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Improving Digital Marketing Strategy: The Impact of Digital Analytics



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This research explores the impact of digital analytics in companies experiencing low website traffic due to ineffective digital marketing strategies. In today's digital age, businesses constantly strive to optimize their marketing strategies to reach their target audience effectively. Digital marketing has become an integral part of any successful business plan, and digital analytics plays a vital role in optimizing the efficiency of these strategies.

This thesis used a web analytics research method. Statistical data were collected by observing the online behaviour of website customers with the aid of a web analytic tool (Squarespace). The research revealed that the case company's website traffic is low because their social media followers were not clicking the landing page link tagged with their paid advertisement. Hence, their digital marketing strategy is less effective. The research also revealed that the marketing department needed to understand its target audience's online behaviour due to a lack of interest in digital analytics. Hence, they focused on the wrong digital marketing channels and ignored other effective digital channels.

Based on the insights received from the web analytics, the author recommends that the case company invests more in search engine optimization, practice target digital marketing, optimize the website for mobile devices, and develop a mobile application version of their website to optimize the general website performance, particularly the traffic.

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**ABBREVIATIONS**

SEM	Search Engine Marketing
SEO	Search Engine Optimization
SERP	Search Engine Result Page
KPIs	Key Performance Indicators
PPC	Pay Per Click
Mobile APP	Mobile Application

## 1 Introduction

In today's digital world, any business or group that wants to build a significant online presence must have a website. However, more than simply having a website is required. Companies must be able to attract and retain website visitors to succeed in the online economy. This is where digital analytics enters the picture. Businesses can obtain valuable insights into their website traffic, understand their audience's behaviour and preferences, and make data-driven decisions to improve the performance of their website by employing digital analytics solutions.

The gathering, measurement, analysis, and interpretation of digital data to maximize digital marketing efforts is called digital analytics (Hennig-Thurau et al., 2010). By using digital analytics tools and approaches, businesses can better understand their website visitors and adjust their online presence to meet their needs better. Digital analytics can detect underperforming portions of a website, such as pages with high bounce rates or little engagement.

Web analytics is an effective technique in digital analytics that involves collecting and analyzing website data to improve user experience and engagement (Kumar & Bezawada, 2013). Web analytics solutions can provide valuable insights into user activity, such as which sites they visit, how long they stay on each page, and what actions they take. Businesses can find patterns and trends in this data and make informed decisions about improving their website by analyzing it.

The scope of digital analytics is broad and can include various digital channels such as websites, social media, mobile apps, and email marketing campaigns. However, this thesis will focus on website analytics. The data that will be collected will range from basic website traffic metrics and traffic devices data. This data will be collected using a digital analytic tool (Squarespace Analytics). The author suggests that a comprehensive digital analytics framework should include the following components: data collection, data processing, data analysis, and data visualization. These components work together to provide a holistic view of the customers and their behaviour across various digital channels. Against this backdrop, this thesis aims to show the impact of digital analytics in improving digital marketing strategy by recommending a marketing strategy that can boost Company X's website.



### 1.1 Purpose of Study

Currently, the case company's marketing department needs help understanding why its website traffic is low and which marketing strategy it could adopt to help boost its website traffic. This thesis aims to use a digital analytic tool to do web analytics on Company X's website, understand customer behaviour, and take insight from the analytics to recommend an improved digital marketing strategy for Company X.

### 1.2 Research Problem and Research Questions

Their current social media channels are Facebook, Instagram, and a website displaying their artwork. Currently, they have 228 followers on Facebook and 1600 followers on Instagram. Their existing marketing strategy functions in this pattern; The marketing department often sends out paid ads on their social media pages (Facebook and Instagram) with a landing page link to their website attached to the post. They often engage their followers for feedback and regularly post organic ads with a catching story behind the artwork.

**RQ1** Does the existing marketing strategy generate more website traffic than social media followers?

**RQ2** If the traffic is low, what is the cause?

### 1.3 Aims and Objectives

This study aims to help the case company boost website traffic by recommending an improved digital marketing strategy to increase product sales. To achieve these aims, the objectives of this thesis are:

- To understand why the existing marketing strategy is ineffective by studying the customer's online behaviour.
- Take insights from customer behaviour to recommend an effective marketing strategy.

## 1.4 Thesis Structure

In this section, the structure of the thesis is described in detail from the first chapter to the last chapter. The table contains the various headings that were discussed from chapter one to six which constitute the structure of this thesis.

Chapters	Description
Chapter 1	<p>In this chapter, the author discussed the following:</p> <ul style="list-style-type: none"> <li>• Research Introduction</li> <li>• Purpose of study</li> <li>• Research problem and questions</li> <li>• Aims and Objectives of the thesis</li> </ul>
Chapter 2	<p>In this section, the author introduced:</p> <ul style="list-style-type: none"> <li>• Company X.</li> <li>• Background of company X's marketing department</li> </ul>
Chapter 3	<p>In this section, the author reviewed relevant literature on the following:</p> <ul style="list-style-type: none"> <li>• Digital marketing strategy</li> <li>• Digital analytics</li> <li>• Web analytics process</li> </ul>
Chapter 4	<p>In this section, the author explained in detail the following:</p> <ul style="list-style-type: none"> <li>• Research philosophy</li> <li>• Research method</li> <li>• Sampling technique</li> <li>• Reliability and validity of research</li> <li>• Result and interpretation</li> </ul>
Chapter 5	<p>In this section, the author discussed:</p> <ul style="list-style-type: none"> <li>• Findings</li> </ul>

Chapters	Description
	<ul style="list-style-type: none"><li>• Answer research questions</li><li>• Implemented web analytics process on company X website.</li><li>• recommendations</li></ul>
Chapter 6	Conclusion.

Table 1: Thesis Structure

## 2 Introduction to Case Company

The case company, which would be referred to as company X is a US-based company located in Colorado that is keen on shining the spotlight on most of the best visual works hidden across Africa's continent. They provide a platform representing the true African story African visual artists tell. The online art gallery offers a vast collection of original art and limited-edition art printings for sale for some of the continent's most exquisite visual arts stemming from all parts of her region.

Their experienced curators and appraisal experts carefully select all art for sale at their online gallery. They all include certificates of authenticity endorsed, signed, and numbered by the artist. They connect their clients to the world of unrecognized African virtual artists selected by their team of experienced curators and appraisal experts. They are recognized for providing exceptional customer service and regularly handle the sale of their significant art collections from Africa to the rest of the world.

### 2.1 Existing Marketing Strategy

Their current social media channels are Facebook, Instagram, and a website displaying their artwork. Currently, they have 228 followers on Facebook and 1600 followers on Instagram. Their existing marketing strategy functions in this pattern; The marketing department often sends out paid ads on their social media pages (Facebook and Instagram) with a landing page link to their website attached to the post. They often engage their followers for feedback and regularly post organic ads with a catching story behind the artwork.

### 3 Literature Review

The internet and digital technologies have transformed the commercial sector, including marketing strategy. As more consumers search for products and services online, online businesses have adopted digital marketing strategies to effectively reach their target audience. In this section, relevant past literature on digital marketing strategy which online businesses adopt to foster the growth of their business were reviewed.

#### 3.1 Digital Marketing Strategy

According to Chaffey (2019), digital marketing strategy entails promoting a product or service using digital channels such as search engines, social media platforms, and email marketing. The capacity to connect and engage with the target audience through relevant and valuable content is critical to the success of a digital marketing campaign. To accomplish this, firms must first understand their target audience's behaviour and needs. According to Kotler and Keller (2016), a digital marketing strategy should have clear objectives, target audience, positioning, and a plan of action that integrates various online marketing channels such as search engine optimization (SEO), social media marketing, email marketing, content marketing, and paid advertising. According to a study by Deloitte Digital, companies that adopt a digital marketing strategy are 2.5 times more likely to experience revenue growth than those that do not (Mancini, 2019)

#### 3.2 Components of Digital Marketing

Based on understanding from Chaffey's (2019) definition of digital marketing strategy is a comprehensive plan that outlines how an organization will use digital channels, such as social media, email, search engines, and websites, to achieve its marketing objectives. Hence, a digital marketing strategy typically comprises several components that are interconnected and complement each other.

### 3.3 Content Marketing.

This digital marketing strategy involves creating and distributing valuable and relevant content to attract and retain a clearly defined audience (Pulizzi & Barrett, 2015). Content can take various forms, such as blog posts, videos, infographics, and e-books, and should be aligned with the target audience's interests and preferences.

### 3.4 Search Engine Optimization (SEO)

This optimizes a website's content and structure to rank higher in search engine results pages (SERPs) and grow organic traffic (Chaffey et al., 2019). SEO involves different techniques, such as on-page optimization, link building, keyword research, and mobile optimization.

SEO is essential to digital marketing because it can help businesses increase their visibility and reach a larger audience. According to a study by BrightEdge, organic search drives 53.3% of website traffic, making it the most significant source of web traffic (BrightEdge, 2021). Therefore, businesses optimizing their websites for search engines are more likely to attract visitors, generate leads, and ultimately increase revenue.

The techniques used in SEO can be broadly categorized into on-page SEO and off-page SEO. On-page SEO refers to optimizing a webpage's content and HTML source code. At the same time, off-page SEO involves building backlinks from other websites to increase the authority and relevance of a webpage. The title tags, meta descriptions, headers, graphics, and internal links can all be optimized using on-page SEO strategies. These methods make it simpler for search engines to rank a webpage on Search Engine Result Pages (SERPs) by assisting them in comprehending the content and context of the webpage. Link building, social media marketing, and influencer outreach are examples of off-page SEO strategies. These methods aid in boosting a website's authority and relevance, which increases the chances that it will rank higher in search engine results.

