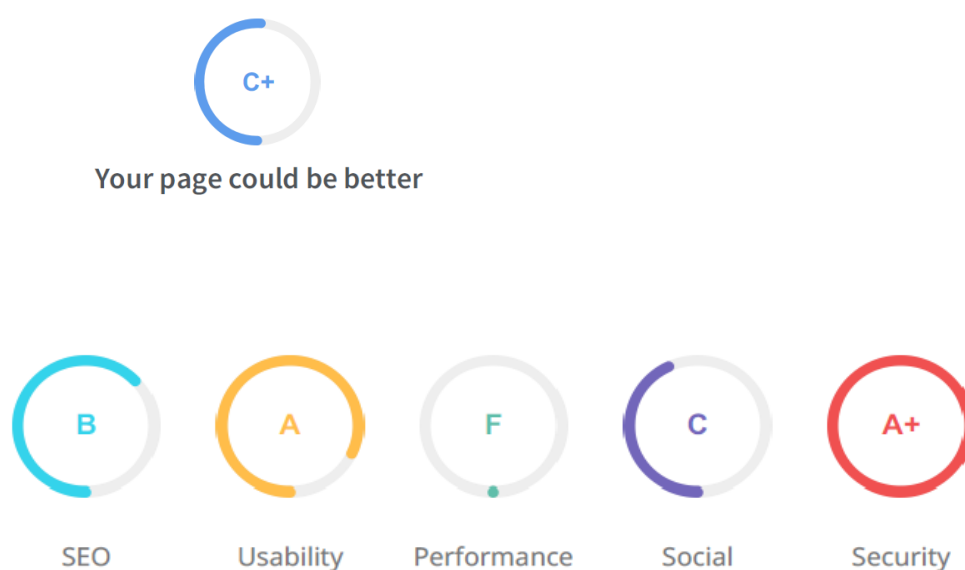
Usability
Performance of the website
Social results
Security
Overall technology used on the website

4.8.1 The Findings

For the purpose of this study, only the findings for the website of the Tshwane University of Technology are discussed. The findings for the remaining seven universities can be found in Appendix 2.



The content analysis rated the overall TUT website as a C+, thereby indicating that the webpage could be better.



Your SEO could be better

The TUT page has some level of optimization; but it could be improved further.

SEO optimization is important, in order to ensure that the page can maximize the ranking potential and drive traffic to your website from the search engines. TUT should ensure that their page fulfils the commonly recommended improvements outlined here, before moving on to more advanced SEO strategies.

HTML Header


Title Tag

The TUT webpage has a title tag of optimal length (between 10 and 70 characters). 

Tshwane University of Technology

Length : 32


Meta Description Tag

The TUT page appears to be missing a meta description tag. 

A meta description is important for search engines, in order to understand the content of the page; and it is often shown as the descriptive text blurb in the search results.

Body Content

Header Tags

The TUT page is making good use of header tags. 

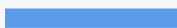







HTML header tags are an important way of signalling to the search engines the important content topics of the page, and subsequently the keywords for which it should rank.

Keyword Consistency

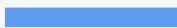

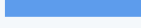

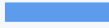



The TUT page's main keywords are not distributed well across the important HTML tags. 

The TUT page content should be focused around particular keywords, which the university would like to rank. Ideally, these keywords should also be distributed across tags, such as the title, meta and header tags.


Individual Keywords

Keyword	Title	Meta Description Tag	Headings Tags	Page Frequency	
tut	×	×	✓	12	
student	×	×	✓	6	
technology	✓	×	✓	6	
tshwane	✓	×	×	5	
read	×	×	×	5	
university	✓	×	×	5	
interdict	×	×	✓	5	
court	×	×	✓	5	

Phrases


Phrase	Title	Meta Description Tag	Headings Tags	Page Frequency	
tshwane university	✓	×	×	5	
court interdict	×	×	✓	4	
university of technology	✓	×	×	4	
interdict -	×	×	✓	3	
court interdict -	×	×	✓	3	
policing student	×	×	✓	2	
maskandi artist	×	×	✓	2	
appropriate technology	×	×	✓	2	

Amount of Content

The TUT page has a good level of textual content, which would assist in its ranking potential. 

Word Count: 503

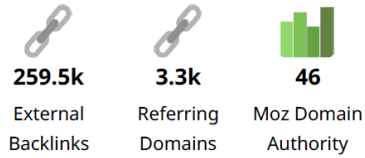
Image Alt Attributes

The TUT website has images on its page that are missing the ALT attributes. We found 11 images on the page; and 9 of them are missing the attributes. 

Links

Number of Backlinks

TUT has a strong level of backlink activity to this page.



Indexing

No-index Tag Test

The TUT page is not using the No-index Tag, which prevents indexing.



No-index Header Test


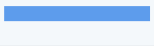

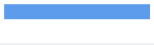
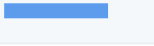

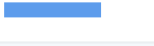

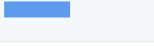










The TUT page is not using the No-index Header, which prevents indexing.



Rankings

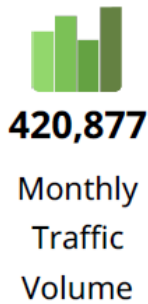
Top Key-word Rankings

This shows your top 10 Key-word Rankings in the specific location. The list is ordered by the key-words that drive the most traffic to the TUT page.

