THE IMPACT OF INTELLECTUAL PROPERTY PROTECTION TRADEMARKS INTO CUSTOMER IN THE FOOD AND BEVERAGE INDUSTRY

MUHAMMAD FITRI BIN MD ZAMRI

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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MUHAMMAD FITRI BIN MD ZAMRI

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APPROVAL

‘I declare that I have read this thesis, and in my opinion, it is sufficient in scope and quality for the Bachelor of Technopreneurship with Honours’

SIGNATURE:

SUPERVISOR: SIR MUKHIFFUN BIN MUKAPIT

DATE: 11 FEBRUARY 2025

SIGNATURE:

PANEL: DR. ASLINA BINTI SIMAN

DATE: 11 FEBRUARY 2025

DECLARATION OF ORIGINAL WORK

"I at this moment declare that this thesis is entirely my work with project Title "The Impact of Intellectual Property Protection Trademarks into Customer in the F&B Industry" and except a few clarifications and passages where every source is cited.

SIGNATURE:

NAME: MUHAMMAD FITRI BIN MD ZAMRI

MATRIC NO:

DATE: 11 FEBRUARY 2025

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DEDICATION

I would like to dedicate my gratitude to my dear parents, who have supported me both spiritually and monetarily.

Md Zamri Bin Mokhtar

Suzana Binti Asri

Thanks to my supervisor and panel for guiding me through my research study.

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ABSTRACT

This study examines the relationship between intellectual property trademarks in the F&B industry and their impact on consumers, focusing on McDonald's. Trademark infringement and counterfeiting pose significant challenges, affecting brand value and customer trust. The research objectives are: (i) to assess how trademarks influence customer perceptions of product quality, (ii) to examine their role in shaping purchasing decisions, and (iii) to analyze their impact on customer loyalty. A quantitative survey method was employed, collecting data from McDonald's customers. SPSS was used for data analysis, with descriptive statistics providing insights into research questions. Findings indicate a strong positive correlation between trademark protection and consumer behavior. Customers associate trademarks with higher product quality, fostering trust and influencing purchasing decisions by reducing perceived risks. Trademark protection also enhances customer loyalty through brand familiarity and consistent quality. For future research, expanding beyond McDonald's to other industries will provide broader insights (Kotler & Keller, 2022). A mixed-methods approach will improve research reliability (Bryman, 2021), while a longer data collection period will capture evolving consumer trends (Malhotra & Dash, 2020). A more diverse respondent base (Hair et al., 2019) and integrating offline and online data (Saunders et al., 2021) can enhance findings. Lastly, comparing multiple fast-food brands will help identify competitive advantages (Solomon, 2020).

Keywords: Intellectual Property Protection, Trademarks, Food and Beverage Industry customer perception of quality, customer loyalty, customer purchase decision.

ABSTRAK

Kajian ini mengkaji hubungan antara tanda dagangan harta intelek dalam industri F&B dan kesannya terhadap pengguna, memfokuskan kepada McDonald's. Pelanggaran tanda dagangan dan pemalsuan menimbulkan cabaran besar, menjejaskan nilai jenama dan kepercayaan pelanggan. Objektif kajian adalah: (i) untuk menilai bagaimana tanda dagangan mempengaruhi persepsi pelanggan terhadap kualiti produk, (ii) untuk mengkaji peranan mereka dalam membentuk keputusan pembelian, dan (iii) untuk menganalisis kesannya terhadap kesetiaan pelanggan. Kaedah tinjauan kuantitatif telah digunakan, mengumpul data daripada pelanggan McDonald's. SPSS digunakan untuk analisis data, dengan statistik deskriptif memberikan pandangan kepada persoalan kajian. Penemuan menunjukkan korelasi positif yang kuat antara perlindungan tanda dagangan dan tingkah laku pengguna. Pelanggan mengaitkan tanda dagangan dengan kualiti produk yang lebih tinggi, memupuk kepercayaan dan mempengaruhi keputusan pembelian dengan mengurangkan risiko yang dirasakan. Perlindungan tanda dagangan juga meningkatkan kesetiaan pelanggan melalui kebiasaan jenama dan kualiti yang konsisten. Untuk penyelidikan masa depan, memperluaskan melangkaui McDonald's kepada industri lain akan memberikan pandangan yang lebih luas (Kotler & Keller, 2022). Pendekatan kaedah campuran akan meningkatkan kebolehpercayaan penyelidikan (Bryman, 2021), manakala tempoh pengumpulan data yang lebih lama akan menangkap trend pengguna yang berkembang (Malhotra & Dash, 2020). Pangkalan responden yang lebih pelbagai (Hair et al., 2019) dan menyepadukan data luar talian dan dalam talian (Saunders et al., 2021) boleh meningkatkan penemuan. Akhir sekali, membandingkan pelbagai jenama makanan segera akan membantu mengenal pasti kelebihan daya saing (Solomon, 2020).

Kata kunci: Perlindungan Harta Intelek, Tanda Dagangan, Industri Makanan dan Minuman persepsi pelanggan terhadap kualiti, kesetiaan pelanggan, keputusan pembelian pelanggan.

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LIST OF ABBREVIANTION

IPP	Intellectual Property Protection
F&B	Food and Beverages
TPB	Theory of Plan Behavior
TCB	Consumer Behavior Theory
SPSS	Statistical Package for Social Scientists
RO	Research Objective
IV	Independent Variables
DV	Dependent Variables
IPT	Intellectual Property Trademarks
CQ	Customer Perception Quality
CP	Customer Purchase
CL	Customer Loyalty

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CHAPTER 1

BACKGROUND STUDY

1.1 INTRODUCTION

The purpose of Chapter One is to give readers a general summary of the research. This chapter would give readers with comprehensive information about the study as well as help them understand the overall research environment. Readers will also benefit from the issue description, research purpose, research questions, and study's importance.

1.2 BACKGROUND OF STUDY

The Food and Beverage (F&B) industry is one of the most dynamic and competitive sectors worldwide. In this industry, trademarks play a vital role in differentiating products, developing brand loyalty and assuring consumer trust. Intellectual property (IP) protection, particularly trademarks, is critical for protecting brand integrity and value. This study looks into the impact of trademark protection on customers in the food and beverage industry, as well as the impact of trademark use in the F&B business sector on consumers.

Intellectual Property Protection (IPP) in business refers to the legal processes and techniques used by businesses to safeguard their intellectual property assets against unauthorized use, reproduction, or exploitation by competitors, counterfeiters, or other third parties. According to another researcher, Afzanar Anwer (2016), IP protection entails brand building and trademark exploitation, whether registered or unregistered, which is the preferred method when combined with trade secret protection. As a result, it is possible to conclude that this IPP was

formed to confront and overcome the increasing challenges posed by cyber security, technical advancement, and growing competition. Companies must therefore provide a better level of intellectual property protection in the future.

Intellectual property issue involving McDonald's Malaysia is trademark infringement. McDonald’s, as a global fast-food giant, has faced challenges in protecting its trademark from being misused or replicated by smaller businesses within Malaysia. For example, McDonald's Malaysia has had to enforce its rights against local businesses using names, logos, or designs that closely resemble its brand, such as the misuse of its iconic “Mc” prefix or the golden arches design.

Trademarks serve as identifiers of the source of goods and services, assuring consumers of their quality and origin. In the food and beverage industry, where product uniqueness is critical, trademarks assist businesses in developing a distinct brand identity. According to the World Intellectual Property Organization (WIPO), a good trademark may identify a company’s products from those of competitors, thereby playing an important role in marketing strategies (WIPO, 2023)

Trademark infringement not only causes financial losses but also risks confusing consumers and diluting the brand's value. According to McDonald’s, such violations compromise the quality and reputation of their brand, as consumers might associate the infringing businesses with McDonald’s standards and products (McDonald's Corporation, 2022).

Customer, in the context of marketing and business, is an individual or entity that purchases goods or services produced by a business. The term encompasses various types of buyers, including individual consumers and business clients, who engage in transactions that fulfill their needs or desires. Further elaborating on the concept, Zeithaml, Bitner, and Gremler (2017) describe customers as participants in a dynamic exchange process. They note that customers can be categorized based

on their buying behavior, needs, and the relationship they have with the business. Their work underscores the importance of customer satisfaction, which is influenced by the perceived quality and value of the products or services offered.

In the context of trademarks, a client is defined as an individual or entity who buys or utilizes a company's products or services and is influenced by its trademarks. Trademarks act as identifiers, allowing buyers to identify between different brands and ensure the quality and origin of products or services. They play an important role in creating customer views, increasing brand loyalty, and safeguarding consumer interests. Customers, according to (Smith & Aaker, 1992), rely on trademarks to convey quality and consistency. Trademarks enable buyers to identify items and services from a certain source, lowering the perceived risk associated with their purchasing decisions. Trust in the trademarked brand can result in client loyalty and repeat purchases. Similarly, (Keller, 1993) highlights that trademark are a key component of brand equity, which is the value derived from customer perception of the brand. Trademarks contribute to brand awareness and image, significantly impacting customer behavior. Customers associate trademarks with their experiences and expectations, which influence their purchasing decisions and overall satisfaction.

The Food and Beverage (F&B) industry refers to all enterprises that process, package, distribute, and sell food and beverages. This industry encompasses a diverse range of businesses, from tiny cafés and restaurants to large-scale food manufacturers and international beverage firms. The food and beverage business is important to the global economy because it provides necessary items that meet consumers' nutritional and culinary needs. According to (Kumavat, 2012), the F&B industry is characterized by its diversity and complexity, encompassing various sub-sectors such as agriculture, food processing, food retailing, and food service. Each sub-sector plays a distinct role in the food supply chain, contributing to the production and distribution of food and beverages that meet consumer demands. Furthermore, the food and beverage business are subjects to stringent

rules and standards designed to ensure food safety and quality. These restrictions are critical to protecting consumer health and maintaining public faith in food goods. To avoid foodborne illnesses and misleading claims, the food and beverage industry must follow criteria that govern food cleanliness, labelling, and advertising (WHO, 2020).

The Food and Beverage (F&B) industry involves the production, processing, packaging, distribution, and retailing of food and beverage products. Trademarks play a pivotal role in this industry by providing legal protection for brand names, logos, and other distinctive signs that identify and differentiate products in the marketplace. Trademarks help to ensure that consumers can distinguish between different brands and make informed purchasing decisions based on their preferences and experiences. According to (Beverland, 2005), trademarks are integral to brand strategy in the F&B industry. They serve as symbols of quality and consistency, helping to build brand equity and consumer loyalty. In a highly competitive market, trademarks enable companies to protect their brand identity and prevent imitation or misuse by competitors. This protection is crucial for maintaining a brand's reputation and market share. Furthermore, trademarks play an important role in the food and beverage business, including foreign markets. The World Intellectual Property Organization (WIPO) emphasize the importance of trademarks for enterprises seeking to grow globally, since they provide a framework for preserving brand identification across many nations. This is especially significant in the food and beverage industry, where brands must frequently navigate many regulatory regimes to protect their trademark rights and ensure product authenticity (WIPO, 2023).

1.3 PROBLEM STATEMENT

The food and beverage business has substantial issues due to trademark infringement and counterfeiting, which can weaken brand value and customer trust. According to studies, counterfeit products not only harm the financial success of legitimate firms, but also endanger consumers' health (Hirsch, 2018). Furthermore, The F&B industry is particularly vulnerable to counterfeit products, which can harm brand reputation and pose health risks to consumers. Effective trademark protection helps mitigate these risks by enabling companies to take legal action against counterfeiters (Gao & Zhang, 2020). The efficiency of trademark protection varies by jurisdiction, affecting F&B enterprises' global operations (WIPO, 2023). This variation needs a thorough assessment of trademarks' importance in various legislative regimes, as well as their impact on customer behavior.

The vulnerability of the F&B industry to counterfeit products highlights the need for robust trademark protection mechanisms to safeguard brand reputation and consumer safety. For McDonald's, effective trademark protection has been critical in addressing these issues, enabling the company to take legal action against counterfeiters and infringers. Gao and Zhang (2020) argue that the effectiveness of trademark enforcement varies by jurisdiction, directly impacting the global operations of companies like McDonald's.