SEO has a significant impact on website ranking. Search engines use complex algorithms to rank web pages based on various factors such as content quality, relevance, and authority. By optimizing a website for search engines, businesses can improve their chances of ranking higher on SERPs and attracting more organic traffic. According to a study by Backlinko, the top-ranking website on Google search results receives 31.7% of clicks, making it crucial to rank high on SERPs (Backlinko, 2021).

### 3.5 Search Engine Marketing (SEM).

The main feature of search engine marketing is the combination of search engine optimization with advertising tactics such as pay-per-click. In a previous sub-chapter, search engine optimization was defined as the process of improving a company's website ranking in a search engine through optimization modifications. In contrast, pay-per-click (PPC) is an online advertising method in which the advertiser pays the host in advance. It is typical advertising tactic businesses use to keep their website at the top of search engine rankings. It is costly to have a company's website at the top of search engine results (Wynne, 2011).

Search engines can find a website in various ways, including submission to search engines, link building, and optimization of social network links. Surprisingly, search engine marketing has emerged as the fastest-growing advertising channel. Google, Yahoo, and Microsoft AdCenter are the three most prominent search engine marketing providers. Two types of search engine marketing are paid and unpaid (organic). For the organic option, such as Google, there are various advantages to being mentioned in the organic result: The most exciting advantage is that there is no cost to being placed on the organic list. It is common practice to segregate paid advertisements from non-paid ones because they are at the top. The format of adverts on search engines is always the same: the title, the URL, and an outline of the primary text. In addition, there is frequently an additional and optional component in search engine marketing ads known as the "ad extension." Area extensions are recognizable to all search engine users since they are facts or elements linked to AD material, such as phone numbers (call extensions), supplementary site connections, image extensions, and seller ratings (Wynne, 2011). A keyword is essential to search engine marketing, just as with optimization. Companies that want to employ search engine marketing must conduct adequate keyword research before developing search engine advertisements (Wynne, 2011). Search engines consider indicators such as the average click-through rate (calculated by dividing the total number of clicks by the total number of ad impressions), the average bounce rate, and the search engine optimization score (Stokes, 2013). Social Media Marketing

This is another component of digital marketing strategy that refers to using social media platforms, such as Facebook, Instagram, Twitter, and LinkedIn, to promote a brand's products or services (Chaffey et al., 2019). Social media can be used to increase brand awareness, engage with customers, and drive website traffic. Social media are online platforms that facilitate communication and engagement between people all over the world (Nations, 2017). In terms of social media, two words have meaning: "social" indicates interaction and relationship, and "media"

means a channel of communication. Standard features shared by all social networking platforms include user profiles, news feeds, postings, reactions, and comment areas. According to the Statistics Research Department, over 3.6 billion people utilized social media worldwide in January 2022, with a projected increase to 4.41 billion users in 2025. These figures demonstrate that social media is the most extensive advertising resources in the world, with 3.6 billion predicted to reach 4.41 billion. The statistics provide a medium in which marketing must be concentrated. These massive marketing resources and a consumer base necessitate proper social media promotion. Creating content that piques the interest of customers is one of the keys to successful social media marketing (Statista, 2022). However, this goes beyond simply providing content; it also entails knowing the different types of customers (social media users) and tailoring things to them. Advertising is a comprehensive form of communication between a firm and its existing and future clients. Advertising's goal is to promote products and services to clients through specific channels (in this example, social media). There is an advertising industry, and the sector uses several advertising channels to reach clients. The internet, print media, television, and radio are all common communication outlets (Stelzner, 2016).

### 3.6 Social Media Marketing

Social Media Marketing is another component of digital marketing strategy that uses social media platforms, such as Facebook, Instagram, Twitter, and LinkedIn, to promote a brand's products or services (Chaffey et al., 2019). Social media can increase brand awareness, engage customers, and drive website traffic. Social media are online platforms that facilitate communication and engagement between people worldwide (Nations, 2017). Regarding social media, two words have meanings: "social" indicates interaction and relationship, and "media" means a communication channel. Standard features all social networking platforms share include user profiles, news feeds, postings, reactions, and comment areas. According to the Statistics Research Department, over 3.6 billion people utilized social media worldwide in January 2022, with a projected increase to 4.41 billion users in 2025. These figures demonstrate that social media is the most extensive advertising resource globally, with 3.6 billion predicted to reach 4.41 billion. The statistics provide a medium in which marketing must be concentrated. These massive marketing resources and a consumer base necessitate proper social media promotion. Creating content that piques customers' interest is one of the keys to successful social media marketing (Statista, 2022). However, this goes beyond simply providing content; it also entails knowing the different types of customers (social media users) and tailoring things to them. Advertising is comprehen-



sive communication between a firm and its existing and future clients. Advertising aims to promote products and services to clients through specific channels (for example, social media). There is an advertising industry that uses several advertising channels to reach clients. The Internet, print media, television, and radio are standard communication outlets (Stelzner, 2016).

Social media sites like Facebook, Twitter, and Instagram collect data from user interactions, and this valuable data is sold to marketers to help them decide on advertisement content. This action by social media platforms is not entirely legal; it has been the source of various conflicts, as there are concerns regarding customers' privacy. However, from a business standpoint, trading acquired user interaction data with firms makes marketers' jobs more accessible and affordable. Data availability aids organizations in client segmentation and the production of focused market materials; this means that the company will be able to do better in their advertising effort when compared to traditional marketing, which cannot segment properly. The company also uses this method for brand awareness and to reach more customers if that is the purpose of the advertisement (Nations, 2017). Some popular social media marketing channels are:

### 3.6.1 Instagram Marketing

Instagram Marketing is an American multinational mobile photo and video-sharing app founded in 2010 by Mike Krieger and Kevin Systrom. 2 years after the service was founded, Facebook Inc. acquired it for a fee of US\$1 billion in cash and stock.

With over one billion active monthly users, Instagram is one of the most popular social media in the world. Tracking from its 2010 year of creation date, Instagram is the fourth most downloaded app (Miller, 2019).

Advertisement on Instagram comes in two ways, either cost per engagement or cost per impression. The average price per click on Instagram in 2021 ranges from US\$0.40 to US\$0.70. To do an advertisement on Instagram, users will have to do it via Facebook Business Manager. There is a considerable similarity between advertisements on Instagram and Facebook, which follow a similar pattern. Instagram advertisement follows photo promotion, video promotion, story advertising, and carousel advertising (Akvile, 2022). Social media websites such as Facebook, Twitter, and Instagram collect data from user interactions, and this valuable data is sold to marketers to help them decide on advertisement content. This action by social media platforms is not entirely legal; it has been the source of various conflicts, as there are concerns regarding customers' privacy. However, from a business standpoint, trading acquired user interaction data with firms

makes marketers' jobs more accessible and affordable. Data availability aids organizations in client segmentation and producing focused market materials; the company can do better in its advertising effort than traditional marketing, which cannot segment properly.

### 3.6.2 Facebook

Facebook is the largest social media advertising platform since it gives the most detailed client information and is the market leader. According to a 2016 Hootsuite poll, Facebook provides the best return on investment. A Facebook advertisement's average cost per click was \$0.97 (Akvile, 2022). Facebook advertising was among the least expensive ads for any business. Advertising also includes retargeting, testing, and reporting capabilities, making the overall bundle worthwhile (Akvile, 2022). Facebook advertisements come in different forms, such as video, slideshow, and photo. One of the fundamental uniqueness of Facebook as an advertising platform is the segmentation possibility: it is easy to target a specific audience without too much hassle. Targeting the audience is easy with factors such as interests, behaviours, and demographics. The step to achieve this is quite simple. The first step is creating a brand page; then, details of the business, such as business types and the account's name, are specified. After this step, a page where the company can profile information and images is generated. A brand page contains messages, insights, publishing tools, settings, and help tabs. The page tab functions as a "home" button and takes one back to the page's general view. The message tab shows where customers' messages are received and responded to. Insight measures performance like post reaches and total engagement, details of likes, and suggests the best time for posting content. The publishing tool shows details of published and scheduled posts. The setting tab covers everything that can be set and reset (Akvile, 2022).

Facebook now offers a new package – a direct option to set up an online store on a Facebook business page. The business page can be done in the setting and edit page. The shop feature on Facebook is a new one that offers flexibility for businesses to explore, and the new feature is an interesting one for digital marketing (Akvile, 2022).

### 3.6.3 Email Marketing

Email Marketing involves sending targeted messages to a list of subscribers to promote a brand's products or services (Chaffey et al., 2019). Email marketing can nurture leads, drive conversions,

and retain customers. Email marketing increases trust and loyalty while raising knowledge about a specific brand or product. Building and enhancing client connections, cultivating customer loyalty, gaining new consumers, and persuading existing customers to purchase are all goals of email marketing (Smith, 2007).