Keyword	Country	Position	Total Searches	Estimated Traffic	
its tut		1	165,000	50,160	
tut its		1	165,000	50,160	
nsfas		3	368,000	35,806	
tut		1	110,000	33,440	
mytutor		1	74,000	22,496	
nsfas application		2	90,500	14,661	
my tutor		1	33,100	10,062	
tut application status		1	27,100	8,238	
online application at tut		1	27,100	8,238	
tut online application		1	27,100	8,238	

Total Traffic from Search

This shows the Estimated Traffic Volume the TUT page receives from its Keyword Rankings



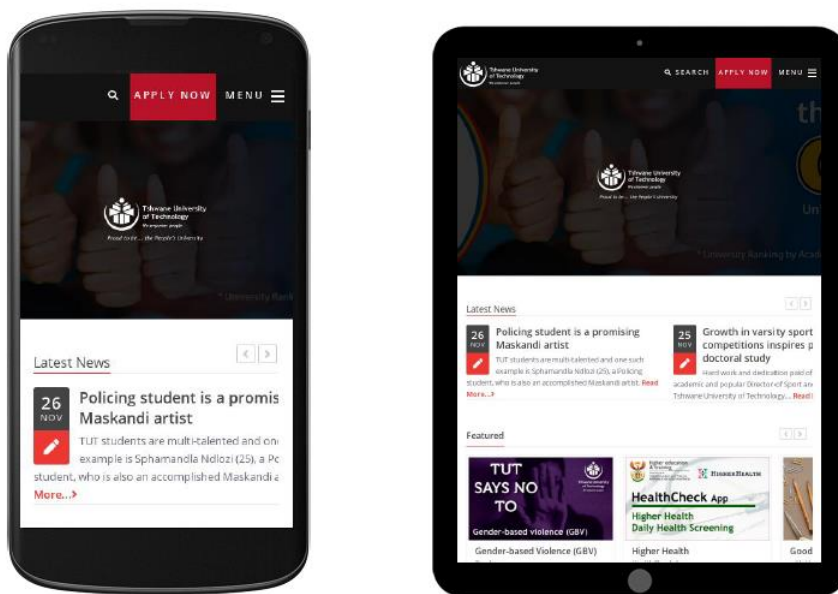
Usability

Your usability is good

The TUT page is mostly usable across devices. Usability is important to maximize the available audience; and to minimize the user-bounce rates (which can indirectly affect the search-engine rankings).

Device Rendering

This section visually demonstrates how the TUT page renders on different devices. It is important that the TUT page is optimized for mobile and tablet experiences; since today, the majority of web traffic comes from these sources.



Use of Mobile Viewports



The TUT page specifies a viewport matching the device's size, allowing it to render appropriately across the various devices.

Flash Used?



No Flash content has been identified on the TUT page.

iFrames Used?



There are no iFrames detected on the TUT page.

Favicon



The TUT page has specified a favicon.

Legible Font Sizes



There is some text on your page that is small and may not be legible enough for particular users. SEOptimer recommend reviewing all text on the page in different devices, to ensure that it is of an appropriate size.

Tap Target Sizing



The links and buttons on the page appear to be appropriately sized for a user to easily tap on a touchscreen.

Performance Results

Your performance needs improvement

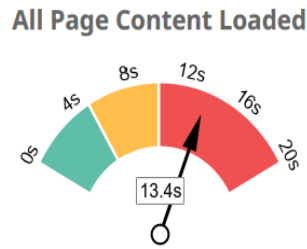
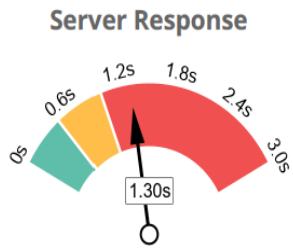
The page's performance has various issues that may be adversely affecting users. Performance is important, in order to ensure a good user experience, and reduced bounce rates (which can also indirectly affect the search-engine rankings). SEOptimer recommends addressing the highlighted factors below.

Page Speed Info

The page's server response time is slow.



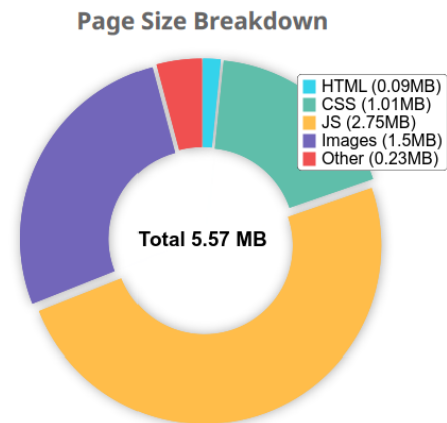
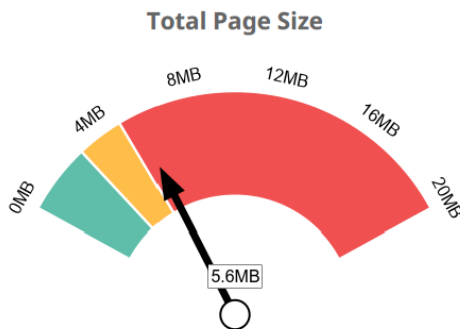
SEOptimer recommends optimizing this to improve user experience. There is a variety of technical factors, such as the web-server engine and the routing rules that can affect server responsiveness.



Page Size Info

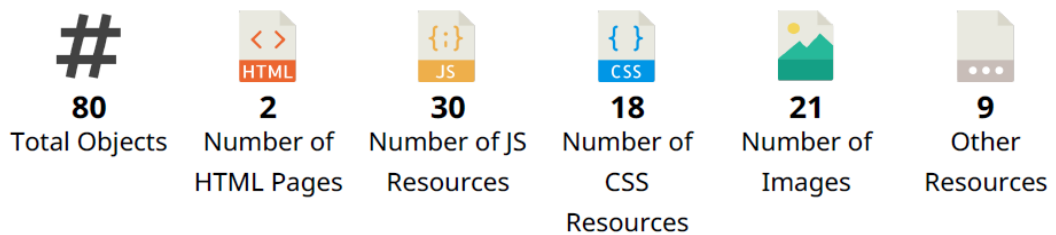


The TUT page-file size is quite large which, regardless of other optimizations, can reduce load speed and impact user experience. A general rule is to keep a page under 5MB in total file size.