The Food and Beverage (F&B) business is defined by strong competition and an ongoing demand for innovation and brand uniqueness. In this perspective, trademarks are important intellectual property assets that assist businesses in establishing and maintaining a distinct brand in the market. However, the efficiency of trademarks in influencing customer behavior and loyalty in the food and beverage industry is not well recognized. There is a need for research on how intellectual property protection through trademarks affects customer views, purchase decisions, and brand loyalty. Understanding this relationship is critical

for firms looking to use their trademarks to achieve a competitive advantage and increase consumer satisfaction.

Trademarks help consumers in making educated purchasing decisions by communicating the origin and quality of products (Keller, 1993). They reduce search costs and purchasing risks by ensuring consistency and reliability (Smith & Aaker, 1992). However, the growth of counterfeit goods presents a huge difficulty. Counterfeiting not only causes financial losses for genuine enterprises, but it also harms brand reputation and destroys consumer trust (Hirsch, 2018). Furthermore, counterfeit food and beverage goods can pose major health hazards, exacerbating the situation (Wang et al., 2020)

Trademark infringement occurs when an unauthorized party uses a brand's trademark in a manner that may cause confusion among consumers regarding the source of the goods or services. This misuse can significantly dilute a brand's value by weakening its distinctiveness and reducing the perceived quality associated with the trademark. According to research by Cleeren (2020), trademark litigation often follows instances of infringement and can have a substantial impact on a firm's perceived quality and sales performance. For a brand like McDonald's, whose value heavily relies on its trademarks (such as the golden arches), infringement can lead to a loss of uniqueness and perceived value, ultimately affecting its market position,

In 2023, McDonald's faced a significant legal defeat in a trademark dispute against Hungry Jack's, the Australian franchisee of Burger King. The conflict centered around Hungry Jack's use of the name "Big Jack" for one of its burgers, which McDonald's claimed was deceptively similar to its iconic "Big Mac." McDonald's argued that the similarity in the names could confuse consumers and dilute its brand identity. However, after a three-year legal battle, the Federal Court of Australia ruled in favor of Hungry Jack's. The court found that the "Big Jack"

name was not sufficiently similar to “Big Mac” to mislead consumers, allowing Hungry Jack’s to continue using the name. This ruling highlighted the complexities of trademark disputes, especially in competitive markets like the fast-food industry, and underscored the challenges McDonald’s faces in protecting its intellectual property on a global scale. The case also drew public attention, with some seeing it as a win for smaller competitors in the face of corporate giants.

Trademark infringement and counterfeiting pose huge challenges for global brands like McDonald’s. These illegal activities not only dilute brand equity but also erode customer trust. The researcher has analyzed the problem statement of how trademark infringement and counterfeiting can undermine brand value and customer trust, with a focus on McDonald’s, supported by scientific literature.

1.4 RESEARCH QUESTION

Research question are required to gather the relevant knowledge needed to achieve the purpose. This research helped to understand The Impact of Intellectual Property Protection into Customer in the F&B Industry. The following are the question:

I. How do trademarks in McDonald's influence customer perceptions of product quality a in the F&B industry?

II. In what ways do trademarks in McDonald's shape customer purchasing decisions?

III. What is the relationship between trademark protection by McDonald's and customer loyalty in the F&B sector?

1.5 RESEARCH OBJECTIVE

The primary objective of this research is to investigate the impact of intellectual property protection, specifically trademarks, on customer perceptions, purchasing decisions, and brand loyalty within the Food and Beverage (F&B) industry. This study aims to achieve the following specific objectives:

I. To assess how trademarks influence customer perceptions of product quality in McDonald's.

II. To examine the role of trademarks in shaping customer purchasing decisions in McDonald's.

III. To examine affect trademark protection to customer loyalty in the F&B sector in McDonald's.

1.6 SCOPE OF STUDY

The study's focus is the area surrounding F&B Melaka. This research was chosen to examine the impact of Intellectual Property Protection trademarks into Customer in the F&B Industry in the McDonald' Melaka region. This study's main goal is to explore how much intellectual property protection helps businesses attract and retain customer loyalty. It also focuses on examining consumers perceptions of quality and Purchase in F&B sector. In order to gather information for this study, the researcher performed multiple surveys and conducted interviews with clients who use industry services.

One of the key reasons for choosing McDonald's as a focus in the F&B industry in Melaka is its strong presence and relevance in both the local and tourist markets. McDonald's is a globally recognized brand known for its quality, consistency, and convenience, making it an ideal case study for exploring the impact of intellectual property protection on customer perception and loyalty. In Melaka, McDonald's iconic branding, such as the golden arches and the "Mc" prefix, attracts both local residents and tourists, who see the brand as a trusted and familiar dining option. Its strategic location near high-traffic areas, including tourist hotspots like Jonker Street, further enhances its appeal as a convenient choice for diverse customer segments.

Additionally, McDonald's adapts its offerings to local tastes, such as introducing items like Ayam Goreng McD and Bubur Ayam McD, demonstrating how intellectual property plays a critical role in maintaining brand identity while allowing for regional innovation. As a market leader, McDonald's not only sets trends in the F&B industry but also highlights the importance of trademark protection in safeguarding its competitive edge. By focusing on McDonald's in Melaka, this study can provide valuable insights into how intellectual property

influences customer behavior and business sustainability in a highly competitive and culturally rich market.

1.7 LIMITATION OF STUDY

Initially, the researcher looks into how well IP Trademarks is used in the food and beverage F&B industry in terms of customer loyalty when using industry services. Researchers need to modify their study on consumer reactions to the application of intellectual property protection for food in order to account for restricted access. Personal dispute resolution is another area where this study falls short. In the realm of intellectual property, traders and entrepreneurs have employed a variety of strategies, including copy rights, trademarks, and patterns. However, the trademark approach has been the exclusive focus of this study's methodology.

1.8 SIGNIFICANT OF RESEARCH

The researcher has gained a thorough understanding of how intellectual property protection trademarks affected customer in the F&B industry by completing this study. Furthermore, the investigator is capable of elucidating the correlation between the influence of intellectual property protection protocols and patron allegiance to fast food and beverage businesses. Consequently, other researchers who wish to conduct study on intellectual property protection works into customer loyalty may find this research paper useful in the future. Additionally, businesses looking to leverage intellectual property protection to grow can benefit from some of the insights this report offers.

1.9 SUMMARY

The introduction to the entire study serves as the structure for this chapter. The issue of the study is introduced, along with its history, problem statement, research questions, and research purpose. It also discusses the study's limitations, scope, and significance.

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

In the dynamic and competitive landscape of the Food and Beverage (F&B) industry, trademarks play a pivotal role in shaping customer perception, fostering customer loyalty, and driving purchasing decisions. The primary goal of this study is to determine whether intellectual property protection trademarks have an impact on customers. This research tries to understand the dynamics of the effect of IP in trademarks in the F&B industry and the customer's response to it. As a result, this chapter covers the literature on This study also looks at the perspectives of customers who use F&B industry services, as well as the impact of the usage of intellectual property (trademarks) on customer loyalty, perceptions of quality, and purchase decisions. This study also tries to promote meaningful contact and consumer intent. This study contributes to a broader knowledge of the influence of the usage of intellectual property trademarks in each F&B industry, as well as the implications for consumers today, through a strong research framework and hypothesis.

2.1 CUSTOMER

A customer is an individual, group, or organization that conducts transactions or exchanges with a commercial entity, usually by purchasing goods or services. Customers are critical to the operation of markets because their demand drives production and innovation. They play an important role in corporate performance by influencing product development, pricing tactics, and general market dynamics.

Customers now have unprecedented access to information, allowing them to make informed decisions and interact with firms via a variety of channels such as internet platforms and social media. Based on pass researcher statement by Sunil Gupta and Donald R. Lehmann, Customers as Assets (October 2001) customer 'We presume that a consumer is a reliable source of revenues for a company and is entirely loyal to its products". In my opinion support by that statement, Consumer loyalty is influenced by various factors such as product quality, brand reputation, price competitiveness, customer service, and evolving market trends. In today's competitive landscape, consumers have a plethora of options available to them, and their loyalty can often be fickle.

Customers are individuals who like and use the services provided by the business; the best service will elicit a positive response from consumers. Larissa Becker1 and Elina Jaakkola1 conducted a study titled "Customer Experience: Fundamental Premises and Implications for Research" in (2020), Over the last decade, customer experience has garnered a lot of attention in marketing research and practice. According to business leaders (McCall 2015) and marketing experts (Homburg et al. 2015; Lemon and Verhoef 2016), the customer experience is a key factor in a company's success. In my opinion, a positive customer experience not only fosters loyalty but also enhances brand reputation, drives repeat business, and encourages positive word-of-mouth referrals. This show customer important in odder gain profit in every single business in the world.

Source: *ACSI Restaurant Study 2022-2023*

Restaurant Brand	ACSI Score 2023
Chick-fil-A	85
Jimmy John's	84
KFC	81
Papa Johns	80
Domino's	79
Five Guys	78
Pizza Hut	78
Starbucks	78
Arby's	77
Chipotle	77
Dunkin'	77
Panera Bread	77
Burger King	76
Little Caesars	76
Panda Express	76
Subway	75
Wendy's	75
Sonic	74
Taco Bell	74
McDonald's	70

Table 2.1: Customer satisfaction in the Food and Beverage (F&B) industry

Customer satisfaction in the Food and Beverage (F&B) industry is a critical metric that reflects consumers' experiences and perceptions of various brands. The American Customer Satisfaction Index (ACSI) provides comprehensive data on this aspect, particularly within the United States.

In the American Customer Satisfaction Index (ACSI) Restaurant Study 2022-2023, McDonald's scored 70, which is among the lowest scores for major fast food brands. This score reflects customer satisfaction in key areas such as food quality, service speed, accuracy, value for money, and overall restaurant environment. The relatively low score indicates that while McDonald's is popular for its affordability and convenience, there are notable areas for improvement. Challenges contributing to this score include inconsistencies in service and food preparation across different locations, as well as customer perceptions of lower quality compared to competitors that emphasize fresh or premium ingredients. Additionally, McDonald's focus on speed may sometimes compromise service

accuracy or the overall customer experience. In comparison, higher-scoring competitors such as Chick-fil-A (85) and Jimmy John's (84) excel by offering exceptional service, consistent quality, and attention to detail. Even close competitors like Wendy's (75) and Subway (75) perform better, largely due to menu innovations and a focus on healthier options. For McDonald's to improve customer satisfaction, it must address these challenges by enhancing food quality, maintaining consistent service standards, and leveraging technology to improve convenience and engagement. By doing so, McDonald's can better meet customer expectations and strengthen its competitive position in the fast food industry.

2.2 CUSTOMER IN THE F&B INDUSTRY

Customers in the food and beverage industry are critical to business success because their satisfaction has a direct impact on things like revenue, reputation and repeat sales. Understanding customer preferences, behaviors and trends is essential for F&B businesses that want to remain competitive in the market. To support my sentence above, the research from Vinit Dani, measuring customer satisfaction for F&B chains in Pune using ACSI Model, (2013), said customer satisfaction is one of the most important aspects for F&B sector. The researcher also emphasize A satisfied customer is like a sales force for a company who will talk positively about the service brand to others. In my opinion refer to the researcher, the emphasis on customer satisfaction and its ripple effect in the form of positive word-of-mouth cannot be overstated. In an era dominated by social media and online reviews, the opinions and experiences of customers carry significant weight and can influence the perceptions of a wide audience. Therefore, F&B businesses must prioritize delivering exceptional customer experiences consistently to cultivate loyalty, drive growth, and maintain a competitive edge in the market. Finally, consumer happiness is critical to success in the food and beverage industry. Customers that are satisfied are more likely to return for further purchases, which increases business income and profitability. Furthermore, their pleasant experiences can

have a substantial impact on company reputation and influence others' decisions, functioning as an effective type of organic marketing.