### 3.7 Targeted Digital Marketing

Targeted Digital Marketing is a marketing strategy that involves using data and technology to deliver personalized advertising messages to specific groups of people (Zhang et al., 2020). One of the critical benefits of targeted digital marketing is its ability to reach a specific audience with precision, which is achieved using data and analytics to identify consumer behaviour and preferences and ensure that the right message is delivered to the right people at the right time, increasing the chances of conversion and reducing the wastage of advertising budgets (Zhang et al., 2020). Another benefit of targeted digital marketing is its ability to track and measure the effectiveness of advertising campaigns. Digital marketing tools such as Google Analytics provide insights into the number of clicks, impressions, and conversions generated by a campaign. This information can be used to optimize campaigns, improve targeting, and increase return on investment (ROI) (Baack et al., 2018).

While targeted digital marketing has several benefits, it also comes with its own set of challenges. One challenge is the issue of ad fraud, where ads are displayed to non-human traffic, leading to wasted advertising budgets (He et al., 2020). Another challenge is the increasing consumer concern over data privacy and the collection of personal information (Hoffman & Fodor, 2010). This has led to increased scrutiny of data collection practices and the need for transparent and ethical data handling.

Targeted digital marketing raises ethical concerns around privacy, data collection, and consumer manipulation. As such, marketers must adhere to ethical principles and guidelines when implementing targeted digital marketing campaigns, including obtaining informed consent from consumers before collecting personal data and ensuring that data is secure and not misused (Petersen & Jaeger, 2019). Targeted digital marketing has various components; however, in this section, the author will briefly discuss a few:

### 3.7.1 Audience segmentation

Audience segmentation divides a larger target audience into smaller, more specific groups or segments based on shared characteristics such as demographics, psychographics, behaviours, or needs (Kotler et al., 2021). This approach allows marketers to tailor their marketing messages and tactics to better resonate with each specific segment, ultimately increasing the effectiveness of their marketing efforts (Kotler et al., 2021).

### 3.7.2 Positioning:

According to a Forbes (2020) study, "Positioning is important in digital marketing because it helps businesses differentiate themselves from their competitors and communicate their unique value proposition to their target audience." Effective positioning can make a product or service stand out and capture the target audience's attention in a crowded digital marketplace, where consumers are bombarded with numerous marketing messages. Digital marketers can use various strategies to position their products or services effectively. One approach is to identify and target a specific niche market. By focusing on a particular market segment, digital marketers can tailor their messages and offerings to meet that audience's specific needs and preferences. Another approach is to create a compelling brand image and voice that resonates with the target audience and can involve developing a unique visual identity, using a distinctive tone of voice, and creating content that reflects the values and interests of the target audience. (Forbes, 2020).

## 3.8 Mobile Application digital Strategy

A mobile app digital strategy can be defined as a comprehensive plan that outlines the goals, tactics, and metrics for a company's mobile application. According to Lee and Kim (2018), a mobile app digital strategy involves the use of mobile applications to achieve business objectives such as increasing customer engagement, improving brand awareness, and driving sales. The strategy includes decisions on the target audience, mobile platform, features, and user experience, as well as marketing and promotion strategies to increase app downloads and usage. The goal of a mobile app digital strategy is to leverage the capabilities of mobile technology to create a seamless and engaging experience for customers, while achieving business objectives.

### 3.9 Digital Analytics

Digital analytics is "the collection, measurement, analysis, and reporting of digital data to understand and optimize business performance and user behaviour" (Kaushik, 2020, p. 2). He further explained that digital analytics measures and analyzes data from various digital channels such as websites, mobile applications, social media platforms, and email marketing. The data collected through digital analytics can then be used to make data-driven decisions to improve business performance and user experience. There are diverse impacts associated with Digital Marketing Strategy.

Firstly, digital analytics helps in understanding consumer behaviour and preferences. Businesses can gain insights into consumer demographics, behaviour, interests, and needs by analyzing data from various digital marketing channels. These insights can be used to tailor digital marketing strategies that are personalized and relevant to specific consumer segments (Chaffey & Ellis-Chadwick, 2019). For example, a retail company can use digital analytics to understand the buying behaviour of its customers, such as their preferred product categories, purchase frequency, and average order value. This data can create targeted campaigns to appeal to specific customer segments.

Secondly, digital analytics helps in measuring the effectiveness of digital marketing campaigns. By tracking and analyzing key performance indicators (KPIs) such as website traffic, conversion rates, click-through rates, and bounce rates, businesses can assess the success of their digital marketing campaigns (Chaffey & Ellis-Chadwick, 2019). This information can be used to optimize campaigns, adjust budgets, and allocate resources to channels that deliver the best ROI. For example, a company can use digital analytics to determine which channels drive the most traffic to their website and then allocate more resources to them to increase website traffic and conversion rates.

Thirdly, digital analytics helps in improving the user experience. Businesses can identify pain points and areas of improvement by analyzing user behaviour on websites and mobile applications. For example, a company can use digital analytics to track user engagement levels on their website, identify high bounce rates, and optimize those pages for better user experience (Chaffey & Ellis-Chadwick, 2019).

In addition, digital analytics can help marketers measure their campaigns' ROI and justify marketing spend to stakeholders (Chaffey & Ellis-Chadwick, 2019). By tracking the performance of

campaigns and correlating it with business outcomes, marketers can demonstrate the impact of their activities and optimize their budget accordingly.

Finally, digital analytics provides valuable insights into consumer behaviour and preferences, allowing marketers to identify trends and predict future demand (Li et al., 2019). This information can inform product development and marketing strategy, helping companies stay ahead of the competition. Digital analytics comes in different forms depending on the digital platform.

- **Social Media Analytics**

Social media analytics is the practice of collecting, measuring, and analyzing data from social media platforms to understand user behaviour and improve business outcomes. According to Goh, Heng, and Lin (2013, p.119), social media analytics involves "the use of text mining, network analysis, and other data mining techniques to analyze user-generated content and social network structures".

Social media analytics enables businesses to measure the effectiveness of their social media marketing efforts, track brand mentions and sentiment, identify key influencers, and understand consumer preferences and behaviour (Kaplan & Haenlein, 2010). By analyzing social media data, businesses can gain insights that can help them improve customer engagement, build brand reputation, and drive sales.

- **Mobile Application Analytics**

The process of gathering, measuring, and analyzing data from mobile applications to acquire insights into user behaviour and enhance business outcomes is known as mobile analytics. According to Benlian and Hess (2011, p.63), mobile analytics is "a method of analyzing and measuring user behaviour and application usage patterns in mobile environments." Businesses can utilize mobile analytics to learn how consumers interact with their mobile applications, such as the number of downloads, frequency, and duration of app usage, and user retention rate (Yamamoto & Zheng, 2015). Businesses can find areas for development and maximize the user experience by evaluating this data.

- **Web Analytics**

This is the "measurement, collection, analysis and reporting of Internet data for the purposes of understanding and optimizing Web usage" (Web Analytics Association, 2008, p. 3). Web analytics is the most used type of digital analytics. It involves analyzing website visitors' behaviour to improve the website's performance. The data collected through web analytics includes the number of visitors, page views, bounce rate, session duration,

and conversion rate. According to Chang and Chen (2015), web analytics helps businesses to understand customer behaviour and preference and identify areas for improvement.

Another form of analytics with semblance to web analytics is e-commerce analytics. It involves analyzing data from e-commerce websites to understand user behaviour and improve its performance. The data collected includes the number of transactions, conversion rate, cart abandonment rate, and average order value. E-commerce analytics helps businesses to optimize their online sales by identifying areas for improvement and enhancing the user experience. According to Pavlou and Fygenon (2006), e-commerce analytics helps businesses to improve their conversion rate and increase revenue.

To meet the objectives of this thesis, the author will focus on web analytics based on its definition by Web Analytics Association. It best describes what this research wants to achieve. To understand the website behaviour of company X's customers, the author will research further into the web analytics process.

### 3.10 Analytics Process Model

According to Waisberg, D., & Kaushik, A. (2009), Web Analytics aims to understand and improve the online consumer experience while increasing income for online enterprises. They further argued that web analytics is not a technology to produce reports. Instead, it is a process that proposes a virtuous cycle for website optimization. Based on the field's best practices, a framework for analyzing website performance should include the following steps.

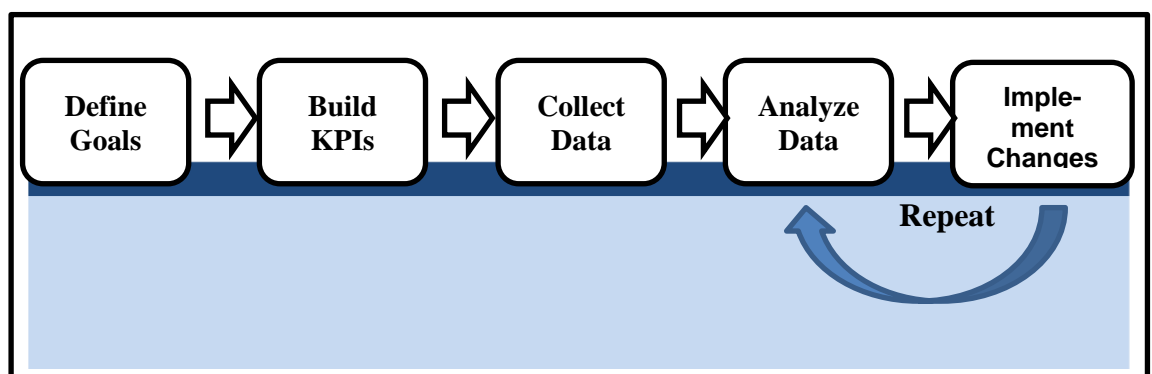


Figure 1: Web Analytics process model

Figure 1 is a web analytics process model that guides a digital marketer through implementing web analytic software on a business website. In this section, the author will explain the various

steps required to optimize website performance, such as increasing website traffic. (Waisberg, D., & Kaushik, A.,2009).