Number of Resources

This check displays the total number of files that need to be retrieved from web servers, in order to load the page. As a general rule, having more files to retrieve increases the number of server requests; and this can subsequently increase the page-load time. It is a good idea to remove unnecessary files, or to consolidate files, like styles and scripts, where possible.



Google Accelerated Mobile Pages (AMP)

This page does not appear to have been AMP Enabled.



JavaScript Errors

The TUT page is not reporting any JavaScript errors.

GZIP Compression

SEOptimizer could not identify GZIP compression being used on the website.



SEOptimizer recommends enabling this feature; since it can reduce the page size by 70% and significantly speed up the page load for the users.



Optimized Images

The TUT page appears to include images, which are poorly optimized. Properly formatting and compressing images can have a significant impact on page-load performance.

Minification

Some of your JavaScript or CSS files do not appear to be minified.



Deprecated HTML

No deprecated HTML tags have been found within the page.



Inline Styles

The TUT page appears to be using inline styles. Inline styles are an older coding practice; and they are discouraged in favour of using CSS style sheets, due to their ability to degrade page-load performance and to unnecessarily complicate the HTML Code.

Social Results

Your social results could be better

TUT does not appear to have a strong social presence, or any level of social activity (or SEOptimizer may just not be able to see the profiles!). Social activity is important for customer communication, brand awareness, and as a marketing channel to bring more visitors to the universities' website. SEOptimizer recommends that TUT have all of its profiles listed on their page for visibility; and that they work to build a following on those networks.

Facebook Connected

The TUT page has a link to a Facebook Page.



Facebook Open-Graph Tags

SEOptimer has not found Facebook Open-Graph Tags on the TUT page.

Facebook Open-Graph Tags consist of a type of structured data that can be placed on the page, in order to control what content is shown, whenever a page is shared on Facebook.

Facebook Pixel



SEOptimer has not detected a Facebook Pixel on the page.

Facebook's Pixel is a piece of analytical code that allows TUT to track users, in order to retarget them with Facebook Ads in the future.

Twitter Connected

The TUT page has a link to a Twitter profile.



20,150
Followers



Twitter Activity

TUT has a strong following on Twitter.

Twitter Cards



SEOptimer has not detected any Twitter Cards on the TUT page.

Twitter Cards are a type of structured data that can be placed on a page to control what content is shown when a page is shared on Twitter.

Instagram Connected

No associated Instagram profile was found linked on the TUT page.



YouTube Connected

The TUT page has a link to a YouTube-channel.



1,030
Followers



44,971
View Count



YouTube Activity

TUT has a good number of YouTube-channel subscribers.



LinkedIn Connected

No associated LinkedIn profile was found linked on the TUT page.



Security Results

Your security looks very good!

SEOptimer hasn't identified obvious security problems on the TUT website. Security is important to ensure that the website protects users' data. This must not become compromised or experience down-time or data loss. SEOptimer recommends ongoing patching, as well as the continuous use of protective monitoring tools.

SSL-Enabled

The TUT website is SSL-enabled.



HTTPS Redirect

The TUT page successfully redirects to a HTTPS (SSL secure) version.



Email Privacy

No email addresses have been found in plain text on this page.



Technology Results

These software or coding libraries have been identified on the TUT page.












Technology	Version
animate.css	
 Bootstrap	
 Google Analytics	
 Google Font API	
IIS IIS	10.0
 jQuery	
 Microsoft ASP.NET	
 Microsoft SharePoint	
 Modernizr	
 OWL Carousel	
 Windows Server	

Table 11. Recommendations for TUT Website improvement

SEO	Include a meta description tag	High Priority
Performance	Reduce your total page file size	Medium Priority
Performance	Improve server response time	Medium Priority
SEO	Use your main keywords across the important HTML tags	Low Priority
SEO	Update URLs to be more human and Search Engine readable	Low Priority
SEO	Add ALT attributes to all images	Low Priority
Performance	Make use of GZIP compression	Low Priority
Performance	Optimize your images to reduce their file size	Low Priority
SEO	Add Schema Markup	Low Priority
Social	Setup & Install a Facebook Pixel	Low Priority
Performance	Remove inline styles	Low Priority
Social	Please add Facebook Open Graph Tags	Low Priority
Social	Add Twitter Cards	Low Priority
Social	Create and link associated Instagram profile	Low Priority
Performance	Minify your CSS and JS Files	Low Priority

In conclusion, a website needs to have memorable components to encourage users to learn and explore more. How the information is presented on the website, in terms of the content of the university, can facilitate the usage of the website. Each of the above-mentioned elements of the Kaplans' Informational Model of Landscape Preference (2010) can be associated with elements found on the websites of the selected universities.

The coherence, namely the colours and the product and service offerings, along with the complexity which refers to the way in which the website is arranged with regards to navigation of the page, all contribute to the success of the page. All these elements create interests amongst users to further explore the site. A straightforward webpage, with distinctive graphics and icons facilitates the navigation of a web page. From the positioning of the menu bar, or what appears on the site, ease the process for the user.

Universities need to ensure that their websites are user-friendly and easily understood, for the target audiences that visit these sites.