In the Food and Beverage (F&B) industry, customers are at the heart of business operations. They are not merely consumers of food and drinks, rather, they are active participants in shaping the dining experience and influencing the success of establishments. Understanding customer preferences, behaviors, and expectations is essential for F&B businesses to thrive in a highly competitive market. Customer Relationship Management (CRM) theories that business organizations use to improve customer retention where the ability of a business organization to tie down their customers without losing them to other competitors, Ahmed Ghazi Mahafzah and Nader Mohammad Aljawarneh (2020). In the process of tying down their frequent customers, businesses also thrive in improving the delivery of their services to lure many other new customers. In my Opinion, pass researcher statement give explanation how important customer relationship management in F&B industry. Therefore, F&B industry must aware about customer relationship as refer to the pass researcher Sunil Gupta and Donald R. Lehmann, customer As Assets (2001) "we assume that a customer provides a continuous stream of profits for a company".

2.3 INTELLECTUAL PROPERTY PROTECTION (TRADEMARKS)

Intellectual property (IP) protection refers to the legal rights that authors and owners have in their intellectual works or innovations. These creations may include inventions, literary and creative works, designs, symbols, names and commercial images. IP protection aims to protect these works from unauthorized use or exploitation by others, allowing creators and innovators to profit from their efforts and investments. In support of the statement about the above meaning, the last appreciation made by Dr Arun Gaikwad, with the title of the research study on intellectual property rights and its importance for business (2020) states that

Intellectual Property (IP) refers to the exclusive rights related to the creation of the mind. Under IP law, intangible assets such as inventions, literary and artistic works, designs and phrases, symbols and images can be protected.

2.3.1 Trademarks

Intellectual Property (IP) trademarks are distinctive signs, symbols, logos, words, or combinations thereof that identify and distinguish the goods or services of one entity from those of others. Trademarks are a critical aspect of IP, offering legal protection to brand names and ensuring that consumers can identify the source of a product or service. This protection helps prevent confusion in the marketplace and allows businesses to build brand reputation and consumer loyalty. According to the World Intellectual Property Organization (WIPO), a trademark is a "sign capable of distinguishing the goods or services of one enterprise from those of other enterprises" (WIPO, 2023). Trademarks play a crucial role in the commercial world by safeguarding the brand identity and integrity of products and services, which in turn fosters trust and reliability among consumers.

Trademarks are a form of intellectual property that consists of any sign, design, or expression which identifies products or services of a particular source from those of others. The primary function of a trademark is to distinguish the goods or services of one enterprise from those of other enterprises. This distinction helps consumers to identify the source and quality of the products or services they are purchasing. Based on existed literature by (Dinwoodie, 2001) trademarks indicate the origin of goods or services, which helps consumers identify and select products based on their source. This function is crucial for building and maintaining brand identity.

2.4 INTELECTUAL PROPERTY TRADEMARKS IN F&B SECTOR

In the Food and Beverage (F&B) market, trademarks are important instruments for product differentiation, maintaining quality and generating brand loyalty. Proper use of trademarks helps organizations maintain their brand identity, increase consumer trust and navigate the competitive market landscape. To support this statement, (WIPO, 2023) Brand Differentiation Trademarks help F&B companies differentiate their products from those of competitors. This differentiation is important in a market saturated with many similar products. By providing a unique identifier, a trademark allows consumers to recognize and select a particular brand. According to the researchers of this study, the food and beverage industry is especially vulnerable to counterfeit products, which can harm brand reputation and endanger customer health. Effective trademark protection mitigates this risk by allowing businesses to pursue legal action against counterfeiters (Gao & Zhang, 2020).

According to Mr. Bharani Kumar's research, Food and Beverage Companies in Malaysia (2023), there are 60 F&B companies that use intellectual property trademarks for their businesses, one of which is McDonald's. McDonald's is one of the most well-known brands in the worldwide food and beverage sector, and its success is due to the smart exploitation of its intellectual property trademarks. McDonald's trademarks include the name, logo, slogan ("I'm Lovin' It"), product names (such as Big Mac), and distinctive restaurant design. These trademarks allow McDonald's to retain a strong brand identity, ensure product consistency, and build customer relationships.

In this study, the researcher chose McDonald's as the F&B industry to complete the study. This is because McDonald's is one of the successful F&B sectors in business. The researcher wants to study the effect of the use of IP trademarks by McDonald's Restaurant on customers.

2.5 IMPACT INTELLECTUAL PROPERTY TRADEMARKS INTO CUSTOMER

In the highly competitive Food and Beverage (F&B) market, intellectual property (IP) trademarks are vital assets to firms. They serve to differentiate items, ensure quality, and increase customer loyalty. This component of the study examines the impact of IP trademarks on customer perception of quality, purchase decisions (including premium pricing and brand choice), and customer loyalty, relying on recent scholarly work.

2.5.1 Customer Perception of Quality

Intellectual property trademarks have a significant impact on how customers perceive product quality. Trademarks act as markers for consistency and confidence, improving the perception of product and service quality. When consumers know and trust a brand, they link it with a specific degree of quality, which can play an important role in their decision-making process. Strong trademarks, according to Cleeren, Dekimpe, and Helsen (2020), improve perceived quality by ensuring product consistency and reliability. Perceived quality is therefore crucial in the food and beverage business, where product consistency can impact consumer trust and preference. For example, McDonald's golden arch logo represents specific fast food quality criteria that customers worldwide anticipate (Cleeren et al., 2020).

2.5.2 Customer Purchasing Decision: Premium Price and Brand Choice

Trademarks play an important role in customer purchasing decisions by justifying premium pricing and guiding brand choice. Customers are often willing to pay a higher price for branded products they trust, perceiving them as higher quality than generic or lesser-known brands. Trademarks facilitate the purchase process by reducing perceived risk and helping brand recognition. Jin and He (2020) highlight that trademark allow brands to command premium prices due to the perceived value of the product.

Additionally, trademarks facilitate brand choice for consumers, making them more likely to choose familiar and trusted brands over unfamiliar ones. For example, McDonald's ability to charge a premium for its products over generic fast foods options is largely due to its brand strength and recognition (Jin & He, 2020).

2.5.3 Customer Loyalty: Repeat Purchase

Branding is vital for increasing consumer loyalty and driving repeat purchases. Recognized and trusted trademarks encourage consumer loyalty, as people are more likely to purchase from trusted businesses. In the immediate environment, this loyalty is frequently the outcome of favorable experiences and constant characteristics connected with the trademark. Vargas-Hernández and Palladino (2020) discovered that trademarks boost client loyalty by offering a consistent and dependable brand experience. According to their research on McDonald's, customers are more inclined to make repeat purchases when they have a good association with the brand's trademark. McDonald's consistent use of the trademark in marketing and its ability to deliver a uniform customer experience across different locations significantly contribute to high levels of customer loyalty.

To conclude this section, the use of IP trademarks has a profound impact on various aspects of customer behavior in the F&B industry. Trademarks enhance customer perception of quality, influence purchasing decisions by justifying premium prices and simplifying brand choice, and foster customer loyalty through consistent and reliable brand experiences.

2.6 APPLICATION OF THEORY OF PLAN BEHAVIOR (TPB) AND CONSUMER BEHAVIOR THEORY (TCB) IN IP (TRADEMARKS)

This study is grounded several of theory including the theory of planned behavior (TPB) and theory of consumer behavior (TCB), to complete this research. According to the theory of planned behavior, consumers' attitudes towards a product significantly influence their purchase intentions (Ajzen, 1991). According to (Kotler & Keller, 2016), Consumer behavior theory explores how consumers make purchasing decisions, the factors influencing these decisions, and the role of brand perception in shaping consumer choices. The reason for using this theory is because TPB emphasizes aspects of purchase intention in making decision meanwhile TCB emphasizes aspect of consumer behavior. TCB also emphasizes the theory where customers will give a perception and also be loyal to the brand. The researcher found this theory language suitable to be used in the study to help in completing this study.

IP trademarks significantly influence customer perceptions of product quality by serving as reliable signals of product consistency and reliability. When consumers recognize and trust a trademark, they associate it with a certain level of quality, influencing their attitudes and purchase intentions. For instance, the golden arches of McDonald's are widely recognized and associated with a standard level of quality globally. Cleeren, Dekimpe, and Helsen (2020) found that strong trademarks improve perceived quality because they provide assurance of product consistency and reliability, which is essential in the F&B industry wheres product consistency influences consumer trust and preference.

IP trademarks justify premium pricing and influence brand choice by enhancing the perceived value of products. Customers are often willing to pay higher prices for branded products they trust, perceiving them as higher quality compared to generic or lesser-known brands. Trademarks reduce perceived risk and aid brand recognition, simplifying the purchasing process. Jin and He (2020) highlight that trademark allow brands to command premium prices due to the added perceived

value. Moreover, trademarks simplify brand choice for consumers, making them more likely to choose a familiar and trusted brand over unfamiliar ones. For example, McDonald's ability to charge a premium for its products compared to generic fast foods options is largely due to the strength and recognizability of its trademarks.

IP trademarks are crucial in building customer loyalty and encouraging repeat purchases. A recognizable and trusted trademark fosters a sense of loyalty among consumers, who are more likely to repurchase from brands they trust. This loyalty is often a result of positive experiences and consistent quality associated with the trademark. Vargas-Hernández and Palladino (2020) found that trademarks enhance customer loyalty by providing a consistent and reliable brand experience. Their study on McDonald's demonstrated that customers are more likely to engage in repeat purchases when they have a positive association with the brand's trademark.

Theory of plan behavior and consumer behavior theory provides a robust framework for understanding the impact of IP trademarks on various aspects of customer behavior in the F&B industry. Trademarks enhance customer perception of quality, influence purchasing decisions by justifying premium prices and simplifying brand choice, and foster customer loyalty. The case of McDonald's illustrates how effective trademark management can lead to sustained brand success and consumer trust.

2.7 RESEARCH GAPS

The impact of trademark infringement on consumer perception and brand loyalty, particularly within the Food and Beverage (F&B) industry, remains underexplored. While there is a substantial body of literature on brand personality and its effects on consumer trust and loyalty, specific empirical studies addressing how trademark infringement incidents influence these factors are limited. For instance, Freling et al. (2011) discuss the benefits of a favorable brand personality,

such as enhanced brand attitudes and purchase intentions, but do not delve into the repercussions of trademark infringement.

Additionally, while studies like that of Zha et al. (2024) examine sensory brand experiences and their effect on brand loyalty, they do not specifically address the consequences of trademark infringement.

Given this gap, future research could focus on assessing how trademark infringement incidents affect consumer trust and loyalty towards the original brand in the F&B sector. Understanding these dynamics would provide valuable insights for brands aiming to mitigate potential negative impacts and develop strategies to maintain consumer confidence and loyalty

2.8 RESEARCH FRAMEWORK

A research framework consists of ideas arranged systematically and linearly to clearly outline the optimal method to understand the expected results. The research framework provides based on the literature analysis of chapter 2 and a structured approach to examining the impact of trademark protection on customer in the F&B industry. Some factors have been modified from previous research the effect of trademark protection on brand loyalty in the food and beverage industry. Journal of intellectual property law & practice Jin, Y., & He, Y. (2020) to study the impact of trademark protection on customer in the F&B industry. The researcher has developed a research framework to study the impact of trademark protection on customers at McDonald's Melaka. Where, it consists of independent variables which are Intellectual property protection (trademarks). The dependent variable for this research framework is the consumer and is divided into three aspects, namely consumer perception (quality), customer purchase decisions (Premium price, or brand choice) and, customer loyalty. The purpose is to research the effect of IP Trademarks on customers.

The rationale for selecting customer as a dependent variable lies in its importance to the F&B industry's long-term profitability and brand sustainability. In a highly competitive market where customers have multiple options, loyalty ensures repeat business, positive word-of-mouth recommendations, and lower customer acquisition costs. Jin and He (2020) emphasize that trademark protection strengthens customer loyalty by ensuring the authenticity and quality associated with a brand, which is particularly critical in the F&B sector where trust in food safety and quality directly influences customer decisions. This makes McDonald's in Melaka a relevant case study, as the global brand's strong association with trademark protection can significantly drive customer loyalty in a market characterized by intense competition and high consumer expectations.