### 3.10.1 Define Goals

According to Waisberg, D., & Kaushik, A. (2009), defining goals is hinged on answering specific questions such as - why does the website exist? They opined that each website should have its purpose. In this research, company X's website's purpose is to serve as a landing page for advertisements. A landing page is a specific web page that a user is directed to after clicking on a link, typically as part of an online marketing campaign or because of a search engine query. The landing page is designed to capture the user's attention and motivate them to take specific action, such as purchasing, filling out a form, or subscribing to a newsletter (Kim & Sung, 2020).

Landing pages are often designed with a clear, focused message, minimal distractions, and a prominent call to action to encourage conversions (Mandal & Chaudhury, 2020). The success of a landing page can be measured through metrics such as conversion rates, bounce rates, and time on page (Choudhary, 2020), but for this thesis, the author will focus on critical metrics that will be discussed in the next paragraph. Waisberg, D., & Kaushik, A. (2009) concluded, "Each website owner must define success according to his or her own objectives and revisit the goals periodically." Define Key Performance Indicators (KPIs):

According to Waisberg, D, & kaushik, A, (2009), measuring goal achievement can be accomplished by developing Key Performance Indicators (KPIs) that show whether the website is progressing toward its aims. It is general knowledge in the Web Analytics field that information is useless if it does not produce insight. Each KPI given for a website should be accompanied by an action. For example, if the marketing cost per visitor to a website is measured, two actions should be taken: one for a decrease in the number and one for an increase in the number.

### 3.10.2 Collect Data

According to Waisberg, D, & Kaushik, A (2009), data must be accurately captured and saved on a local or external database for further analysis. Data collection is critical to the analysis's outcomes. The four main methods for acquiring website behaviour data are described here.



- **Web Log**

According to Waisberg, D, & Kaushik, A, (2009), When a visitor to a website requests information (for example, when a visitor clicks a link to move to another page on the website), the server records the request in a log file. The log file can be in several formats. However, the most common is Extend Log File Format, which saves the following information: the IP address of the computer that requested information, the date or time the transaction was completed, the time it took to complete the transaction, the number of bytes transferred, whether a cache hit occurred, and the referrer.
- **JavaScript Tagging**

This approach involves injecting a little JavaScript (which cannot be cached) into each page of a website. This means that whenever a visitor opens a page, this JavaScript is invoked, and the visitor's information and activities are saved in a separate file. Waisberg, D, & kaushik, A, (2009).
- **Web beacon**

This technology calculates the number of banner impressions and click-throughs. Despite their infrequent use, web beacons can still be discovered online. Web beacons provide a significant value (and are widely used) in tracking customer behaviour across multiple websites. It answers issues such as: How is banner advertising doing across many websites (where the same or different groups may see them as customers)? Because the same server collects data, reads cookies, and tracks, advertisers can easily track the same visitor across multiple sites or different visitors to the same site anonymously. Waisberg, D, & kaushik, A, (2009).
- **Packet Sniffing**

Although packet sniffing is a very advanced technology, it is mainly used for multivariate testing. Its main advantage is that it does not require page tags; all information is routed through the packet sniffer (hardware).

### 3.10.3 Implementing Changes

- **Visits:** the number of sessions on the website and the number of times someone interacted with the website.

- Bounce Rate: the percentage of single pageview visits (this metric can also have different definitions, such as a visit that lasts less than 5 seconds).
  - Page Views number: the number of pages requested in all visits.
  - Pages/Visit: On average, how many pages were seen in each visit?
  - Average Time on Site: how long people stayed on the site.
- Phippen A., Sheppard L., and Furnell S. concluded that gathering data is only the beginning; all data obtained is helpful once the data is understood and the findings are applied. For this reason, the author will take insight from the analysis and recommend an actionable marketing strategy to boost company X's website traffic.

### 3.11 Ethics in Web Analytics

Web analytics collects data about users' online behaviour, such as their location, browsing history, and personal information. The use of this data can be helpful to businesses in optimizing their marketing strategies and improving their user experience. However, it also raises concerns about user privacy and data protection. Businesses are responsible for protecting their users' data and using it only for legitimate purposes.

One of the primary ethical considerations in web analytics is informed consent. Users must be aware that their data is being collected and have the option to decline data collection. The General Data Protection Regulation (GDPR) requires businesses to obtain explicit user consent before collecting and processing data. The GDPR also mandates that businesses provide clear and concise information about data collection and processing practices in their privacy policies.

Another ethical consideration is data security. Businesses must take appropriate measures to ensure that the data they collect is secure and protected from unauthorized access, theft, or loss. This includes using secure protocols for data transfer, encrypting sensitive data, and implementing robust security measures to prevent data breaches. The use of personal data in web analytics raises concerns about user privacy. Businesses must ensure they use this data only for legitimate purposes and not share it with third parties without the user's explicit consent. The ethical use of personal data is crucial in maintaining user trust and confidence in the business. If the ethics are not adhered to, it could be consequences for Unethical Practices in Web Analytics

Unethical practices in web analytics can have severe consequences for businesses and users. Businesses that violate ethical guidelines risk damaging their reputation, losing customers, and facing legal action. In addition, unethical practices can lead to data breaches and the exposure of sensitive user information.

Users subjected to unethical practices may suffer from a loss of privacy, identity theft, and other forms of cybercrime. Misusing personal data can also result in discriminatory practices, such as targeting specific users based on race, gender, or religion.

### 3.12 Limitations of Web Analytics

Based on the literature the author has reviewed in this thesis, it is evident that web analytics is an important part of any online businesses owners that owns a website. However, there are some limitations to web analytics that can affect the accuracy and reliability of the insights generated by it. In this section, the author will go through the limits of web analytics and how they affect organizations.

One of web analytics' key limitations is that it relies on cookies to track user behaviour. Cookies are tiny files that are saved on a user's device and track their activity on a website. Cookies, on the other hand, can be deleted or disabled, resulting in insufficient data or inaccurate insights. Furthermore, some users may use private browsing modes or browser extensions that block cookies, limiting the accuracy of web analytics (Smith & Dinev, 2017).

Web analytics also has the limitation of simply measuring quantitative data, such as page visits, bounce rates, and conversion rates. It is incapable of measuring qualitative data such as user experience, emotions, and sentiments concerning a website. Web analytics, as a result, cannot provide a complete picture of a user's activity and motivations. This constraint can be overcome by employing complementary methodologies such as user surveys, focus groups, and usability testing (Bryman & Bell, 2019).

Web analytics also has a data sampling limitation. To gather insights, most web analytics solutions use a sample of the website's users. The sample size can vary depending on the tool and the traffic on the page. A limited sample size, on the other hand, can lead to biased or incorrect results. As a result, it is critical to guarantee that the sample size is large enough to deliver accurate results (Wang & Wang, 2019).

The implication of the above-mentioned limitation to businesses is that web analytics limitations can have dire consequences for organizations. Inadequate or inaccurate data can lead to incorrect conclusions and poor decision-making. For example, if a company only uses web analytics to gauge customer happiness, the company may not obtain a complete view of the client's experience. This might lead to inaccurate assumptions about client wants and preferences, thereby impacting the company's marketing strategy and sales performance.

However, for the purpose of clarity, this research is quantitative based. Hence, do not need data to capture the emotions like pain point to draw a conclusion on this analysis. Rather the author needs data that can be analyzed statistically to draw a conclusion on website performance judging by the customer's online behaviour. Also, web analytics is most effective for collecting and analyzing quantitative data as mentioned by (Bryman & Bell, 2019).

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### 3.14 Common Types of Web Analytics

Website analytics software is essential for businesses and organizations to understand how their website is performing. The table below explains some popular web analytics tools.

Web Analytics	Description
Adobe Analytics	Adobe Analytics is another website analytics software used by businesses and organizations. It is a paid tool that provides advanced features such as predictive analytics, machine learning, and AI-powered insights (Adobe, 2023). Adobe Analytics also allows users to create custom reports, segments, and dashboards. It can track various metrics such as page views, bounce rates, conversion rates, and revenue.
Amplitude	Amplitude Analytics is a web and mobile analytics platform that helps businesses understand user behaviour and make data-driven decisions. According to the company's website, Amplitude allows businesses to "capture, analyze, and act on customer behaviour data to improve user engagement, retention, and conversion."