5. Recommendations

The findings of this study led to the development of an adapted brand-personality model. The brand personality Model of Aaker could not be used as is; since the various brand personality traits within the educational environment differ from those of traditional products and services. All sectors have their own set of requirements, their own set of values, norms, and target markets. Therefore, even the most comprehensive brand-personality models have to be adapted to the needs and the requirements of the units of analysis, in this case, being the strategic plans of UOTs in South Africa. The stakeholders, in this case, current and prospective students need to be taken into consideration, when a strategic plan of a university is being developed. The importance of the correct personality trait associated with the brand needs to be easily identified and displayed throughout all platforms of communication.

The vision, the mission and all the other elements found within the strategic plan need to be aligned, in order to ensure that all the stakeholders move in the same direction. Therefore, the success of a corporate-brand strategy is linked to the brand-personality traits that can give UOTs, such as TUT, a competitive edge.

The newly adapted brand-personality model for educational institutions comprises the following brand personality traits:

Dimension	Personality Trait
Excitement	¹ Purposeful, ² creative, ³ diverse, ⁴ independent ⁵ flexible, , ⁶ vibrant, ⁷ practical
Sincerity	⁸ Moral, ⁹ caring, ¹⁰ compassion, ¹¹ integrity, ¹² accountable ¹³ religious ¹⁴ respect ¹⁵ ethical ¹⁶ responsive, ¹⁷ considered , ¹⁸ traditional, ¹⁹ nurture, ²⁰ traditional, ²¹ ethical, ²² reliable,
Ruggedness	²³ bold, ²⁴ active, ²⁵ strong, ²⁶ active ²⁷ resilient, ²⁸ healthy, ²⁹ well-being ³⁰ strength, ³¹ safe,

Competence	³² productive, ³³ committed, ³⁴ equity ³⁵ excellence ³⁶ innovative, ³⁷ responsible, ³⁸ adaptable, ³⁹ consistent, ⁴⁰ critical ⁴¹ knowledgeable, ⁴² entrepreneurial ⁴³ skilled , ⁴⁴ inspire, ⁴⁵ efficient, ⁴⁶ talent, ⁴⁷ artistic, ⁴⁸ persistent, ⁴⁹ practical. ⁵⁰ artisitic, ⁵¹ talented
Sophistication	⁵² aspiration ⁵³ intellectual, ⁵⁴ empower, ⁵⁵ reputable ⁵⁶ sophisticated , ⁵⁷ qualified ⁵⁸ influential ⁵⁹ professional, ⁶⁰ influential, ⁶¹ empowered, ⁷⁷ ⁶² successful , ⁶³ accomplished, ⁶⁴ determined, ⁶⁵ motivated, ⁶⁶ Expert, ⁶⁷ prestige

TUT management needs to ensure that the above-mentioned brand-personality traits are more visible within their strategic plan, as well as on their social-media platforms and website. After all, TUT is known as the “people’s university;” and that in itself is a brand personality. Therefore, the university needs to display more of these traits within their communication, in order to reassure potential and current students that TUT strives to empower people.

Additionally, a well-designed and fully updated strategic plan and website design is a must in today’s competitive environment, which has become increasingly virtual. A university’s website is not only a must, but rather a crucial channel for modern communication. The more professional the website, the better the perception amongst the users (students).

The following recommendations, along with the findings and recommendations of the SEO meter, conclude that the Tshwane University of Technology needs to:

- Identify the weaknesses of the university
- Build a strong brand message both offline and online
- Make the university visible on all platforms and ensure that the website is easily accessible and navigable
- Adopt a minimalistic approach to the design of the home page of TUT
- Create eye-catching, but appropriate graphics
- Prevent a Web design that does not result in information overload
- Enhance the simplicity of the web design to be suitable for its target market
- Make the website more appealing, and faster to load

- Update the current look and feel of the website; it is too generic, and not user-friendly; it is recommended that the website should be distinctive from those of the other UOTs.
- Ensure that the website has a distinct identity, which would appeal to potential students
- Differentiate the TUT website; and render the site more memorable to users
- Differentiate themselves in such a way as to attract and retain the users

In conclusion, the importance of brand personality is easily overlooked by educational institutions. The set of human characteristics that consumers associate with a brand has proven that these traits, in turn, create symbolic meaning for the consumers. From a higher education point-of-view, brand personality is a method of communicating the product offerings (qualifications) and services (teaching and learning) that universities provide to learners. UOTs also use brand personality to distinguish their brand from those of their competitors, which is essential in today's competitive environment. The brand personality of a university needs to be visible on all communication platforms – even within the strategic plan of the university.

With that said, a strong brand personality is essential for building a strong brand, which in turn, generates loyalty. The beliefs that consumers (students and staff) hold about the university brand will lead to brand equity, which is the total value of the brand. All in all, a reputable and visible brand will allow for a clear measurement and evaluation of the effectiveness of the UOT's marketing efforts.

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Annexure 1

Example of TUT strategic plan content analysis: Atlas.ti software

1 p 3 in <i>Strategic_Plan2020-2025 TUT</i> ...ntellectualism and engaged scholarship to effect social change and transformation....
1 p 4 in <i>Strategic_Plan2020-2025 TUT</i> ... Our University is committed towards breaking down the ivory towers of academ...
1 p 4 in <i>Strategic_Plan2020-2025 TUT</i> ... We empower our graduates by future-proofng them to successf...
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i> ... 2Our Mission We advance social and economic transformation through relevant cu...
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i> ...tal problems and ensuring that our graduates are productive and active citizens....
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i> ...d ensuring that our graduates are productive and active citizens....
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i> ... We are a committed staff who works tirelessly towards providing a q...
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i> ... We are a committed staff who works tirelessly towards providing a q...
1 p 6 in <i>Strategic_Plan2020-2025 TUT</i> ... 3Our Values Integrity : We will always act honestly, ethically and pro...
1 p 6 in <i>Strategic_Plan2020-2025 TUT</i> ...ways act honestly, ethically and professionally Care : We will treat everyone with dignity and respec...
1 p 6 in <i>Strategic_Plan2020-2025 TUT</i> ... Care: We will treat everyone with dignity and respect and green our environment Diversity, Inclusion ...
1 p 6 in <i>Strategic_Plan2020-2025 TUT</i> ... green our environment Diversity, Inclusion and Equity : We will embrace diversity, foster inclusivity ...
1 p 6 in <i>Strategic_Plan2020-2025 TUT</i> ...mbrace diversity, foster inclusivity and promote equity Excellence: We will constantly innovate, solve...