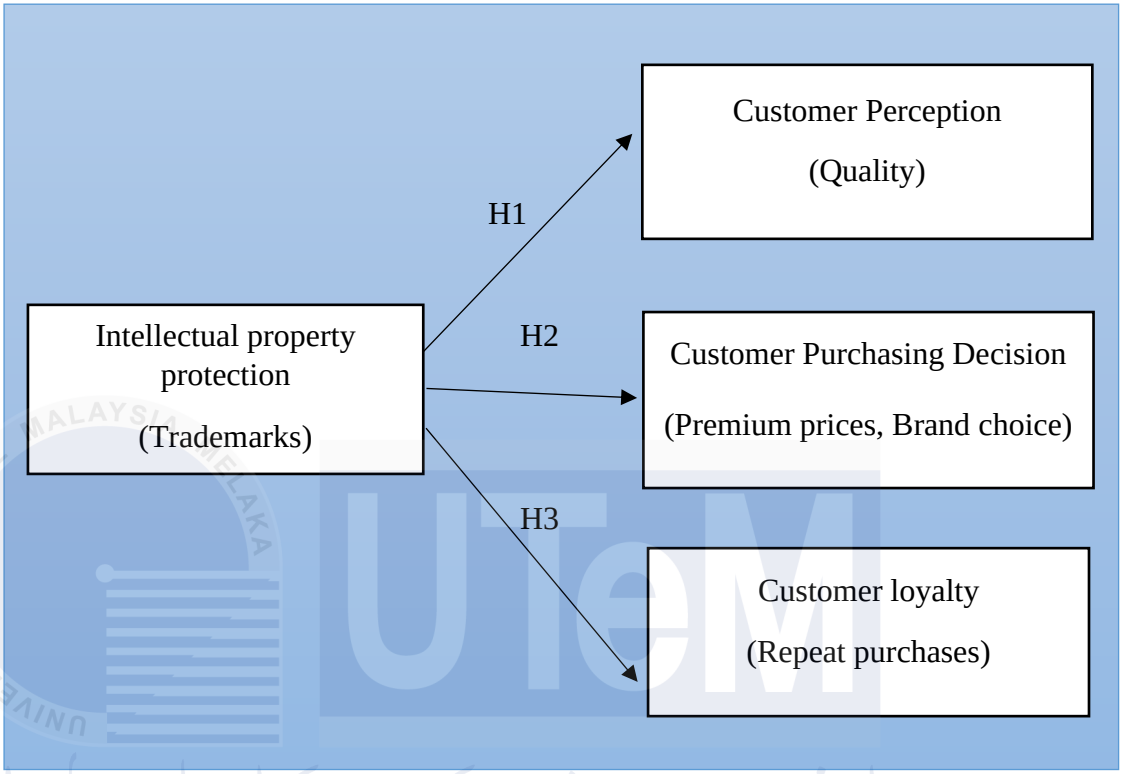

Figure 2.1: Research Framework

Framework

The research framework provides a structured approach to examining the impact of trademark protection on customer in the F&B industry. By exploring these relationships, the study aims to offer valuable insights for businesses to enhance their trademark strategies and improve customer satisfaction.

2.9 HYPOTHESIS TESTING

Based on the Figure 1, three hypotheses had been mad by the researcher to study the impact of trademark Intellectual protection towards customer in the F&B industry. The hypotheses were:

Customer Perception of Quality

H1: There is positive relationship between intellectual property (Trademarks) towards customer perception of quality.

Intellectual property trademarks have a significant impact on how customers perceive product quality. Trademarks act as markers for consistency and confidence, improving the perception of product and service quality. When consumers know and trust a brand, they link it with a specific degree of quality, which can play an important role in their decision-making process. Strong trademarks, according to Cleeren, Dekimpe, and Helsen (2020), improve perceived quality by ensuring product consistency and reliability. Perceived quality is therefore crucial in the food and beverage business, where product consistency can impact consumer trust and preference. For example, McDonald's golden arch logo represents specific fast food quality criteria that customers worldwide anticipate (Cleeren et al., 2020).

Customer Purchasing Decision: Premium Price and Brand Choice

H2: There is positive relationship between intellectual property (Trademarks) towards customer purchasing decision.

Trademarks play an important role in customer purchasing decisions by justifying premium pricing and guiding brand choice. Customers are often willing to pay a higher price for branded products they trust, perceiving them as higher quality than generic or lesser-known brands. Trademarks facilitate the purchase process by reducing perceived risk and helping brand recognition. Jin and He (2020) highlight that trademark allow brands to command premium prices due to the perceived value of the product.

Additionally, trademarks facilitate brand choice for consumers, making them more likely to choose familiar and trusted brands over unfamiliar ones. For example, McDonald's ability to charge a premium for its products over generic fast foods options is largely due to its brand strength and recognition (Jin & He, 2020).

Customer Loyalty: Repeat Purchase

H3: There is positive relationship between intellectual property (Trademarks) towards customer Loyalty

Branding is vital for increasing consumer loyalty and driving repeat purchases. Recognized and trusted trademarks encourage consumer loyalty, as people are more likely to purchase from trusted businesses. In the immediate environment, this loyalty is frequently the outcome of favorable experiences and constant characteristics connected with the trademark. Vargas-Hernández and Palladino (2020) discovered that trademarks boost client loyalty by offering a consistent and dependable brand experience. According to their research on McDonald's, customers are more inclined to make repeat purchases when they have a good association with the brand's trademark. McDonald's consistent use of the trademark in marketing and its ability to deliver a uniform customer experience across different locations significantly contribute to high levels of customer loyalty.

2.10 SUMMARY

In this chapter, the researcher has discussed about the definition of consumer, consumer and F&B industry, Intellectual property, and Intellectual property (Trademarks), consumer perception (Quality), purchase decision, customer loyalty, theory of plan behavior (TPB) and also consumer behavior theory (TCB) which is based on previous studies which are studies done by other researchers. Furthermore, the main objective of the framework in figure 1 is to provide a clearer vision of the impact of IP trademarks to consumers in the F&B industry. The

research framework developed by the researcher is based on the Theory of Plan behavior (Ajzen, 1991) and also consumer behavior to (Kotler & Keller, 2016), which consists of one independent variable and three dependent variables. The independent variable is intellectual property protection (IP), and Trademarks while the dependent variable is consumer perception (Quality), purchase decisions, and customer loyalty. Finally, the researcher has also developed several hypothesis tests to evaluate the relationship between the independent variable and the dependent variable. The research analysis methodology will be explained in the following chapter. In summary, the researcher demonstrated how data is gathered and processed to meet the goal. The argument for employing this method is explained openly.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter covers the research methodology as well as the methods used for the investigation. The tools and strategies used by researchers to conduct research are referred to as research methodology (Walliman, 2010). The important thing in this study is to study the use of trademark IP in the F&B industry and the effect of using IP on customers. The research techniques used are research design, methodology selection, data sources, research strategy, research location and time period, all of which are discussed in this chapter. Therefore, this chapter also focuses on questionnaire design, survey results, and data analysis.

3.1 RESEARCH APPROACH

Research methodologies are key strategies employed by researchers in their studies, and the nature of the issue influences the approach used (Kankam, 2019). Consists of two methodologies: inductive and deductive. The deductive methodology, as discussed by Margenau (1953), is a fundamental approach in the physical and social sciences, emphasizing the use of theoretical science. These procedures often include selecting a project, developing a working hypothesis, and repeatedly assessing and critically evaluating the research activity (Fraunhofer 1973). Because of the study's purpose and the test questions, which require mathematical investigation of material, deductive methodology is deemed an appropriate technique for the examination to explain problematic assertions as

discussed in Chapter 1. As a result, this inquiry will be conducted using a quantitative technique. Quantitative research methods involve a systematic search for knowledge, including the identification of a research problem, creation of hypotheses, data collection, analysis, and inference (Ghanad, 2023).

3.2 RESEARCH DESIGN

In this research study, it aims to examine the relationship between the use of IP trademarks towards consumers at McDonald's, Melaka. Research design is a crucial aspect of any study, serving as a blueprint for data collection, measurement, and analysis (Indu, and Akhtar, 2016). It is particularly important in design research, where the outcome is often an artefact or innovation, and business needs are emphasized (Järvinen, 2007). The concept of the unit of analysis is central to research design, with its role in maintaining independence and the potential for alternative analyses when this is violated (Dolma, 2010). Akhtar (2016) further emphasizes the importance of research design as the blueprint for conducting research, highlighting the need to recognize the type of evidence required to answer the research question. This is because the research study found a cause-and-effect relationship between the independent variable that is the use of Ip trademarks in the F&B sector and the dependent variable that is the three effects of the use of trademarks to consumers that are relevant to the research.

3.2.1 Explanatory Research

An explanatory study design examines the cause-and-effect relationship between an independent variable and a dependent variable. Using this descriptive study allows the researcher to better grasp the situation. This is because the researcher can adjust to new facts and insights discovered during the investigation. Furthermore, as part of the research technique, the researcher used a web questionnaire to emphasize the research hypothesis. The researcher is employing

this online questionnaire to make it easier for respondents to answer online, and the dissemination of questions via internet links can also help the researcher complete the study by gathering data. Because this is an explanatory study, all secondary data from current and previous research will be examined, followed by primary data analysis to determine the relationship between the effects of intellectual property trademarks in the food and beverage business on customers.

3.3 METHODOLOGY CHOICE

Methodology choices are divided into three categories: quantitative methods, qualitative approaches, and blended methods. In this study, the researcher argues that the quantitative approach is more appropriate for data collection than the qualitative and mixed methods. Quantitative research methods involve a systematic search for knowledge, including the identification of a research problem, creation of hypotheses, data collection, analysis, and inference (Ghanad, 2023). Besides, Bouquet (2005) provides a detailed methodology for quantitative research, focusing on sample selection, data collection, and variable operationalization. This method is used to collect numerical data from web questionnaires and analyze it with a variety of statistics. The dimension of self-service technology has been evaluated, and the goal is to get an understanding of the impact of IP trademarks on users with a large number of consumers in order to make judgements that benefit the entire population. As a result, the information is more accurate for use in data analysis for this study's evaluation of the relationship between the influence of trademark IP on customers in the food and beverage business.

3.4 DATA RESOURCES

Basically, there were two types of data and information to be collected: main data sources and secondary data sources. The researcher conducted the research using both data sources.

3.4.1 Primary Data

Collen (2012) defines primary data as information acquired for a specific purpose, such as patient care in medical record systems. This data is frequently used in decision-making and analysis. Dąbrowska (2011) 31tilized31s the relevance of primary data in competitive intelligence, citing the internet as a source of such information. Khuc (2021) and Khuc (2020) both discuss the importance of primary data in research, particularly in relation to questionnaire methods and models. These studies demonstrate the significance of original data in a variety of sectors, including healthcare, competitive intelligence, and research. To guarantee that the data is relevant to the researcher, the questions asked are straightforward and clear so that respondents can comprehend them. The questionnaire discusses the relationship between intellectual property and its impact on users. Respondents were requested to complete a closed-ended questionnaire delivered via Google Forms, an online platform that included multiple statements to assess various independent components measured on a Likert Scale. Furthermore, the majority of the study's respondents have had previous experience eating and drinking at McDonald's in Melaka.

3.4.2 Secondary Data

Secondary data is a standard type of data collection employed by most academics. Secondary data, as described by Coyer (2005), is the utilization of existing data to address new research questions or apply other statistical approaches. This strategy

is very valuable for nurse practitioners looking to improve their research skills. Trinh (2018) emphasizes the advantages of secondary data analysis, such as overcoming financial and logistical barriers and the possibility to conduct high-quality research. However, Cole (2017) warns that using secondary data can create methodological issues, such as bias and missing data, and emphasizes the need of data transparency. Safran (2007) emphasizes the ethical, political, and technical challenges surrounding the secondary use of health data and advocates for a national framework to regulate its proper application.

The researcher employs secondary data in this research study since it can save the researcher time given the restricted time available to perform the research. As a result, secondary data has proven to be quite useful, as researchers may now gain access to information that was previously unavailable through direct contact with the public.