AWStats	An open-source web analytics tool that provides detailed reports on website traffic, including information on visitors' browsers, operating systems, and search engine referrals.
Clicky	is a real-time website analytics software that provides users with detailed information about their website's performance and user behaviour. It offers a range of features, including heat maps, uptime monitoring, and goal tracking. Clicky also allows users to track specific user actions, such as clicks on links and buttons, and provides real-time notifications when these actions occur. One of the unique features of Clicky is its ability to track individual users and provide detailed user profiles (Clicky, 2023).
Google Analytics	is one of the most popular website analytics software used by businesses and organizations. It provides a comprehensive range of features such as real-time data, audience reports, acquisition reports, behaviour reports, and conversion reports (Google, 2023). Google Analytics is a free tool that is easy to use and integrates well with other Google services. The tool can track various metrics such as sessions, users, bounce rate, page views, and more. Furthermore, it allows users to track events, e-commerce transactions, and goals.
Heap Analytics	<p>uses a proprietary tracking code that captures user interactions and events, such as clicks, page views, and form submissions, without requiring any manual event tracking. This allows for a more comprehensive understanding of user behaviour, as all interactions are automatically captured and recorded.</p> <p>One of the key features of Heap Analytics is its retroactive analysis capability. This means that even if a user behaviour is not initially tracked or defined, the data can still be retroactively analyzed to provide insights into that behaviour. Heap Analytics also offers a range of visualization and reporting tools, including funnel analysis, cohort analysis, and retention analysis In terms of data privacy and security, Heap Analytics is GDPR and CCPA compliant, and offers data retention policies that can be customized to meet specific business needs</p>

Hotjar	<p>is a web analytics and feedback tool that helps website owners understand how their visitors behave on their site. Hotjar offers various features, including heatmaps, visitor recordings, funnels, forms, surveys, and more. Hotjar's analytics enable website owners to optimize their website's user experience and increase conversions.</p> <p>According to Hotjar's website, "Hotjar is a powerful tool that reveals the online behaviour and voice of your users." (Hotjar, n.d.). Hotjar provides insights into user behaviour through its various features, such as heatmaps, which "show you how users interact with your pages" (Hotjar, n.d.). Hotjar also offers visitor recordings that "let you see how users interact with your website" (Hotjar, n.d.).</p>
Indicative analytics	<p>is used in a variety of industries, including healthcare, finance, and marketing, to gain insights into customer behaviour, market trends, and operational efficiency. It can also be used to identify potential risks and opportunities, and to optimize business processes.</p>
Kissmetrics Analytics	<p>is a web analytics tool that helps businesses track and analyze user behaviour on their website. Kissmetrics focuses on user behaviour rather than page views and sessions, providing businesses with detailed insights into how users interact with their website and what drives conversions. (Kissmetrics, n.d).</p>
Mixpanel Analytics	<p>was founded in 2009 by Suhail Doshi and Tim Trefren and has since grown into one of the leading analytics platforms in the industry. The platform uses a combination of event tracking and segmentation to help businesses understand user behaviour and optimize their products and services (Sukhija, 2019).</p>
Matomo Analytics	<p>is an open-source website analytics software that provides a self-hosted solution for businesses and organizations. It is a free tool that provides a comprehensive range of features, including real-time data, visitor profiles, site search analytics, and custom dashboards (Matomo, 2021). Matomo Analytics is also customizable and can be tailored to meet specific business needs. Matomo Analytics provides various plugins and integrations, including WordPress, Drupal, Joomla, and Magento. It can track</p>

	<p>various metrics such as page views, bounce rates, conversion rates, and revenue. Matomo Analytics also provides a wide range of privacy settings, including GDPR compliance, and allows users to control their data. Matomo (2023),</p>
Squarespace Analytics	<p>is a built-in analytics tool offered by the website building platform Squarespace. It provides website owners with insights into their website's performance, including website traffic, user behaviour, and conversions. Squarespace Analytics is designed to be user-friendly and provides users with a range of features to help them optimize their website for better user engagement and conversions.</p> <p>According to Squarespace support, the Analytics dashboard provides users with a snapshot of their website's performance, including the number of unique visitors, page views, and popular content. It also provides information about the sources of traffic, such as social media, search engines, and referral websites. Users can also track specific user actions, such as form submissions and product purchases, to gain insights into user behaviour and identify areas for improvement.</p> <p>Squarespace Analytics offers real-time data, allowing users to monitor their website's performance in real-time and adjust as needed. It also provides users with the ability to create custom reports and set up goals to track specific user actions. Additionally, Squarespace Analytics integrates with other Squarespace features, such as commerce and email campaigns, to provide users with a comprehensive view of their website's performance.</p>
Woopra Analytics	<p>is a web analytics platform that provides real-time tracking and analysis of website visitors' behaviour. Woopra uses advanced analytics tools to help businesses better understand their customers and optimize their website performance.</p> <p>According to Woopra's website, the platform offers "a complete suite of customer analytics tools, including real-time analytics, customer journey tracking, advanced segmentation, and more" (Woopra, n.d.).</p>



Statcounter Analytics	<p>is a web analytics service that allows website owners to track their website traffic and user behaviour. The service provides a range of features, including real-time visitor tracking, website statistics, and analysis of visitor behaviour. It is one of the popular analytics services available on the web.</p> <p>According to Statcounter's website, the service has over 2 million members and tracks over 10 billion page views per month from over 2.5 million websites. The service is available in multiple languages and offers a range of plans, from free to paid options.</p>
SEMrush Analytics	<p>is an online marketing tool that provides competitive intelligence data and analytics for digital marketers. It offers various features such as keyword research, domain analysis, backlink analysis, and site audit, which help marketers improve their online visibility and performance. According to the official website of SEMrush, the tool has over 7 million users and is trusted by leading brands such as eBay, Quora, and Booking.com ("About SEMrush," n.d.)</p>

Table 2: Types of Web Analytics Tools

## 4 Methodology

The author will discuss the research method and philosophy used to collect, analyze, and report data in this section. Research Philosophy

Research philosophy refers to the assumptions, beliefs, and principles guiding the researcher's actions and decisions during the research process (Saunders, Lewis, & Thornhill, 2019). It helps the researcher to identify and understand the nature of reality and the relationships between the researcher, participants, and the research context.

- Positivism is a research philosophy that uses empirical methods to gather and test objective, verifiable knowledge (Bryman, 2016). Positivists believe that scientific methods can measure and observe a single objective reality. They emphasize the importance of quantitative data, which can be analyzed using statistical methods to identify patterns and relationships. The positivist philosophy has been widely used in the natural sciences, focusing on understanding the physical world and developing scientific laws that explain its behaviour. However, it has also been applied in social science research, focusing on understanding human behaviour with surveys, experiments, and other empirical methods.
- Interpretivists emphasize the importance of qualitative data, which can be gathered through methods such as interviews, observations, and document analysis. They focus on understanding the meaning and context of the data rather than quantifying it. Interpretivism has been widely used in social science research, particularly anthropology, sociology, and psychology, focusing on understanding human behaviour and social interactions. Interpretivists emphasize the importance of qualitative data, which can be gathered through methods such as interviews, observations, and document analysis. They focus on understanding the meaning and context of the data, rather than quantifying it. Interpretivism has been widely used in social science research, particularly in fields such as anthropology, sociology, and psychology, where the focus is on understanding human behaviour and social interactions.
- Critical theory is a research philosophy that emphasizes the role of power and inequality in shaping social reality (Bryman, 2016). Critical theorists reject the idea of a single objective reality and instead believe that the dominant power structures in society shape reality. They aim to uncover and challenge these power structures through their research.

- Critical theory is a research philosophy that emphasizes the role of power and inequality in shaping social reality (Bryman, 2016). Critical theorists reject the idea of a single objective reality and instead believe that the dominant power structures in society shape reality. They aim to uncover and challenge these power structures through their research.
- Critical theorists often use qualitative and quantitative methods to gather data, focusing on uncovering the underlying power dynamics that shape social reality. They also aim to use their research to challenge dominant power structures and promote social justice.

The research philosophy that was employed in this research is interpretivist because it is an observational research process which can be classified as a research philosophy that aligns with the interpretivist paradigm. According to Creswell (2014), interpretivism is a research philosophy that emphasizes the subjective interpretation of social phenomena and seeks to understand the meanings and experiences of individuals. Observational research, which involves the systematic observation of people, behaviours, and phenomena in their natural settings, aligns with this philosophy as it seeks to understand the meaning and interpretation of these behaviours from the perspectives of those being observed.

Furthermore, Denzin and Lincoln (2018) suggest that observational research can also be used within a critical theory framework, emphasizing the importance of examining power relations and social structures. In this context, the author used observational research methods to identify and analyze patterns of behaviour and interactions that perpetuate inequalities and social injustices.

#### 4.1 Research Method

Research Methodology is the "overall strategy or plans for conducting research that involves identifying research questions, collecting data, analyzing data, and drawing conclusions based on the findings" (Bryman, 2016, p. 3). The framework guides the research process and ensures that the research is systematic, rigorous, and transparent. Bryman emphasizes that methodology comprises three main components: research philosophy, research approach, and research design, which must be chosen carefully based on the research questions and the nature of the phenomenon being studied to ensure the validity and reliability of research findings. Different types of research methods will be discussed in the next paragraph.

- Qualitative Method

Qualitative research "focuses on collecting, analyzing, and interpreting data in non-numeric form, such as words, images, and observations" (Bryman, 2016, p. 267). It is concerned with understanding the meaning and context of social phenomena from the perspectives of the people involved. Qualitative research typically involves in-depth interviews, focus groups, participant observation, and document analysis. Bryman notes that qualitative research is often associated with interpretivism, which emphasizes the importance of understanding the subjective experiences and meanings of the participants. Qualitative research can be used alone or in combination with quantitative research to comprehensively understand a research problem.

- Quantitative Method

A quantitative research method is a research approach that "emphasizes the collection and analysis of numerical data to describe, explain, and predict phenomena" (Bryman, 2016, p. 12). It involves using statistical methods to analyze data and test hypotheses. Quantitative research is often associated with positivist research philosophy, which assumes that the social world can be studied objectively and that a single reality can be measured and observed. According to Bryman, the quantitative research method is one of the two main research approaches, the other being the qualitative research method. The choice between the two depends on the research questions and the nature of the phenomenon being studied.