- 1 p 6 in *Strategic_Plan2020-2025 TUT*
 ...iversity, foster inclusivity and promote equity **Excellence**: We will constantly innovate, solve problems an...
- 1 p 7 in *Strategic_Plan2020-2025 TUT*
 ...nt and sustainability • Service and operational **excellence** through resource optimisation • Digitally-advan...
- 1 p 8 in *Strategic_Plan2020-2025 TUT*
 ...dge, skills and attitudes to be enterprising and **responsible** citizens....
- 1 p 8 in *Strategic_Plan2020-2025 TUT*
 ...
 • Deploy **creative** and innovative educational practices in our prog...
- 1 p 8 in *Strategic_Plan2020-2025 TUT*
 ...
 • Engage our students as **active** participants in their learning experiences....
- 1 p 9 in *Strategic_Plan2020-2025 TUT*
 ...hyto-medicine, entrepreneurship and innovation, **creative** industries, advanced manufacturing and agricultu...
- 1 p 9 in *Strategic_Plan2020-2025 TUT*
 ...ion and grow our technology transfer capacity to **empower** our communities to solve complex problems....
- 1 p 9 in *Strategic_Plan2020-2025 TUT*
 ...ion and grow our technology transfer capacity to **empower** our communities to solve complex problems....
- 1 p 10 in *Strategic_Plan2020-2025 TUT*
 ...
 7Pillar 3: Service and operational **excellence** through resource optimisation None of our noble...
- 1 p 10 in *Strategic_Plan2020-2025 TUT*
 ...le goals and intentions will be realised without **strong**, resilient and adaptable internal structures and...
- 1 p 10 in *Strategic_Plan2020-2025 TUT*
 ... and intentions will be realised without strong, **resilient** and adaptable internal structures and organisati...
- 1 p 10 in *Strategic_Plan2020-2025 TUT*
 ...s will be realised without strong, resilient and **adaptable** internal structures and organisational arrangeme...
- 1 p 11 in *Strategic_Plan2020-2025 TUT*
 ...new digital architectures will see us transcend **traditional** silos and enable us to achieve and expand our s...
- 1 p 11 in *Strategic_Plan2020-2025 TUT*
 ...ill create strategies to reach a larger and more **diverse** community of learners, catalyse ground-breaking...

1 p 11 in *Strategic_Plan2020-2025 TUT*
...ill create strategies to reach a larger and more diverse community of learners, catalyse ground-breaking...

1 p 12 in *Strategic_Plan2020-2025 TUT*
...e frst phase followed by focus group interviews, expert consultations, sessions with institutional comm...

1 p 12 in *Strategic_Plan2020-2025 TUT*
...very uncertain and volatile national and global social, political, economic, technology and environment...

1 p 12 in *Strategic_Plan2020-2025 TUT*
...ship, as individual EMC and IMC members will be responsible and accountable for the implementation and achie...

1 p 12 in *Strategic_Plan2020-2025 TUT*
...ual EMC and IMC members will be responsible and accountable for the implementation and achievement of the g...

1 p 14 in *Strategic_Plan2020-2025 TUT*
... Mr K Tladi Director: Transformation, Employment Equity and Diversity Mr D Radipabe Director: Recruitme...

Annexure 2

Word-count example of TUT according to Atlas.ti findings

Word	Length	Count	%	StrategicPlan2020-2025 TUT	%
dignity	7	1	0,08	1	0,08
director	8	29	2,27	29	2,27
directorate	11	1	0,08	1	0,08
directors	9	1	0,08	1	0,08
directs	7	1	0,08	1	0,08
diverse	7	1	0,08	1	0,08
diversity	9	3	0,23	3	0,23
dp	2	1	0,08	1	0,08
dr	2	21	1,64	21	1,64
draft	5	1	0,08	1	0,08
driven	6	1	0,08	1	0,08
du	2	1	0,08	1	0,08
economic	8	3	0,23	3	0,23
economics	9	2	0,16	2	0,16
education	9	5	0,39	5	0,39
educational	11	1	0,08	1	0,08
efficient	8	1	0,08	1	0,08
effect	6	2	0,16	2	0,16
effective	9	2	0,16	2	0,16
effectiveness	13	3	0,23	3	0,23
eighth	6	1	0,08	1	0,08
electronic	10	1	0,08	1	0,08
em	2	1	0,08	1	0,08
emalahleni	10	1	0,08	1	0,08
embodiment	10	1	0,08	1	0,08
embrace	7	4	0,31	4	0,31
emc	3	2	0,16	2	0,16
empirically	11	1	0,08	1	0,08
employ	6	1	0,08	1	0,08
employee	8	1	0,08	1	0,08
employment	10	1	0,08	1	0,08
empower	7	2	0,16	2	0,16
empowers	8	1	0,08	1	0,08
enable	6	1	0,08	1	0,08