3.5 RESEARCH STRATEGY

Research strategy is crucial in research because it helps the researcher determine the flow and structure of the study. Malhotra (2017) defines research strategy as a systematic plan that directs data collection and interpretation while being impacted by the study objective and topic. This investigation proposes that a quantitative methodology be employed in this study. At that time, an overview is the most appropriate methodology for gathering information from responders. In this study, the survey was chosen as a research approach to be consistent with research techniques, research philosophy, and, most significantly, to match the research questions and objectives. In conducting this study, the researcher has taken some questions related to the independent variable and the dependent variable of this study from previous studies, articles and even journals. The researcher adapted

questions from previous studies and used them as questions in the study to obtain information from respondents

3.5.1 Survey Strategy

This study used a survey strategy, which is commonly connected with a deductive approach. The survey method is a method of gathering data from simple respondents via questionnaires distributed online via Google Forms and completed by each responder. Furthermore, descriptive research is critical so that the researcher can gain a better understanding of the current phenomenon based on the data gathered. Furthermore, doing a questionnaire survey provides standardized data from a large population at a reduced cost, which can be easily compared. On the other hand, it enables researchers to verify the conditions under which IP Trademarks will have an impact on users. In survey research, potential reasons for specific correlations between variables are suggested, such as studying the influence of IP trademarks in F&B on consumers in this study.

3.5.2 Questionnaires Design

The web questionnaire has been prepared and organized. Self-completion questionnaires were employed, allowing respondents to answer questions based on their own perspectives. Furthermore, web questionnaires are data collection approaches for quantitative methodologies that employ numerical data to quantify and test hypotheses. A web questionnaire was also utilized to survey respondents about their perceptions of the impact of McDonald's use of intellectual property (trademarks) on customers. As a result, web surveys are more appropriate and cost-effective because researchers do not need to print questionnaires or pay for transportation because everything can be done online. It also saves time because the full questionnaire has been circulated through social media (Instagram) and

WhatsApp, with links that have been copied, pasted and forwarded to connect with each respondent widely.

The questionnaire was developed in three parts. Part A requires respondents to provide demographic information that includes their gender, age, race, education level, and occupation. This section consists of four multiple-choice questions and one double-choice question. Part B has 4 assertions that will focus on the independent variable in this study, which is trademark IP use in the food and beverage business. Finally, 12 statements are 34tilized in Part C to illustrate the impact of IP on consumers, with 4 questions addressing the influence of IP on customer perception of quality, purchase decision, and customer loyalty.

Next, respondents responded to this issue using a Likert scale, which provides a score from 1 to 5, with the numbers representing strongly disagree, disagree, natural, agree, and very agree. The Likert scale, a popular survey research method, is made up of a series of numerically coded responses (Emerson, 2017). The number of points on the scale influences its usefulness, with a 10-point scale outperforming a 5-point scale (Awang, 2016). Despite its widespread use, the Likert scale is not without controversy, notably in terms of its analysis and point allocation (Joshi, 2015).

Table 3.1: Questionnaire Design

Section	Content	Literature Review
A	**Respondent background:** • Gender • Age • Race • Educational level • Occupational	-
B	**Assessment of independent variables:** • Intellectual Property Protection Trademarks in F&B	• Jamar, S. D. (2011). The importance of trademarks in the digital age. Journal of Intellectual Property Law & Practice, 6(1), 17-23. • Kur, A. (2014). Too big to fail: The IP enforcement directive and the EU trademark system. International Review of Intellectual Property and Competition Law, 45(3), 250-268. • Tushnet, R. (2012). Trademark law as commercial speech regulation. University of Richmond Law Review, 46(4), 1109-1135.

		• McKenna, M. P. (2011). The normative foundations of trademark law. Notre Dame Law Review, 82(5), 1839-1886. Retrieved from https://scholarship.law.nd.edu/ndlr. • Trademarkroom. (2023), October 24). Strengthen consumer trust: How branding & trademarks affect perceptions. Trademarkroom
C	**Assessment of dependent variables:** • Impact Intellectual property Trademarks towards customer (customer perception of quality, purchase decision, and customer loyalty)	• Li, H., Xu, J., Fang, M., Tang, L., & Pan, Y. (2023). A Study and Analysis of the Relationship between Intellectual property Logos and Consumer Behavior. Behavioral Sciences, 13. • Zeithaml, V. A. (2018). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. Journal of Marketing, 52(3), 2-22. • Aaker, D. A. (2016). Measuring brand equity across products and markets. California Management Review, 38(3), 102-120. • Keller, K. L. (2019). Conceptualizing, measuring, and managing customer-based brand

		equity. Journal of Marketing, 57(1), 1-22. • Erdem, T., & Swait, J. (2019). Brand equity as a signaling phenomenon. Journal of Consumer Psychology, 7(2), 131-157. • Chaudhuri, A., & Holbrook, M. B. (2021). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. Journal of Marketing, 65(2), 81-93. • Erdem, T., Zhao, Y., & Valenzuela, A. (2004). Performance of store brands: A cross-country analysis of consumer store-brand preferences, perceptions, and risk. Journal of Marketing Research, 41(1), 86-100. • Bansal, H. S., Taylor, S. F., & James, Y. S. (2005). Migrating to new service providers: Toward a unifying framework of consumers' switching behaviors. Journal of the Academy of Marketing Science, 33(1), 96-115. • How confident are you in the durability and reliability of this

		product?" – This question assesses perceived quality through specific attributes such as durability, which affects the customer's overall perception of quality (Schmitt et al., 2014). • How likely are you to recommend our product based on its quality?" – Recommending a product reflects positive quality perception, which is closely tied to customer loyalty and satisfaction (Wang, 2013) • Bennett, R., & Rundle-Thiele, S. (2002). A comparison of attitudinal loyalty measurement approaches. Journal of Brand Management, 9(3), 193-209.

Table 3.2: Likert Scale (Emerson, R.W. (2017)

 Strongly Disagree			Strongly agree
1	**2**	**3**	**4**

3.5.3 Population

The study population is defined as a set of cases, determined, limited, and accessible, that will constitute the subjects for the selection of the sample, and must fulfill several characteristics and distinct criteria. The objectives of this manuscript are focused on specifying each one of the elements required to make the selection of the participants of a research project, during the elaboration of the protocol, including the concepts of study population, sample, selection criteria and sampling methods. Arias-Gómez, J., Villasís-Keever, M.Á., & Miranda-Novales, M.G. (2016).

The target population for this study is certain McDonald's customers in Malaysia. The target population is precisely defined as the focus is on McDonald's customers who have either made a purchase or shown interest in the brand. A clear sampling technique, such as random sampling or demographically stratified sampling, will be used from this target community of McDonald's Malaysian consumers to ensure a representative sample and avoid bias. This strategy will increase the overall validity of the study by allowing the results to be legitimately extrapolated to more Malaysians who shop at McDonald's Melaka.

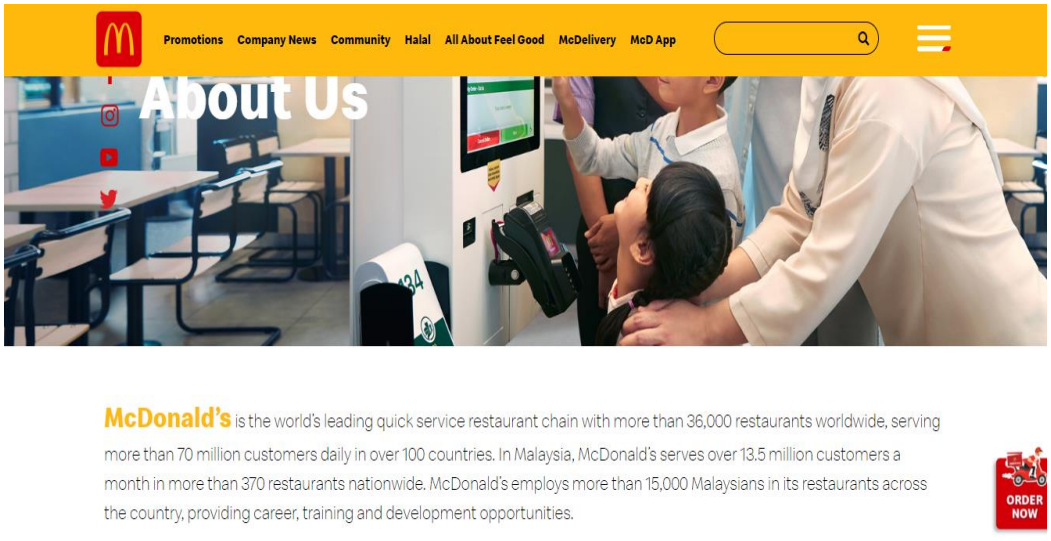

Figure 3.1: McDonald Official Website

3.5.4 Sampling Technique

Sampling techniques are important in research because they enable the collecting of data from a portion of a population, lowering costs and time (Haute, 2021). However, it is critical to understand how the data originated in the database, as this can influence the validity of the inferences drawn (Turner, 2020). This survey focuses on McDonald's, Melaka customers aged 16 and up who have had at least one experience with their food, drinks, or services.

For this study, the public is approached using a simple random sample method rather than probability sampling as employed by researchers. Advantage sampling approaches, as defined by Kalamkar (1932) and Wu (2001), provide numerous advantages in data collection and analysis. Kalamkar's wheat sampling research discovered that specific sampling units, such as those made up of four parallel half-meter lengths on adjacent rows, can yield more exact findings. Similarly, Wu's work on query estimation introduced a new sampling methodology based on the golden rule that produced lower approximation errors than prior methods. These findings demonstrate the potential of advantage sampling strategies to improve the accuracy and efficiency of data collecting and processing.

Therefore, the participants were chosen at random from Melaka, and the questionnaire was distributed online. Further, the researcher focuses on target respondents who can properly speak and understand English, as the questionnaire was constructed exclusively in English as the medium of delivery.

3.5.5 Sampling Size

This study collected data from a sample in Malaysia. Researchers used Malaysia as a study site to see how the use of IP (Trademarks) affects customers. Buyers who have purchased McDonald's products have been selected as respondents. To ensure statistical significance and representativeness, Krejcie & Morgan's sample size table in Appendix A, offers a reliable technique to establish an adequate sample size for McDonald's customer research in Malaysia. The official website of McDonald Malaysia states that there are 13.5 million total customers. Krejcie & Morgan's table tells us that a sample size of about 384 is appropriate for a population of about 100,000. As a conventional criterion for many research investigations, this calculation guarantees a margin of error of 5% and a confidence level of 95% (Krejcie & Morgan, 1970).

3.6 RESEARCH INSTRUMENT

This Section of survey is for collecting the organizational information from the respondent. Please answer (/) in the appropriate space provided.

SECTION A: ORGANIZATIONAL PROFILE	
No	**Question**
1	**What is your age?** o Below 19 o 20 – 39 years old o 40 – 49 years old o 50 years old and above
2	**What is your gender?** o Male o Female
3	**What is your race?** o Malay o Chinese o Indian o Others: _____
4	**What is your current education level?** o SPM o Diploma/STPM o Bachelor' Degree o Master's Degree o Ph.D.

5	**Have you has been Experience, buy or using the McDonald's product before?** ○ **Yes** ○ **No**

This section of the survey is for collecting the knowledge or general information of Intellectual property trademarks from the respondent.

Please answer (/) in the appropriate space provided

1	**2**	**3**	**4**

SECTION B: THE INTELLECTUAL PROPERTY TRADEMARKS					
No	**Question5**	1	2	3	4
1	Trademarks is familiar in protecting intellectual property.				
2	Trademark usually registered for business or personal use.				

3	Registering a trademark for business can perceived the primary benefits to company.				
4	Trademark is one of the protection properties to prevent infringement case.				
5	Businesses that have trademarks are usually big and safe businesses.				

This section of the survey is for collecting the data information of the impact using Intellectual property trademarks in the F&B industry toward customer from the respondent.

Please answer (/) in the appropriate space provided

SECTION C: IMPACT INTELLECTUAL PROPERTY TRADEMARKS TOWARDS CUSTOMER					
Customer Perception of Quality					
No	**Question**	1	2	3	4
1	The quality of the products they produce is trusted.				
2	The quality of the products they produce is more convincing.				