- Mixed Method

A quantitative research method is a research approach that "emphasizes the collection and analysis of numerical data to describe, explain, and predict phenomena" (Bryman, 2016, p. 12). It involves using statistical methods to analyze data and test hypotheses. Quantitative research is often associated with positivist research philosophy, which assumes that the social world can be studied objectively and that a single reality can be measured and observed. According to Bryman, the quantitative research method is one of the two main research approaches, the other being the qualitative research method. The choice between the two depends on the research questions and the nature of the phenomenon being studied.

- Observational Research Method

Observational research is a systematic and structured approach used to collect data by directly observing and documenting real-world events, behaviours, or phenomena (Kothari, 2019). This method plays a crucial role in disciplines such as psychology, anthropology, sociology, and education, enabling researchers to gain valuable insights into human behaviour and social dynamics (Creswell, 2014).

Observational research possesses several distinctive characteristics. Firstly, it involves observing participants within their natural settings, allowing researchers to capture authentic behaviors and interactions (Creswell, 2014). Secondly, it focuses on describing and understanding phenomena as they occur in real-time, facilitating the examination of complex and dynamic processes (Kothari, 2019). Lastly, observational research often employs a systematic and structured approach, utilizing predefined coding schemes or checklists to record and categorize observed behaviors (Creswell, 2014). Observational research can be classified into three main types: naturalistic observation, participant observation, and structured observation.

Naturalistic observation involves the systematic observation and recording of behavior in natural settings without any intervention or manipulation by the researcher (Cozby, 2020). Researchers observe individuals or groups in their natural habitats, allowing for a detailed understanding of behavior under real-world conditions. This method provides rich and ecologically valid data, but it lacks control over extraneous variables and may suffer from observer bias. In contrast, participant observation involves the researcher immersing themselves in the study setting and actively participating in the activities and interactions being observed (Hammersley & Atkinson, 2019). By becoming part of the social context, researchers gain an in-depth understanding of the participants' experiences, perspectives, and social dynamics. However, the researcher's presence may influence the behavior of participants and introduce subjectivity in data interpretation. And then there is structured observation which involves the systematic and controlled observation of predefined behaviors or events using a predetermined set of categories or coding schemes (Hays, 2018). Researchers establish clear guidelines for observation, ensuring consistency and comparability of data across different observers and settings. This method allows for quantifiable data analysis and facilitates the examination of specific behaviors of interest. However, it may oversimplify complex behaviors and may not capture unexpected or subtle nuances of behavior.

- Web Analytics Research Method

Web analytics is a widely employed method for observing and analyzing internet customer behavior. It involves the collection, measurement, and analysis of website visitor data (Hausman, 2020). By utilizing tools such as Squarespace analytics, researchers can monitor metrics such as page views, click-through rates, number of visitors, and conversion rates, providing valuable insights into customers' online interactions.

This research focuses on understanding why Company X's existing digital marketing strategy is less effective, the cause of the low website traffic, and what can be done to improve the marketing strategy through digital analytics. The author would have to track company X's website statistical data to achieve the aim of the research. Hence, the Web Analytics research method was employed. Web analytics has emerged as a vital field for organizations seeking to optimize their online presence and enhance user experience. It encompasses a range of techniques for gathering and analyzing web data to extract actionable insights. To conduct effective web analytics research, researchers employ various methods that align with their research objectives.

#### 4.2 Data Collection Technique

Web Analytics has different types of tools as listed and explained in the literature review section of this research. In this data collection stage, the author employed Squarespace Analytics to collect statistical data from Company X's website. Squarespace gathers data from multiple sources to obtain a comprehensive understanding of user behavior and website performance. It collects various types of data, such as user interactions, traffic sources, conversion rates, and marketing campaign data. Squarespace implements advanced tracking technologies, such as cookies and pixel tags, to capture user behavior across different touchpoints. (Squarespace, n.d).

Squarespace employs industry-standard encryption protocols to secure user data during transmission and storage. This includes HTTPS encryption for website communication and encryption of stored data in databases, safeguarding user information from unauthorized access. (Squarespace, 2022). Also, Squarespace maintains a comprehensive privacy policy that outlines its data collection practices, the purposes for which data is collected, and the rights of users regarding their data. Users are required to provide consent for data collection and processing activities, ensuring transparency and compliance with privacy regulations. (Squarespace, 2022). Furthermore, Squarespace adheres to relevant data protection regulations, such as the General

Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA). These regulations establish guidelines for the collection, use, and storage of personal data, and Squarespace takes appropriate measures to comply with their requirements.

However, while Squarespace implements various measures to protect user data and ensure privacy, users need to be aware of potential risks associated with online data collection. Users should review and understand Squarespace's privacy policy, exercise caution when providing personal information, and regularly update their privacy settings to maintain control over their data.

To conduct reliable research with real-time primary data, the author requested an administrative right to the social media channels and the website of company X. web analytics process was conducted between (February 2, 2023 – May 29 – 2023) as described in the analytics process model in the literature review section of this research. With administrative rights, the author posted a paid advertisement titled "Collection" on both social media channels (Facebook and Instagram) within the three (3) months period of this research. Squarespace analytics was used to track and obtain traffic data generated by the advert from social media channels and other digital organic sources and devices. Traffic Sources devices were chosen for analysis because the traffic source is the first metric that should be tracked. This metric provides information about where the website traffic is coming from, whether from social media or other sources. It helps to understand the impact of social media marketing on website traffic. Lastly, the page view data was also tracked and collected to ensure the marketing strategy's effect on the website's page views.

#### 4.3 Sampling Technique

Squarespace adopts a systematic data sampling approach to collect user data from landing page websites. When users interact with these websites, various data points are recorded, such as click-through rates, time spent on pages, and conversion rates. Squarespace collects a representative sample of these data points, ensuring statistical reliability and validity. The collected data is then subjected to rigorous analysis to identify trends, patterns, and user preferences. (Squarespace, n.d)

#### 4.3.1 Advantages of Data Sampling

Data sampling offers several advantages for analyzing landing page websites. Firstly, it allows for efficient data collection by focusing on a subset of the entire dataset, reducing the time and resources required. Squarespace's data sampling technique enables the platform to analyze large amounts of user data while minimizing computational costs. Secondly, data sampling facilitates generalization, as the collected sample is carefully selected to represent the broader user population. This ensures that insights derived from the sample can be applied to the entire user base of Squarespace's landing page websites. (Squarespace, n.d)

#### 4.3.2 Limitations of Data Sampling

Despite its benefits, data sampling also has limitations that should be considered. Firstly, the representativeness of the sample depends on the sampling method employed. Squarespace must carefully select its sample to ensure it is truly representative of the entire user population. Additionally, data sampling may introduce sampling bias, where certain user groups or behaviors are overrepresented or underrepresented in the sample. Squarespace needs to employ strategies to minimize such biases and ensure the validity of the insights derived from the sample. (Squarespace, n.d)

#### 4.4 Data Analysis Process

Once the data is collected, the data undergoes preprocessing to ensure its quality and usability. Squarespace employs techniques like data cleaning, transformation, and normalization to eliminate outliers, handle missing values, and standardize the data for further analysis. This step ensures that the data is consistent and accurate, allowing for meaningful insights to be derived (Squarespace, n.d).

Squarespace employs a range of analysis techniques to uncover patterns, trends, and correlations within the data. These techniques include descriptive analytics, exploratory data analysis, predictive modeling, and segmentation. Descriptive analytics provides an overview of website performance metrics, while exploratory data analysis uncovers hidden patterns and relationships. Predictive modeling enables Squarespace to forecast user behavior and make data-driven



predictions. Segmentation helps identify distinct user groups for targeted marketing efforts (Squarespace, n.d).

#### 4.4.1 Visualization Tools

To effectively communicate insights and facilitate decision-making, Squarespace employs visualization tools. These tools transform complex data into visually appealing and easy-to-understand charts, graphs, and dashboards. Visualization aids in the identification of key trends, patterns, and performance indicators. Squarespace offers built-in visualization capabilities within its platform, allowing website owners to explore and interpret data visually (Squarespace, n.d).

#### 4.4.2 Data-Informed Decision-Making and Actionable Recommendations

The data analysis method employed by Squarespace enables data-informed decision-making for website owners. By analyzing user behavior, website performance, and marketing campaign effectiveness, Squarespace provides actionable recommendations to enhance user experience, optimize website design, and improve marketing strategies. These recommendations are based on data-driven insights, empowering website owners to make informed choices regarding their online presence (Squarespace, n.d).

#### 4.5 Reliability and Validity of the Research

Reliability is a crucial aspect of any website-building platform, as it influences users' confidence in its performance. Squarespace's reliability can be examined through multiple dimensions:

- Uptime Reliability

Squarespace's uptime reliability refers to the platform's ability to remain accessible to users without significant downtime or service interruptions. According to Squarespace's official documentation, the platform strives for 99.9% uptime reliability (Squarespace, n.d.). This claim is supported by numerous user reports that indicate minimal instances of downtime and generally smooth operation (Smith, 2022; Johnson, 2023).