Word	Length	Count	%	StrategicPlan2020-2025 TUT	%
twenty	6	1	0,08	1	0,08
ubuntu	6	1	0,08	1	0,08
umuntu	6	1	0,08	1	0,08
uncertain	9	1	0,08	1	0,08
unemployment	12	2	0,16	2	0,16
universities	12	1	0,08	1	0,08
university	10	20	1,57	20	1,57
uphold	6	1	0,08	1	0,08
urap	4	1	0,08	1	0,08
urban	5	1	0,08	1	0,08
us	2	6	0,47	6	0,47
values	6	1	0,08	1	0,08
van	3	9	0,70	9	0,70
vice	4	8	0,63	8	0,63
views	5	1	0,08	1	0,08
villiers	8	1	0,08	1	0,08
vision	6	1	0,08	1	0,08
vn	2	1	0,08	1	0,08
volatile	8	1	0,08	1	0,08
wagemaker	9	1	0,08	1	0,08
water	5	1	0,08	1	0,08
watson	6	1	0,08	1	0,08
well	4	3	0,23	3	0,23
wellness	8	1	0,08	1	0,08
whereby	7	1	0,08	1	0,08
wherein	7	1	0,08	1	0,08
will	4	10	0,78	10	0,78
without	7	1	0,08	1	0,08
work	4	2	0,16	2	0,16
works	5	1	0,08	1	0,08
workshop	8	1	0,08	1	0,08
workshops	9	1	0,08	1	0,08
world	5	3	0,23	3	0,23

Annexure 3

Most frequent word used throughout the TUT strategic plan













Word	Length	Count▼	%	StrategicPlan2020-2025 TUT	%
director	8	29	3,34	29	3,34
technology	10	23	2,65	23	2,65
dr	2	21	2,42	21	2,42
university	10	20	2,30	20	2,30
prof	4	18	2,07	18	2,07
mr	2	17	1,96	17	1,96
management	10	15	1,73	15	1,73
dean	4	14	1,61	14	1,61
faculty	7	14	1,61	14	1,61
campus	6	13	1,50	13	1,50
executive	9	13	1,50	13	1,50
ms	2	13	1,50	13	1,50
research	8	12	1,38	12	1,38
learning	8	11	1,27	11	1,27
engagement	10	10	1,15	10	1,15
will	4	10	1,15	10	1,15
development	11	9	1,04	9	1,04
goals	5	9	1,04	9	1,04
isp	3	9	1,04	9	1,04
strategic	9	9	1,04	9	1,04
support	7	9	1,04	9	1,04
van	3	9	1,04	9	1,04
acting	6	8	0,92	8	0,92
assistant	9	8	0,92	8	0,92
chancellor	10	8	0,92	8	0,92
deputy	6	8	0,92	8	0,92
innovation	10	8	0,92	8	0,92
institutional	13	8	0,92	8	0,92
vice	4	8	0,92	8	0,92
teaching	8	7	0,81	7	0,81
transfer	8	7	0,81	7	0,81
transformation	14	7	0,81	7	0,81
communities	11	6	0,69	6	0,69
rector	6	6	0,69	6	0,69















Word	Length	Count▼	%	StrategicPlan2020-2025 TUT	%
chancellor	10	8	0,92	8	0,92
deputy	6	8	0,92	8	0,92
innovation	10	8	0,92	8	0,92
institutional	13	8	0,92	8	0,92
vice	4	8	0,92	8	0,92
teaching	8	7	0,81	7	0,81
transfer	8	7	0,81	7	0,81
transformation	14	7	0,81	7	0,81
communities	11	6	0,69	6	0,69
rector	6	6	0,69	6	0,69
us	2	6	0,69	6	0,69
education	9	5	0,58	5	0,58
foster	6	5	0,58	5	0,58
internal	8	5	0,58	5	0,58
people's	8	5	0,58	5	0,58
problems	8	5	0,58	5	0,58
programmes	10	5	0,58	5	0,58
quality	7	5	0,58	5	0,58
resource	8	5	0,58	5	0,58
service	7	5	0,58	5	0,58
services	8	5	0,58	5	0,58
staff	5	5	0,58	5	0,58
academic	8	4	0,46	4	0,46
deploy	6	4	0,46	4	0,46
digital	7	4	0,46	4	0,46
embrace	7	4	0,46	4	0,46
experiences	11	4	0,46	4	0,46
graduates	9	4	0,46	4	0,46
growth	6	4	0,46	4	0,46
higher	6	4	0,46	4	0,46
impact	6	4	0,46	4	0,46
impactful	9	4	0,46	4	0,46
information	11	4	0,46	4	0,46
interim	7	4	0,46	4	0,46

Annexure 4































TUT Sentiment Analysis















1 p 1-2 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
Strategic Plan 2020-2025 Umuntu Ngumuntu Ngabantu defines TUT's moral purpose as a people's university that empowers our communities and transforms our society through meaningful and impactful engagement.	Neutral
1 p 2-3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
Prof LR van Staden Vice-Chancellor and Principal TUT, a people's university Our University was formed in 2004 following the merger of three technikons. Our merger aimed at redressing the inequalities ...	Neutral
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
...n 2004 following the merger of three technikons. Our merger aimed at redressing the inequalities of the past by providing access to all our communities and an academic home for all our students.	Positive
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
In that short time, we have grown into the largest contact University in South Africa, with seven faculties offering programmes in science, engineering and technology, business and management, education, humanities and the arts.	Neutral
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
We have been ranked by Times Higher Education (THE) in 2018 as one of the top 1000 universities globally and our programmes in engineering in the top 300. THE has also ranked us eighth in South Africa. I...	Positive
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
...d our programmes in engineering in the top 300. THE has also ranked us eighth in South Africa. In 2017, University Ranking by Academic Perform...	Positive
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	No Codings
... THE has also ranked us eighth in South Africa. In 2017, University Ranking by Academic Performance (URAP) ranked us as the number one University of Technology in Africa.	Positive