3	Association trademarks perceived quality of products or services.				
4	Trademarks make customers confident in the product's durability and reliability.				
5	Products that use trademarks are always recommended because of the quality obtained.				
Customer purchase decision					
1.	Recognizable trademark influences your trust in the purchasing of a product.				
2.	Trademarks influence your decision to buy a new product from an unknown brand.				
3.	Trademarks reduce your perceived risk when purchasing a product for the first time				
4.	Well-known trademarks product influence purchase even though product have higher value.				
5.	A business that has a trademark can influence customers to give reviews to their contacts and increase their contacts' purchasing decisions.				

Customer loyalty					
1.	Trademarks are in fostering customer loyalty towards a brand.				
2.	Brands with well-known trademarks often recommended to friends and family.				
3.	Recognize through their trademarks you willing to pay a premium price for products from brands.				
4.	Lacks a recognizable trademark compared to one that you trust influence you to switch to a competing brand				
5.	Customers are always loyal to businesses that have a trademark because there is sure to be no problem with the products or services provided.				

3.7 LOCATION RESEARCH

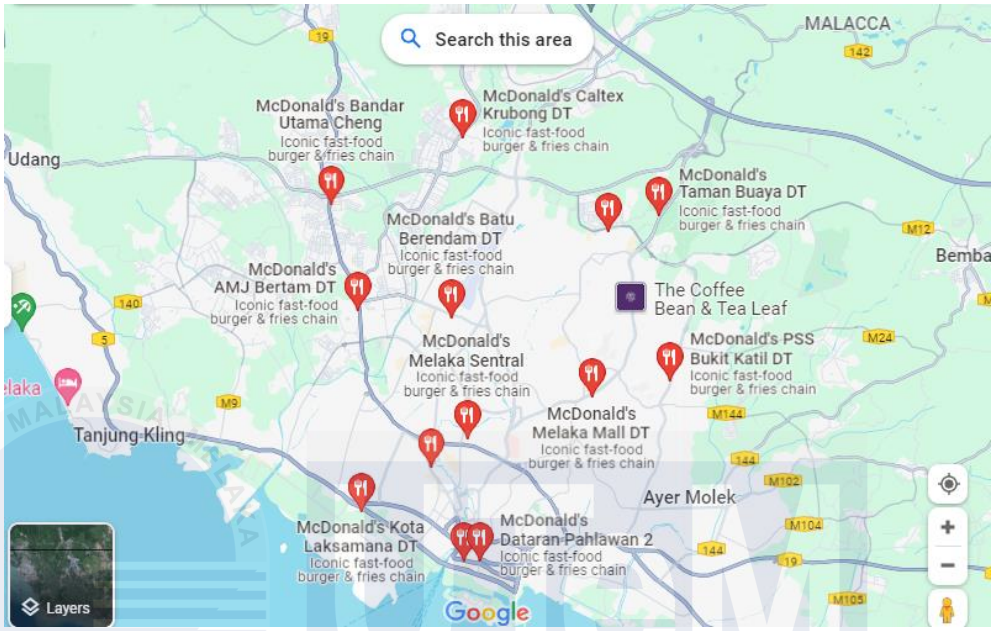

Figure 3.2: Location of 15 McDonald's Melaka Malaysia Map. (Google Maps, 2024)

This research investigation was conducted in Malacca, Malaysia (Figure 3.3). Malaysia is located in Southeast Asia and consists of thirteen states and three federal territories. Melaka is a state in the south of the Malay Peninsula of Malaysia. Its strategic location on the southwest coast, bordering Negeri Sembilan in the north and Johor in the south, has contributed significantly to its historical and cultural diversity. However, the main location of this research is McDonald's Melaka, because Melaka is a historic township that has tourist arrivals. Based on McDonald's official website, a total of 15 restaurants have been built and are operating in Malacca, Malaysia. Because the state of Melaka is a famous tourist destination in Malaysia, it attracts a large number of visitors and tourists. This allows researchers to easily analyze and evaluate the impact of the use of intellectual property trademarks on McDonald's customers depending on the demographic group. In addition, the high-speed internet connection in Melaka makes it easier for researchers to carry out this study. Finally, this research study only involved 384 respondents who had all used McDonald's services in Melaka before.

3.8 DATA ANALYSIS TOOLS

Several data analysis technologies were used in this study. Cronbach's alpha, Pearson correlation analysis, and multiple regression analysis are all examples of descriptive analysis, which uses sample frequency to determine respondents' demographic profiles. Data analysis in this study is carried out using the Statistical Package for Social Scientists (SPSS) software. The researcher utilized SPSS to analyze and interpret a variety of data. This programme effectively organizes vast amounts of data to aid in the evaluation process of data collecting and scheduling for quantitative research. Data obtained from the district is then processed by software to produce results and summary information.

The data for this study was collected over three months through distribution on social media platforms using Google Forms. This approach allowed the researcher to reach a broad audience quickly and efficiently. However, there were notable challenges during the data collection process. One significant issue was the difficulty in obtaining responses from individuals who do not have internet access, such as those in rural areas or older demographics. This limitation led to an underrepresentation of certain groups in the study and potentially introduced bias into the findings. Despite these challenges, the use of SPSS helped organize and analyze the collected data effectively, providing meaningful insights into the impact of intellectual property trademarks on customer behavior in the food and beverage industry.

3.8.1 Pilot Test

Zimin (2018) emphasized the need of selecting the proper volume of pilot testing while developing enterprise resource planning systems. Gani (2020) emphasized its importance in determining the validity and reliability of qualitative interview data, notably in the field of social science. Finally, Tate (2023) explained how pilot testing might be utilized to improve interview and questionnaire abilities, particularly in online research techniques courses. These findings highlight the importance of pilot testing in increasing the quality and efficacy of various

programmes and systems. Pilot testing can reveal errors and weaknesses in the questionnaire, allowing it to be changed to assure accuracy before being disseminated to respondents. The final survey questionnaire was created using ideas and information gathered from respondents during pilot testing.

In this pilot test, a small sample of respondents were evaluated in the first step to see if the questionnaire could collect the data required by the researcher. To improve the questionnaire's validity and reliability, at least 30 participants who had previously utilized McDonald's services were chosen for the pilot test (Jarina et al., 2019. As a result, a pilot test was conducted to ensure the questionnaire's validity and reliability. Following data collection, the researcher revised the questionnaire to ensure that respondents understood the questions and provided more accurate data.

3.8.2 Reliability

Despite these difficulties, reliability is still an important part of assessment and measurement, assuring the correctness and consistency of outcomes (Sharts-Hopko, 2002). Shuttleworth, M., & Wilson, L.T. (2019). No matter how many times you weigh the bowl, a dependable scale will always give you the same result. Reliability is an assessment of a process's capacity to provide consistent and steady results. There are various methods for measuring reliability. The researchers utilized Cronbach's alpha to measure reliability. Cronbach's Alpha is a statistic that indicates if tests and scales intended for study are acceptable. Cronbach's Alpha consists of alpha coefficients with values ranging from 0 to 1. Table 3.3 displays the range of Cronbach's Alpha Coefficient and Strength of Association. Cronbach's alpha values equal to or greater than 0.7 are considered acceptable. Cronbach's Alpha is regarded good when it surpasses 0.8, and exceptional when it exceeds 0.9. Cronbach's Alpha is deemed weak if less than 0.6, and unacceptable if less than 0.5. In this study, the four dependent variables and one independent variable will be examined for reliability.

Table 3.3: Cronbach's Alpha Coefficient Range

(Saunders, Lewis and Thornhill, 2016)

Cronbach's Alpha Coefficient Range	Strength of Association
$a \geq 0.9$	Excellent
$0.9 > a \geq 0.8$	Good
$0.8 > a \geq 0.7$	Acceptable
$0.7 > a \geq 0.6$	Questionable
$0.6 > a \geq 0.5$	Poor
$0.5 > a$	Unacceptable

Before starting the process of distributing the questionnaire to the larger group, a pilot test with a small group of respondents was conducted to confirm the research topic. The purpose of the pilot test was to demonstrate the reliability of the questionnaire (Saunders et. al., 2016). It was important to ensure that respondents understood and were not confused by the questions asked in the survey.

The researcher prepared 30 sets of questionnaires for pilot testing to obtain feedback from the respondents. The researcher used SPSS to study the reliability of the data, and the Cronbach Alpha technique was used to assess the reliability of the data. A Cronbach Alpha value of 0.7 and above, according to Saunder et al. (2016), is considered acceptable. Although it is better if the Cronbach Alpha is more than 0.8, those with 0.9 and above are considered excellent.

Independent Variable (Intellectual Property Protection (Trademarks)

Table 3.4: Reliability Statistics for Independent Variable

(Intellectual Property Protection Trademarks)

Sources: (SPSS Output)

Case Processing Summary			
		N	%
Cases	Valid	27	90.0
	Excluded[a]	3	10.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.945	.947	5

The reliability statistics for the Independent Variable is the impact of intellectual property trademarks on business in Table 3.4. The questionnaire contains 5 questions in the impact of intellectual property trademarks section. The Cronbach's Alpha value is 0.947, which is higher than 0.9. As a result, it is considered **excellent.**

Dependent Variable 1 (Customer Quality)

Table 3.5: Reliability Statistics for Dependent Variable 1

(Customer Perception of Quality)

Sources: (SPSS Output)

Case Processing Summary			
		N	%
Cases	Valid	27	90.0
	Excluded[a]	3	10.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.946	.947	5

The reliability statistics for the Dependent Variable is Customer Perception of Quality which is shown in Table 3.5, The questionnaire contains 5 questions in the user experience section. The Cronbach's Alpha value is 0.947, which is higher than 0.9. As a result, it is considered **excellent**.

Dependent Variable 2 (Customer Purchase)

Table 3.6: Reliability Statistics for Dependent Variable 2

(Customer Purchase)

Sources: (SPSS Output)

Case Processing Summary			
		N	%
Cases	Valid	27	90.0
	Excluded[a]	3	10.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.919	.921	5

The reliability statistics for the Dependent Variable is Customer Purchase which is shown in Table 3.6. The questionnaire contains 5 questions in the user experience section. The Cronbach's Alpha value is 0.921, which is higher than 0.9. As a result, it is considered **excellent**.

Dependent variable 3 (Customer Loyalty)

Table 3.7: Reliability Statistics for Dependent Variable 3

(Customer Loyalty)

Sources: (SPSS Output)

Case Processing Summary			
		N	%
Cases	Valid	27	90.0
	Excluded[a]	3	10.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.928	.929	5

The reliability statistics for the Dependent Variable is Customer Loyalty which is shown in Table 3.7. The questionnaire contains 5 questions in the user experience section. The Cronbach's Alpha value is 0.929, which is higher than 0.9. As a result, it is considered **excellent**.

Reliability statistic for all Items (Overall)

Table 3.8: Reliability Statistics for All Variables

Sources: (SPSS Output)

Case Processing Summary			
		N	%
Cases	Valid	27	90.0
	Excluded[a]	3	10.0
	Total	30	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.978	.978	20

The reliability statistics for all items are shown in Table 3.8. The questionnaire consists of 20 questions. The Cronbach's Alpha value is 0.978, which is higher than 0.9. As a result, it suggests that it has high reliability, and that the questionnaire was trustworthy.

3.8.3 Validity

The concept of validity is complicated and diverse, with different meanings and purposes depending on the context in which it is applied. Shepard (2013) emphasizes the necessity of assessing the aim of assessment when determining validity, especially in the context of educational reform. A high validity value indicates that the study provides a high level of confidence. Internal validity is established when research demonstrates a causal relationship between two variables. Internal validity will be established for survey questionnaires by demonstrating that a group of questions is statistically connected with factors or analytical outcomes. This study used a questionnaire to investigate the impact of IP trademarks on consumers at McDonald's, Melaka, Malaysia. To circumvent validity risks, researchers conduct pilot experiments on small groups. The researcher will proceed to the actual focus group if the questionnaire shows strong validity.