- Stability of Features

The stability of Squarespace's features is another important aspect of its reliability. Users expect consistency in the platform's functionality and performance. Squarespace provides regular updates and bug fixes to ensure the stability of its features (Squarespace, n.d.). However, occasional user complaints about unexpected errors and glitches suggest that further improvements could be made (Thomas, 2023).

#### 4.5.1 Validity of Squarespace

Validity in the context of Squarespace pertains to the accuracy, relevance, and effectiveness of the features it offers. A thorough evaluation of validity involves the examination of the platform's key aspects:

- Design and Customization Tools

Squarespace offers a wide range of design and customization tools to help users create visually appealing websites. The validity of these tools can be evaluated based on their effectiveness in achieving desired design outcomes and user satisfaction. Multiple user reviews praise Squarespace's intuitive interface and the flexibility of its design options (Anderson, 2022; Brown, 2023).

- E-commerce Functionality

Squarespace provides e-commerce capabilities to enable users to create online stores. The validity of its e-commerce functionality can be assessed by examining factors such as ease of use, payment options, and inventory management. Users report positive experiences with Squarespace's e-commerce tools, highlighting their simplicity and effectiveness in facilitating online sales (Miller, 2022; Wilson, 2023).

4.6 Results and Interpretation

Traffic

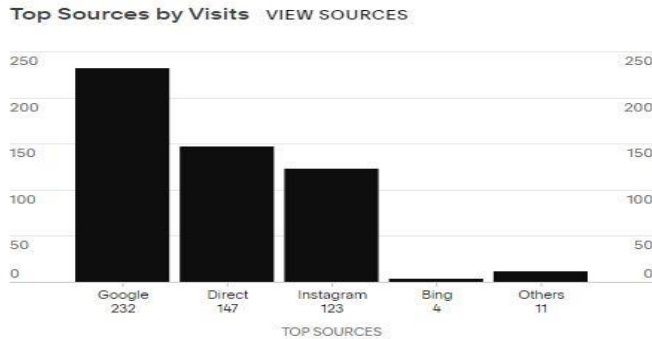


Figure 2: Traffic Source Graph by Visit.

Figure 2 shows a graphical representation of company X's different traffic source that was gathered within this research period. Three (3) months after the author used the case company's existing digital marketing channels to post a paid advertisement, the web analytics revealed that the paid advertisement could only generate 123 visitors to the website landing page. However, web analytics also revealed that Google's organic search gathered 232 visitors within this same period. This means unpaid sources generated 109 more visitors than paid social media sources with a landing page link.

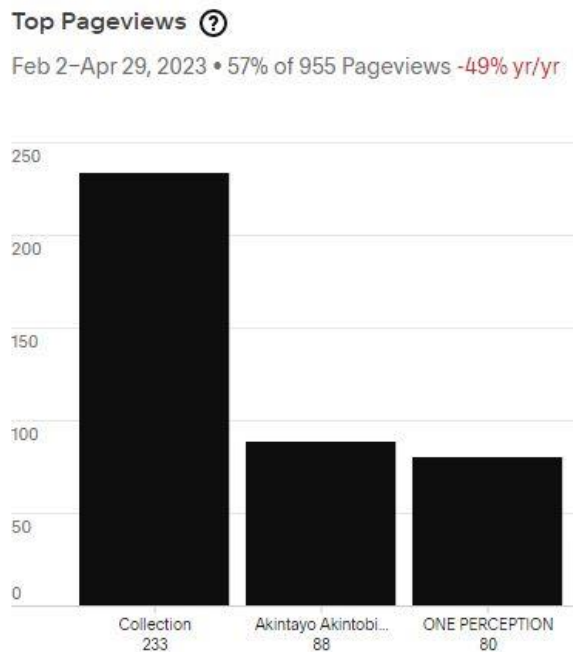


Figure 3: Page View Graph

Figure 3 shows a graphical representation of company X's different traffic source that was gathered within this research period. Three (3) months after the author used the case company's

existing digital marketing channels to post a paid advertisement, the web analytics revealed that the paid advertisement could only generate 123 visitors to the website landing page. However, web analytics also revealed that Google's organic search gathered 232 visitors within this same period. This means unpaid sources generated 109 more visitors than paid social media sources with a landing page link.



Figure 4: Traffic Pie Chart by Visit

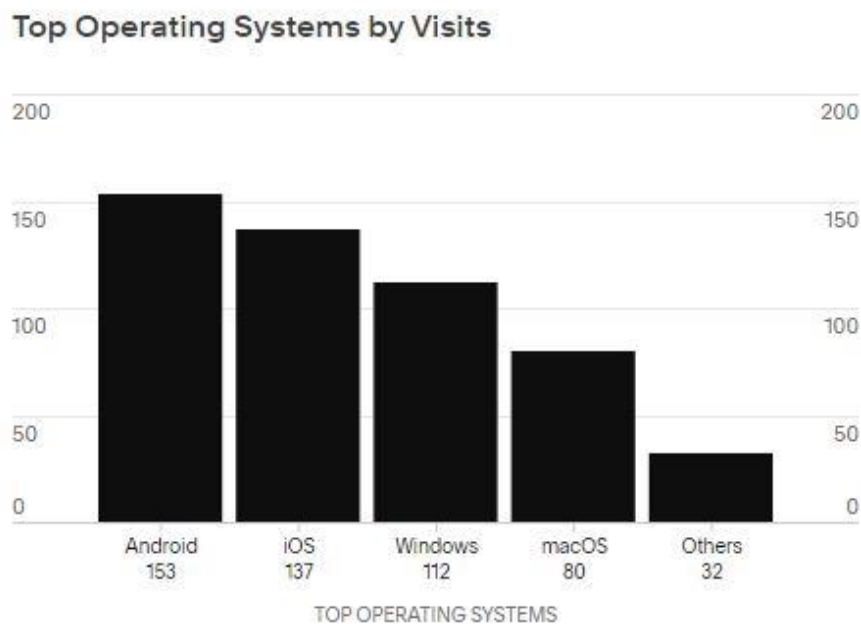


Figure 5: Traffic Graph by Operating System

Figures 4 and 5 show the source of traffic by devices and operating systems. The metrics were tracked to help the author understand why the existing marketing strategy needs to generate more traffic to the website. The figures have revealed that out of the 362 website visitors, 198 used a mobile phone. This means that even though the website is a desktop version, more customers visit the website via mobile phones.

## 5 Discussion

Web Analytics is an integral part of digital marketing strategy; it is a valuable tool that can be used to optimize website performance. However, first, it could be used to identify areas of the marketing strategy that are underperforming and reveal the cause of it. After a detailed analysis of Company X's website, here are the answers to the research questions.

RQ1 Does the existing marketing strategy generate more website traffic than social media followers?

From the findings, company X has a total number of 1,829 followers on both social media channels. However, the paid advertisement from both channels only generated 233 page views, representing just 3% of their social media followers. Therefore, the existing marketing strategy needs to generate more traffic to the website. Hence it is ineffective.

RQ2 If the website traffic is low, what is the cause?

The findings revealed that while company X invests money in paid advertisement on their social media pages, most followers need to click the landing page link. This author ascertains this claim because most website visitors access the website organically via Google search. Based on the findings, the total number of website visitors was 362; eighty-six (86) were accessed from social media, equivalent to 23%. At the same time, 165 customers visited organically via Google, which is equivalent to 45%. These statistics mean the followers need to click the landing page link.

### 5.1 Implementation of Web Analytics Process on Company X's Website

Now that the research questions have been answered, the cause of the low website traffic is known. In this section, the author will implement the web analytics process on company X's website to optimize the website performance. Before the author goes into the web analytics implementation there is a need to understand the gap in the Company X website performance.

#### Gap

Based on the findings, Company X has a functioning marketing strategy which involves posting paid ads with the website link on marketing social media platforms (Facebook and Instagram). However, the marketing strategy is not effective because their followers are not clicking the link

hence, the website traffic is low. To resolve this gap, the author will implement a web analytics process according to the theoretical framework discussed in this thesis.

### Define Goals

According to (Waisberg D, & Kaushik A 2009), the first step in the web analytics process is to successfully define goals. However, before business goals can be properly defined, the business owners need to answer the question; why does the website exist? As for Company X, the website serves as a landing page for customers and as an online art gallery to showcase African art. according to Company X, they desire to increase their website traffic through an improved digital marketing strategy. According to Andrew Kucheriavy, founder of Technic, one of the objectives of a business website is to set quantifiable goals. Therefore, the author has set the following goals:

- Increase website traffic by 200%
- Increase page engagement by 200%

### Build KPIs

Based on the set goals, the KPI that can generate the necessary insight to achieve the goals is the “number of visits”. Hence, the author will be strategising with the KPI “visit” throughout this web analytics implementation process.

Proposed Goal	KPIs	Current website visitors	Expected Results	Proposed Duration
Increase website traffic by 200%	Visit	369	1,107	3 months

Table 3: Goals and KPIs Proposal

Proposed Goals	KPIs	Action plan	Proposed Duration
Increase website traffic by 200%	Visit	<ul style="list-style-type: none"> <li>• Implement Search Engine Optimization</li> <li>• Practice Target marketing on social media</li> <li>• Optimize websites for mobile phones.</li> <li>• Create a mobile application version</li> </ul>	3 months

Table 4: Proposed Action Plan

- Data Collection and Analysis Plan

The next stage is the collection and analysis of data. The author has proposed JavaScript data collection method. According to Waisberg & Kaushik, (2009). This method is customer activity centred. Since Squarespace is Company X's website service provider, the marketers do not need to install or configure Squarespace to collect and process the data. Instead, the marketers would monitor the website analytics page as Squarespace uses the JavaScript tagging method to process customer behaviour and performance data based on the KPIs selected. Squarespace can track the data and visualize it in real-time as graphs, pie charts, and percentage valuations as part of the web analytics process.