1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Equally important, as a people's university our moral purpose is to be the embodiment and custodian of our people's aspirations. This strategic intent is foregrounded by the out...		
+  Positive +		
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...ment and custodian of our people's aspirations. This strategic intent is foregrounded by the outcomes of our Transformation Summit held in 2017 and subsequent Transformation Framework, which was informed by national, continental and global developmental goals.		
+  Neutral +		
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Our University provides an academic home for all our people, especially for those who are at the margins of society, rural and urban, by maximising access to higher education to address our triple challenges of poverty, inequality and unemployment.		
+  Positive +		
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
We adopt a decolonial position as our programmes aim to have a liberating effect by ensuring that our learning becomes a continuum of creation, innovation and technology transfer to serve the aspirations of our communities.		
+  Negative +		
1 p 3 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Anchored in the African philosophy of Ubuntu, we are a caring and compassionate University and a site of ideation, intellectualism and engaged scholarship to effect social change and transformation.		
+  Negative +		
1 pp 3-4 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Our Vision A people's university that makes knowledge work At TUT, we embrace engaged scholarship whereby learning, teaching, research and engagement is integrated with our everyday realities.		
+  Positive +		


1 p 4 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Our University is committed towards breaking down the ivory towers of academia by finding authentic and enduring solutions to our communities' most pressing problems.		+  Positive +
1 p 4 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
We empower our graduates by future-proofing them to successfully negotiate the rapidly changing world of work and make a tangible movement towards civic renewal.		+  Positive +
1 pp 4–5 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
2Our Mission We advance social and economic transformation through relevant curricula, impactful research and engagement, quality learning experiences, dedicated staff and an enabling environment Our mission directs us towards solving pressing societal problems and ensuring that our graduates are productive and active citizens.		+  Neutral +
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Our suite of programmes and qualifications, research and innovation, as well as engagement with stakeholders are aimed at making a positive impact on our communities.		+  Positive +
1 p 5 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
We are a committed staff who works tirelessly towards providing a quality service and conducive teaching, learning and living spaces.		+  Positive +
1 pp 5–6 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
3Our Values Integrity: We will always act honestly, ethically and professionally Care: We will treat everyone with dignity and respect and green our environment Diversity, Inclusion and Equity: We will embrace diversity, foster inclusivity and promote equity Excellence: We will constantly innovate, solve problems and aim to improve ourselves and others Accountability: We are answerable to each other and will act in the best inter...		+  Positive +
1 pp 6–7 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
4Our Pillars and Goals We have identified four equally important pillars to support our strategy over the next six years. These are: • Future-ready graduates who make a ...		+  Positive +

<p>1 pp 5–6 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>3Our Values Integrity: We will always act honestly, ethically and professionally Care: We will treat everyone with dignity and respect and green our environment Diversity, Inclusion and Equity: We will embrace diversity, foster inclusivity and promote equity Excellence: We will constantly innovate, solve problems and aim to improve ourselves and others Accountability: We are answerable to each other and will act in the best inter...</p>		<p>+  Positive +</p>
<p>1 pp 6–7 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>4Our Pillars and Goals We have identified four equally important pillars to support our strategy over the next six years. These are: • Future-ready graduates who make a ...</p>		<p>+  Positive +</p>
<p>1 p 7 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>...o support our strategy over the next six years. These are: • Future-ready graduates who make a positive societal impact • Impactful research, innovation, engagement and technology transfer to foster growth, development and sustainability • Service and operational excellence through resource optimisation • Digitally-advanced University.</p>		<p>+  Negative +</p>
<p>1 p 7 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>The pillars are translated into goals and objectives with associated performance indicators.</p>		<p>+  Positive +</p>
<p>1 p 7 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>The implementation of the ISP 2020-2025 is monitored, evaluated and reported in the Annual Performance Plans and Annual Reports, which are submitted to the TUT Council and the Department of Higher Education and Training.</p>		<p>+  Positive +</p>
<p>1 pp 7–8 in <i>Strategic_Plan2020-2025 TUT</i></p>	<p>↗</p>	<p>No Codings </p>
<p>5Pillar 1: Future-ready graduates who make a positive societal impact While the world around us is characterised by rapid technological change, we are still confronted, as a nation and a continent, by complex problems, inequalities, poverty and unemployment. We embrace engaged scholarship wherein we contex...</p>		<p>+  Positive +</p>

 1 pp 7–8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>5Pillar 1: Future-ready graduates who make a positive societal impact While the world around us is characterised by rapid technological change, we are still confronted, as a nation and a continent, by complex problems, inequalities, poverty and unemployment. We embrace engaged scholarship wherein we contex...</p>		  Positive 
 1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>...oblems, inequalities, poverty and unemployment. We embrace engaged scholarship wherein we contextualise our academic offerings to our everyday realities. We ensure that our teaching and learning appoa...</p>		  Positive 
 1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>...ur academic offerings to our everyday realities. We ensure that our teaching and learning approaches are grounded in empirically-sound best practices.</p>		  Positive 
 1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>Goals • Deliver research-informed, high-quality teaching and learning experiences to our students.</p>		  Negative 
 1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>• Equip our students with knowledge, skills and attitudes to be enterprising and responsible citizens.</p>		  Positive 
 1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
<p>• Deploy creative and innovative educational practices in our programmes.</p>		  Positive 