3.8.4 Descriptive Analysis

During this research, descriptive statistics were employed to condense large amounts of information into a manageable summary. Ma (2020) warns that while descriptive analytics can provide factual information, it is insufficient for comprehending and predicting future issues, and proposes using predictive analytics for this purpose. Descriptive statistics can establish the fundamental characteristics of a study and are typically employed for controlled quantitative descriptions. This study's descriptive analysis aims to characterize and compare statistical variables. Descriptive analysis can help researchers understand numerical variables as well as factors centred on respondents' "demographic information". The most commonly used data types in descriptive statistics are Mode, Mean, and Mean. Descriptive studies were previously employed to categorize the population. Each descriptive statistic helps to explain enormous amounts of data more clearly. The researcher employed descriptive analysis

(frequency distribution) to differentiate gender, age, race, degree of education, and occupation among respondents of McDonald's MITC, Ayer Keroh, Melaka.

3.8.5 Pearson's Correlation Coefficient

Pearson's Correlation Coefficient ® indicates how strong a relationship exists between two variables. In this study, Pearson's Correlation Coefficient was used to determine the strength of the relationship between the independent variable, intellectual property protection (trademarks), and the dependent variable, impact on user customer perception of quality, purchase decision, and customer loyalty. Significant or not.

Pearson's correlation, which measures the degree and direction of a linear relationship between two variables, has been studied from a variety of angles. Liu (2019) provides a probabilistic explanation, focusing on the computation of concordant pairs. Positive linear correlation suggests that increasing one variable will lead to a rise in other variables. For a negative linear correlation, increasing one variable causes the other variable's correlation to drop. If the correlation coefficient is 0, it indicates that there is no linear link between the variables. In this study, one independent variable and three dependent variables are researched simultaneously to investigate the link between each variable.

Table 3.9: Pearson's Correlation Coefficient

Perfect native	**Strong native**	**Weak native**	**Perfect Independent**	**Weak Positive**	**Strong Positive**	**Perfect Positive**
-1	-0.7	-0.3	0	0.3	0.7	1

3.7.6 Multiple Regression Analysis

Multiple regression analysis is a fundamental statistical method in data science that focuses on variable selection and statistical causal inference (Iwasaki, 2020). This method estimates the association between a dependent variable and many independent factors, particularly for educational data (Uyanık, 2013). MRA assists researchers in determining which independent variables, such as IP trademarks, have the greatest impact on the dependent variables, which are user customer opinion of quality, purchase decision, and customer loyalty. Additionally, the equation for the multiple regression analysis is presented below:

Table 3.10: Equation of Multiple Regression Analysis

A	Constant/ Other influence
Y	Independent Variables
X	Dependent Variable
B	Influence of X1, (Customer perception of quality)
C	Influence of X2 (Purchase decision)
D	Influence of X3 (Customer loyalty)

3.8.7 Statistical Package for Social Scientists (SPSS)

In the present research, the statistical programme for social sciences (SPSS) was utilized to properly analyze and interpret the data. SPSS is the most popular and easy-to-use software tool for analyzing, managing, and presenting statistical data. Then, to analyze all of the data from 384 respondents, SPSS software is required to reduce the researcher's effort and ensure appropriate analysis.

3.9 TIME HORIZON

Ebert (1973) defines time horizon as the time period within which a decision-maker acts, and it is critical for attaining organizational goals. Due to time constraints, the researcher used a cross-sectional study to collect and analyze data for this study. This is due to the researcher's restricted time, with only 8 months to finish the investigation. A cross-sectional study is one that investigates a phenomenon at a specific point in time. Most research projects in academic courses are time-constrained (Saunders et al., 2016)

3.10 SUMMARY

In Chapter 3, the researcher defines the research approach by deciding on the research design, data collection method, and survey. The researcher employed a descriptive research design and quantitative approaches for this investigation. This study's data sources include both primary and secondary data. The survey method was employed to collect input for this investigation.

The researcher choose McDonald's Melaka, Malaysia, as the research site. The researcher conducted the questionnaire design, sampling design, and pilot test in a cross-sectional study. The researcher analysed the data using the Statistical Package for Social Science (SPSS), and the data analysis tool explained the Pilot Test, Cronbach's Alpha, Validity Test, descriptive analysis, Multiple Regression Analysis, and Pearson's Correlation Coefficient. Various measures have been 59tilized to ensure that this research study may be considered credible.

CHAPTER 4

DATA ANALYSYS AND DISCUSSION

4.0 INTRODUCTION

This chapter has provided data and discussion on this study. It has showed the success of fulfilling the objectives of this research. This chapter presents and discusses the results of data analysis obtained from respondents. In this study, 386 questionnaires were collected using a researcher-based survey and distributed to respondents via online randomly via the online Google Survey Form. The researcher analyzed all data obtained using the Statistical Package for Social Sciences (SPSS) and prepared it in tabular form.

4.1 REALIBILIY ANALYSYS

A reliability study was used to determine the variable's internal validity. Above 0.7, the Cronbach Alpha coefficient is acceptable (De Vellis, 2003). Saunders, Lewis and Thornhill, (2016) backed up this claim, stating that the lowest acceptable reliability value is 0.7. The Cronbach Alpha's thumb guidelines are as follows:

Table 4.1: Cronbach's Alpha Coefficient Range

Source: (Saunders, Lewis and Thornhill, 2016)

Cronbach's Alpha Coefficient Range	Strength of Association
$a \geq 0.9$	Excellent
$0.9 > a \geq 0.8$	Good
$0.8 > a \geq 0.7$	Acceptable
$0.7 > a \geq 0.6$	Questionable
$0.6 > a \geq 0.5$	Poor
$0.5 > a$	Unacceptable

Table 4.2: Reliability Analysis of Each Variables

Sources: (SPSS Output)

Variables	Cronbach's Alpha	Reliability
Independent variable: *Intellectual property protection Trademarks (IP)*	0.843	Good
Dependent variables 1 *Customer Quality (CQ)*	0.825	Good
Dependent variables 2 *Customer Purchase (CP)*	0.824	Good
Dependent variables 3 Customer Loyalty (CL)	0.837	Good

Within this research, the overall Cronbach Alpha for the independent variables (Impact Intellectual Property Protection trademarks) is 0.843, while the overall alpha for dependent variable (Customer perception of Quality, Customer Purchase, Customer Loyalty) is 0.843. Both alpha readings for are Good based on the table above 4.2.

Source: (SPSS)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.935	.935	4

4.2 DESCRIPTIVE STATISTIC OF DEMOGRAPHIC BACKGROUND

In this research, descriptive statistics was used by the researcher to analyse the demographic background for the total of 386 respondents. The demographics background of 386 respondents (N=386) was analysed by using descriptive frequency analysis and the data was summarized in Table 4.3. In this section, the background of respondents is analysed include gender, age, race, education level and using or having experience by using McDonald's Product in they life.

Table 4.3: Total Respondents

Source: (Output from SPSS)

STATISTICS					
		EDUCATION LEVEL	GENDER	RACES	AGES
N	Valid	386	386	386	386
	Missing	0	0	0	0

4.2.1 AGES

Table 4.4: Frequency and Percentage of Age

Source: (Output from SPSS)

AGES					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 19	67	17.4	17.4	17.4
	20 - 39 Years Old	221	57.2	57.2	74.6
	40 – 49 Years Old	68	17.6	17.6	92.2
	50 Years Old and Above	30	7.8	7.8	100.0
	Total	386	100.0	100.0	

Based on Table 4.4, there are total 4 categories of age group. Overall, the respondents are mostly from age group of 20 to 39 which are 221 respondents made up of 57.2% of the total respondents. This is then followed by 68 respondents (17.6%) which fall under age group of 40 to 49 and 67 respondents (17.4%) which represents age group years old. Last but not least group ages 50 years old and above has 30 respondent (7.8%) the result is similar with the research done by Akhtar, D. (2016) where most of the respondent are from the age group of 16-30.

4.2.2 GENDER

Table 4.5: Frequency and Percentage of Gender

Source: (Output from SPSS)

GENDER					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	271	70.2	70.2	70.2
	Female	115	29.8	29.8	100.0
	Total	386	100.0	100.0	

According to Table 4.5, shows that the gender of all 386 respondents who were answering the questionnaires. There are total of 386 respondents where 29.8% were made up of female which represent 115 respondents and 70.2% or 271 respondents were male. Male respondents were somewhat higher than female respondents.

4.2.3 RACE

Table 4.6: Frequency and Percentage of Race

Source: (Output from SPSS)

RACES					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	228	59.1	59.1	59.1
	Chinese	96	24.9	24.9	83.9
	Indian	50	13.0	13.0	96.9
	Others	12	3.1	3.1	100.0
	Total	386	100.0	100.0	

Table 4.6 shows the statistics of the number of races. The higher proportion of race involved in this research is Malay which is 228 respondents or 59.1% and the lower respondents in this statistic of the race is others category which is 12 respondents or 3.1% of the percentage. Other than that, there were 96 respondents or 24.9% is Chinese and lastly follow by 50 respondents or 13% is from Indian race.

4.2.4 EDUCATION LEVEL

Table 4.7: Frequency and Percentage of Highest Education Level

Source: (Output from SPSS)

EDUCATION LEVEL					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SPM	60	15.5	15.5	15.5
	Diploma/STPM	114	29.4	29.4	44.8
	Bachelor' Degree	141	36.3	36.3	81.2
	Master's Degree	49	12.6	12.6	93.8
	Ph.D.	22	6.2	6.2	100.0
	Total	386	100.0	100.0	

From Table 4.7, it showed that highest education level of respondents. Most of the respondents are from education level of bachelor degree which represents 141 respondents with 36.3%. The respondents from Diploma or STPM level were in second position which made up of 114 respondents with 29.4 %. This is then followed by 60 respondents or 15.5% with SPM level. Next, followed by respondents with Master's Degree qualification with a total number of 49 respondents with 12.6% and 22 respondents or 6.2% PhD.

4.3 DESCRIPTIVE STATISTICS ON INDEPENDENT VARIABLES AND DEPENDENT VARIABLE

The researcher used five-point Likert Scale to identify the impact of intellectual property trademark to customer. The Likert Scale will be a fours point rating scale in which 1 represent strongly disagree, 2 represented disagree, 3 agree and 4 represented strongly agree.

Table 4.8: Descriptive Analysis Independent Variables and Dependent Variable

Source: (Output from SPSS)

DESCRIPTIVE STATISTICS					
	N	Minimum	Maximum	Mean	Std. Deviation
Independent Variables					
Intellectual Property protection (Trademarks)	386	1.00	4.00	3.1197	.79117
Dependent Variables					
Customer perception Quality	386	1.00	4.00	3.0969	.76823
Customer Purchase	386	1.00	4.00	3.0751	.77751
Customer Loyalty	386	1.00	4.00	3.0713	.79959
Valid N (listwise)	386				

Table 4.8 has displayed the result from descriptive statistics of independent variables and dependent variable by using SPSS. The independent variables were the impact of Intellectual property protection (Trademarks) while dependent variable the customer perception of quality, customer purchase, and customer loyalty. From the table above, Intellectual Property protection (Trademarks) scored the highest mean value which is 3.150 which means that most of the respondents agreed with the statement about customers will make purchases if there is intellectual property protection Trademarks in a company (McDonald's). Renny (2013) confirmed this finding, stating that the purchase occurs due to the existence of protection (trademark) in a business, indirectly their desire to use services and purchase products is much greater.

For the Customer Purchase variable, the mean score is 3.12, which is the second highest among the variables. This suggests that respondents generally have a positive inclination towards making purchases, as the score is slightly above the neutral point (assuming a Likert scale from 1 to 4, where 3 might represent "Agree" or a similar positive response). This relatively high mean indicates that, on average, customers are more inclined to make purchases compared to some other aspects being measured.

Meanwhile, Customer Perception Quality and Customer Loyalty both have mean scores of 3.11, slightly lower than Customer Purchase but still indicating a generally positive response. Overall, the mean score of 3.12 for Customer Purchase reflects that this aspect is relatively well-regarded by respondents, suggesting a positive purchasing behavior trend among the sample population.