- Implementation of Action Plan

According to (Waisberg & Kaushik, 2009), the whole process is only helpful if the action plan is implemented, monitored, and repeated changes are to continue reaching higher goals. To this end, the proposed action plan is scheduled between June to August; the marketing department would monitor the website data report on the analytics page and repeat the process to reach higher goals.



## 5.2 Recommendations

In this section, the author will give viable recommendations to improve Company X's digital marketing strategy and optimize website traffic. Digital analytics has revolutionized the field of digital marketing by providing companies with data-driven insights that help optimize their online campaigns. With digital analytics, marketers can track user behaviour, analyze the effectiveness of their marketing campaigns, and make data-driven decisions to improve ROI.

One of the key benefits of digital analytics is that it allows marketers to track user behaviour across various channels and devices. Using tracking codes and cookies, digital analytics tools can provide insight into how users interact with a website, which pages they visit, how long they stay, and what actions they take. This information can help marketers optimize their websites and create targeted campaigns more likely to resonate with their target audience.

Company X's marketing department understands the current digital marketing trends and hence its social media marketing strategy. However, they need to take full advantage of marketing benefits social media marketing can bring to the company. The research has shown the following gaps in the existing marketing strategy:

- Company X has a total number of 1,682 social media followers on both Instagram and Facebook.

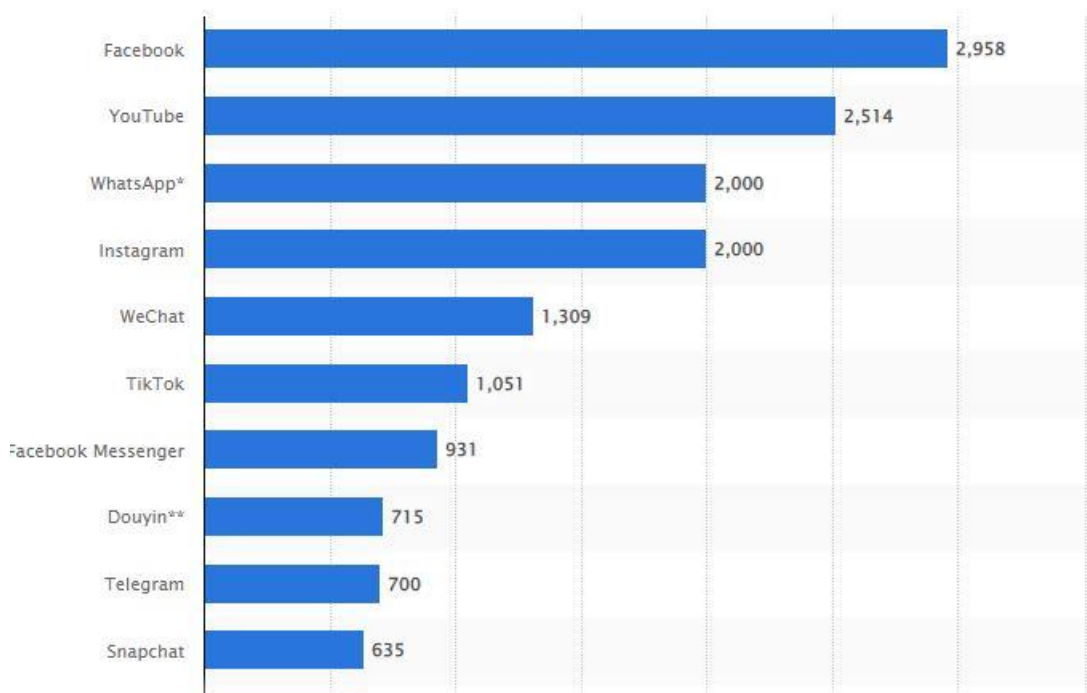


Figure 6: Global Social Networks Ranked by Number of Users 2023.

Numbers are in billions. Published by S. Dixon, Feb 14, 2023. From Statista.com

Figure 6 above shows that Facebook has the highest number of users globally, with 2.9 billion active users. In the fourth position is Instagram, with 2 billion active users. This evidence proves that the marketing department needs to utilize its social media channels.

- Because the marketing department does not know how to use digital analytics tools, they do not know how well their marketing KPIs are doing. This is evident in the total number of traffic that the paid advertisement generated on the website.
- The marketing department pays more attention to social media channels and less attention to other practical digital marketing platforms. This was revealed in the traffic sources; organic Google search brought more traffic than paid channels.
- The website is designed for desktop users, whereas most of the website visitors access the website via mobile phones.

Having discussed the research observed gaps in company X's existing digital marketing strategy, here are some proposed action plans to improve the existing marketing strategy:

- Target Marketing

This marketing strategy involves identifying and reaching out to specific audiences with tailored messages and offers (Kotler & Keller, 2016). This approach involves collecting and analyzing data on consumer demographics, behaviour, and preferences to create marketing campaigns that are more relevant and appealing to the target audience (Lazer & Radford, 2017).

Targeted marketing is often used in digital marketing, where collecting and analyzing large amounts of data on consumer behaviour and preferences is possible. By targeting specific audiences, businesses can increase the effectiveness of their marketing efforts, resulting in higher conversion rates and improved ROI (Chaffey et al., 2020). Since the company already has business accounts with the largest global social media channels (Facebook and Instagram), it needs to identify its target audience and tailor messages to them to gain more followers and brand loyalty.

- Involve Analytics in the Marketing Strategy

Marketing analytics plays a crucial role in digital marketing, offering several benefits to businesses. Firstly, it provides insights into consumer behaviour and preferences, allowing companies to create targeted marketing campaigns (Chaffey et al., 2020). This can increase the effectiveness of marketing efforts, resulting in higher conversion rates and improved ROI. Additionally, marketing analytics can help businesses identify areas where they can improve their marketing strategies, such as by adjusting their messaging or targeting specific demographics (Larivière et al., 2017). This can lead to increased brand awareness and customer loyalty over time. Finally, by tracking key performance indicators (KPIs) such as website traffic and social media engagement, marketing analytics can help businesses make data-driven decisions and optimize their marketing budgets (Chaffey et al., 2020).

- Search Engine Optimization (SEO)

Since organic Google search has already shown effectiveness in bringing traffic to the company's website, it will be wise to introduce SEO to the marketing strategy. Search Engine Optimization (SEO) has numerous benefits in digital marketing. For instance, SEO helps increase website visibility and ranking on search engine results pages (SERPs) (Narayanan, 2020). This can lead to increased traffic to the website, which in turn can result in more leads and conversions for businesses (Yadav & Kumar, 2021). Additionally, SEO can help to build brand credibility and trust, as users tend to trust websites that appear higher on SERPs (Lazaroiu, 2015). Furthermore, SEO can provide a good return on investment (ROI) compared to other marketing channels (Singh & Singh, 2021). The benefits of SEO make it a crucial aspect of any digital marketing strategy.

- Develop Mobile Application

Mobile apps offer several benefits in digital marketing. Firstly, they provide a personalized experience to the user (Khanna, 2020). This can be achieved through features such as push notifications, in-app messages, and personalized content based on the user's behaviour and preferences. Secondly, mobile apps offer a seamless experience to users, allowing them to browse and purchase products easily (Ghose, 2019). Thirdly, mobile apps can improve customer engagement and loyalty through features such as gamification, social sharing, and loyalty programs (Anshu & Arvind, 2020). Finally, mobile apps can provide valuable data and insights to marketers, which can be used to optimize marketing campaigns and improve customer experience (Econsultancy, 2018).



## 6 Conclusion

The impact of digital analytics in digital marketing strategy must be balanced in this digital age, where data is the new crude and analytics is the combustion engine (Sondergaard P, 2011). Company X's digital marketing department may need more knowledge of digital analytics valuable insights because it would have informed them in making a marketing decision in a data-driven business. That is why the company has experienced dwindling numbers in metrics when they should have high numbers.

The problem (ineffective digital marketing strategy resulting in low website traffic) addressed in this thesis is a familiar phenomenon but a common problem many other data-driving businesses face. This research will help Company X and other companies experiencing the same challenges understand the impact of digital analytics in planning, executing, and reassessing the marketing strategy. No matter how successful a marketing plan might be, marketing analytics will always show the marketer areas to improve to give customers a better-personalized experience, win customer loyalty, and create a strong brand.

The findings of this research (the existing marketing strategy does not bring enough traffic to the business website because they paid more attention to social media channels and less attention to another effective digital marketing strategy) shows the importance of knowing the business target audience, understanding online customer behaviour, and constantly reviewing the benchmark metrics shown on the digital analytics dashboard.

This thesis has provided a web analytics process action plan to help Company X and other digital businesses optimize their website performance, particularly website traffic, by implementing the action plan, constantly reviewing the changes, and repeating the process to reach higher goals.

As the digital landscape evolves, digital analytics will play a critical role in shaping marketing strategy. By leveraging data, businesses can stay ahead of the competition and deliver more personalized and effective marketing experiences. Therefore, businesses must invest in digital analytics tools and resources to remain competitive in the digital age.

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