1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Goals • Deliver research-informed, high-quality teaching and learning experiences to our students.		+  Negative +
1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Equip our students with knowledge, skills and attitudes to be enterprising and responsible citizens.		+  Positive +
1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Deploy creative and innovative educational practices in our programmes.		+  Positive +
1 p 8 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Engage our students as active participants in their learning experiences.		+  Negative +
1 pp 8–9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
6Pillar 2: Impactful research, innovation, engagement and technology transfer to foster growth, development and sustainability.		+  Negative +
1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
We have developed sector leading expertise and knowledge production in, among others, water research, phyto-medicine, entrepreneurship and innovation, creative industries, advanced manufacturing and agricultural sciences. We aim to expand our research production and gr...		+  Positive +
1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...dvanced manufacturing and agricultural sciences. We aim to expand our research production and grow our technology transfer capacity to empower our communities to solve complex problems.		+  Negative +

1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
We have developed sector leading expertise and knowledge production in, among others, water research, phyto-medicine, entrepreneurship and innovation, creative industries, advanced manufacturing and agricultural sciences. We aim to expand our research production and gr...		+  Positive +
1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...dvanced manufacturing and agricultural sciences. We aim to expand our research production and grow our technology transfer capacity to empower our communities to solve complex problems.		+  Negative +
1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Goals • Develop our internal capacity and opportunities for creativity, research, innovation, engagement and technology transfer.		+  Negative +
1 p 9 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Increase our productivity and impact to advance growth, development and sustainability.		+  Negative +
1 pp 9–10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
7Pillar 3: Service and operational excellence through resource optimisation None of our noble goals and intentions will be realised without strong, resilient and adaptable internal structures and organisational arrangements. We commit to developing our internal capacity t..		+  Negative +
1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...rnal structures and organisational arrangements. We commit to developing our internal capacity to fulfil our obligations and expectations of our internal and external stakeholders. We will invest in our people so that they find fu...		+  Negative +
1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...ions of our internal and external stakeholders. We will invest in our people so that they find fulfillment in executing their tasks and uphold the highest service delivery standards.		+  Positive +

1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...rnal structures and organisational arrangements. We commit to developing our internal capacity to fulfil our obligations and expectations of our internal and external stakeholders. We will invest in our people so that they find fu...		+  Negative +
1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...ions of our internal and external stakeholders. We will invest in our people so that they find fulfilment in executing their tasks and uphold the highest service delivery standards.		+  Positive +
1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Goals • Deploy agile and efficient processes and structures to ensure sound governance, resource sustainability and effective service delivery.		+  Positive +
1 p 10 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Develop and support high-performance teams to foster staff engagement, quality leadership as well as personal and organisational growth.		+  Positive +
1 pp 10–11 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
8Pillar 4: Digitally-Advanced University As a leading university of technology on the continent, we embrace and cultivate new approaches that are a feature of our rapidly changing, technology-enabled and technology-driven world. Our adoption of innovative practices and new dig...		+  Positive +
1 p 11 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...technology-enabled and technology-driven world. Our adoption of innovative practices and new digital architectures will see us transcend traditional silos and enable us to achieve and expand our strategic priorities.		+  Positive +

1 p 11 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Our digital transformation will create strategies to reach a larger and more diverse community of learners, catalyse ground-breaking research capabilities and technology transfer, as well as employ new business models to improve our services.		+  Positive +
1 p 11 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Goals • Deploy digital and smart technologies to enhance student learning experiences, facilitate knowledge creation, increase engagement and accelerate technology transfer.		+  Positive +
1 p 11 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
• Deploy digital technologies to strengthen our internal capabilities to foster sound University governance and deliver effective services.		+  Positive +
1 pp 11–12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
9 Acknowledgements The development of the ISP 2020-2025 (ISP 2020-2025) was led by the Vice-Chancellor and Principal, Prof LR van Staden and coordinated by the Executive Director: Institutional Effectiveness and Technology, Dr D Naidoo. The Strategic Management Support Directorate ass...		+  Negative +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...onal Effectiveness and Technology, Dr D Naidoo. The Strategic Management Support Directorate assisted in the compilation of the ISP 2020-2025).		+  Neutral +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Twenty-one workshops and over 300 staff members from all sectors of the University were consulted in the first phase followed by focus group interviews, expert consultations, sessions with institutional committees and electronic surveys. Executive management members and key role player...		+  Negative +

1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...onal Effectiveness and Technology, Dr D Naidoo. The Strategic Management Support Directorate assisted in the compilation of the ISP 2020-2025).		+  Neutral  +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
Twenty-one workshops and over 300 staff members from all sectors of the University were consulted in the first phase followed by focus group interviews, expert consultations, sessions with institutional committees and electronic surveys. Executive management members and key role player...		+  Negative  +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
...nstitutional committees and electronic surveys. Executive management members and key role players' views were solicited on positioning the University during very uncertain and volatile national and global social, political, economic, technology and environmental conditions.		+  Positive  +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
A final workshop was held from 3 to 6 February 2019 bringing together the three tiers of the University management and leadership, namely the Executive Management Committee (EMC), the Institutional Management Committee (IMC) and Directors, to prepare the first complete draft of the ISP 2020-2025.		+  Negative  +
1 p 12 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
The methodology followed was aimed at promoting inclusivity and ownership, as individual EMC and IMC members will be responsible and accountable for the implementation and achievement of the goals and objectives of the ISP 2020-2025.		+  Positive  +
1 pp 12–16 in <i>Strategic_Plan2020-2025 TUT</i>	↗	No Codings 
10 We acknowledge the contributions of all our staff and the leadership below: Prof LR van Staden Vice-Chancellor and Principal Prof MS Mukhola Deputy Vice-Chancellor: Teaching, Learning and Technology Dr T Mqwebi Deputy Vice-Chancellor: Research Innovation and Engagement Mr SA Mahlalela Acting Deputy Vice-Chancellor: Institutional Support and Chief Financial Officer Prof E Coetzee Acting Deputy Vice-Chancellor: Studen...		+  Negative  +