4.3.1 Descriptive Statistics of Independent Variable (IV)

Table 4.9: Descriptive Analysis Independent Variables Intellectual Property Protection (Trademarks)

Source: (Output from SPSS)

DESCRIPTIVE STATISTICS					
	N	Minimum	Maximum	Mean	Std. Deviation
IP1- Trademarks is familiar in protecting intellectual property.	386	1	4	3.09	1.023
IP2- Trademark usually registered for business or personal use.	386	1	4	3.15	1.004
IP3- Registering a trademark for business can perceived the primary benefits to company.	386	1	4	3.15	1.002
IP4- Trademark is one of the protection properties to prevent infringement case.	386	1	4	3.08	1.041
IP5- Businesses that have trademarks are usually big and safe businesses.	386	1	4	3.13	.971
Valid N (listwise)	386				

Based on the table, both IP2 (Trademark usually registered for business or personal use) and IP3 (Registering a trademark for business can perceived the primary benefits to company) have the same mean score of 3.15, making them tied for the second highest mean among the listed items. This indicates that respondents generally agree with these statements to a similar extent.

However, when comparing the standard deviation, IP2 has a slightly higher value (1.004) compared to IP3 (1.002). The standard deviation measures how much the responses vary around the mean. A higher standard deviation for IP2 suggests that respondents' opinions on the statement about trademarks being usually registered for business or personal use are more varied compared to the responses for IP3.

The slightly higher standard deviation for IP2 means there is more diversity in how strongly respondents feel about the importance of trademark registration for business or personal use, whereas opinions about the benefits of registering a trademark for a company (IP3) are slightly more consistent.

4.3.2 Descriptive Statistics of Dependent Variable (DV1)

Table 4.10: Descriptive Analysis Dependent Variable 1 (Customer Perception of Quality)

Source: (Output from SPSS)

DESCRIPTIVE STATISTICS					
	N	Minimum	Maximum	Mean	Std. Deviation
CQ1- The quality of the products they produce is trusted.	386	1	4	3.10	1.030
CQ2- The quality of the products they produce is more convincing.	386	1	4	3.07	1.018
CQ3- Association trademarks perceived quality of products or services.	386	1	4	3.11	.996
CQ4- Trademarks make customers confident in the product's durability and reliability.	386	1	4	3.10	.959
CQ5- Products that use trademarks are always recommended because of the quality obtained.	386	1	4	3.10	1.003
Valid N (listwise)	386				

The table presents descriptive statistics for the dependent variable related to Customer Perception of Quality (CQ). CQ3 (Association trademarks perceived quality of products or services) has the highest mean score of 3.11. This indicates that respondents agree most strongly with the statement that trademarks are associated with the perceived quality of products or services. The relatively low

standard deviation of .996 suggests that opinions on this statement are fairly consistent across respondents.

Meanwhile, CQ1 (The quality of the products they produce is trusted), CQ4 (Trademarks make customers confident in the product's durability and reliability), and CQ5 (Products that use trademarks are always recommended because of the quality obtained) all share the second highest mean of 3.10. This reflects a strong level of agreement regarding the trust and confidence customers have in the quality of trademarked products. Among these, CQ4 has the lowest standard deviation of .959, indicating the most consistent agreement among respondents about the confidence in product durability and reliability due to trademarks.

Last, CQ2 (The quality of the products they produce is more convincing) has the lowest mean score of 3.07. Although still above neutral, this slightly lower mean suggests that respondents agree slightly less strongly with this statement compared to others. The standard deviation for CQ2 is 1.018, indicating a moderate level of variability in responses.

4.3.3 Descriptive Statistics of Dependent Variable (DV2)

Table 4.11: Descriptive Analysis Dependent Variable 2 (Customer Purchase)

Source: (Output from SPSS)

DESCRIPTIVE STATISTICS					
	N	Minimum	Maximum	Mean	Std. Deviation
CP1- Recognizable trademark influences your trust in the purchasing of a product.	386	1	4	3.12	1.024
CP2- Trademarks influence your decision to buy a new product from an unknown brand.	386	1	4	3.11	.990
CP3- Trademarks reduce your perceived risk when purchasing a product for the first time.	386	1	4	3.06	1.017
CP4- Well-known trademarks product influence purchase even though product have higher value.	386	1	4	3.07	1.047
CP5- A business that has a trademark can influence customers to give reviews to their contacts and increase their contacts' purchasing decisions.	386	1	4	3.01	.991
Valid N (listwise)	386				

In DV2 (likely related to purchasing decisions), the highest mean is observed for CP1 (3.12), suggesting that respondents strongly agree that recognizable trademarks influence their trust in purchasing decisions. The second-highest mean is for CP2 (3.11), reflecting a high level of agreement that trademarks impact the decision to buy new products from unknown brands. Other variables, such as CP3, CP4, and CP5, show slightly lower means, indicating moderate agreement on their respective statements

4.3.4 Descriptive Statistics of Dependent Variable (DV3)

Table 4.12: Descriptive Analysis Dependent Variable 3 (Customer Loyalty)

Source: (Output from SPSS)

DESCRIPTIVE STATISTICS					
	N	Minimum	Maximum	Mean	Std. Deviation
CL1- Trademarks are in fostering customer loyalty towards a brand.	386	1	4	3.05	1.043
CL2- Brands with well-known trademarks often recommended to friends and family.	386	1	4	3.11	1.023
CL3- Recognize through their trademarks you willing to pay a premium price for products from brands.	386	1	4	3.06	.999
CL4- Lacks a recognizable trademark compared to one that you trust influence you to switch to a competing brand.	386	1	4	3.06	1.008
CL5- Customers are always loyal to businesses that have a trademark because there is sure to be no problem with the products or services provided.	386	1	4	3.07	1.048
Valid N (listwise)	386				

DV3 (likely customer loyalty), the highest mean is found in CL2 (3.11), which indicates that respondents agree that brands with well-known trademarks are frequently recommended to friends and family. The second-highest mean is observed for CL5 (3.07), showing agreement that customers remain loyal to businesses with trademarks due to their perceived reliability. The other variables, such as CL1, CL3, and CL4, exhibit slightly lower mean values, indicating moderate levels of agreement regarding the role of trademarks in fostering customer loyalty and influencing purchasing decisions.

4.4 NORMALITY TEST

The normality test is essential for determining whether the data follows a normal distribution, which is crucial for many statistical analyses. According to Perry (2020), a normal distribution is characterized by a symmetrical, bell-shaped curve where most of the data clusters in the center, and only a small proportion of data lies in the tails. This distribution serves as a standard benchmark for evaluating the shape of data distributions. A dataset is considered normally distributed when the Skewness values fall between -2 and +2, and Kurtosis values are between -7 and +7 for larger sample sizes. In this study, the researcher employed Skewness and Kurtosis values to assess the normality of the data using SPSS. This approach provides a quantitative method to ensure the dataset is suitable for further parametric analysis, aligning with best practices for statistical evaluation.

Table 4.13: Result of Normality test

Source: (Output from SPSS)

Descriptive Statistics							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IP	386	3.1174	.79092	-.213	.124	-1.286	.248
CQ	386	3.0945	.76784	-.156	.124	-1.174	.248
CP	386	3.0727	.77709	-.288	.124	-1.074	.248
CL	386	3.0689	.79922	-.207	.124	-1.096	.248
Valid N (listwise)	386						

The researcher used the obtained value of Skewness and Kurtosis to test the normality of the variables. Based on the theory, the value of Skewness obtained between -2 and + 2 and the value of Kurtosis value must be between -7 and + 7. If any outputs from any variables are out of the range, the variables are non-normal. According to the table 4.13, the values of Skewness and Kurtosis were within the

range which indicated that all variables are normal. Below are the results of all variables in distribution curve.

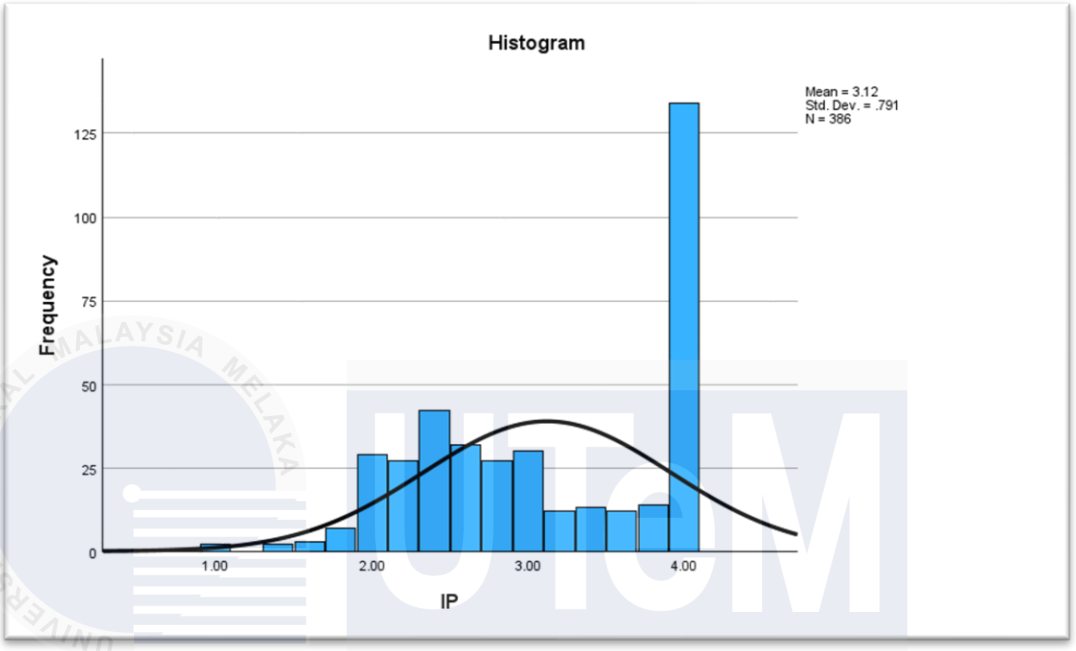

Figure 4.1: Distribution curve for Independent Variable (Intellectual property trademarks)
Source: (Output from SPSS)

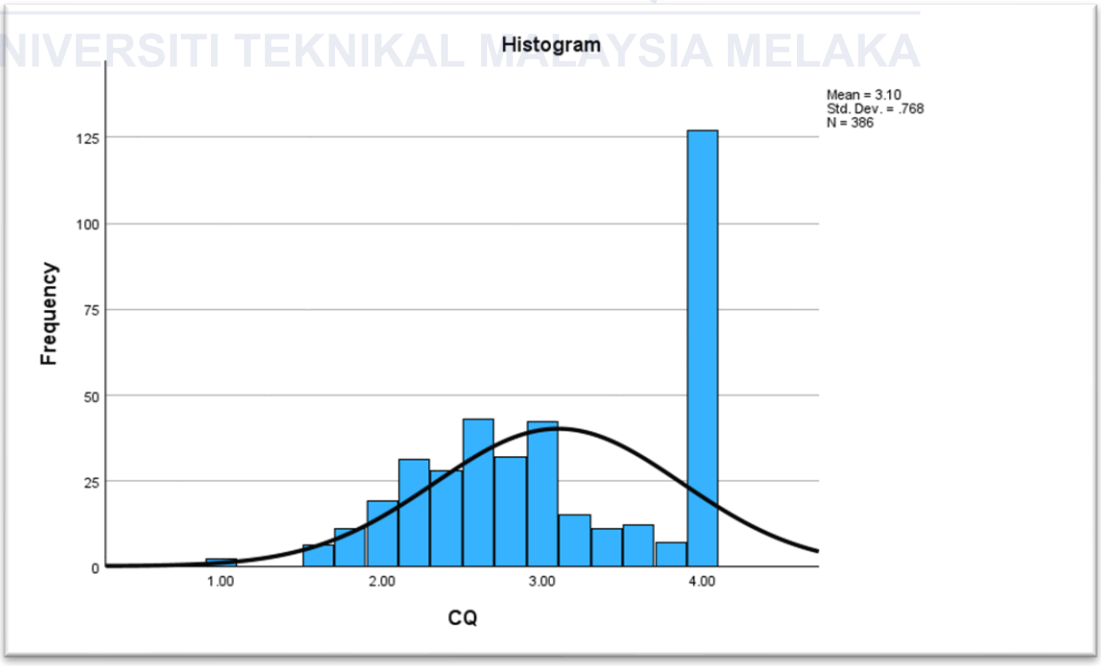

Figure 4.2: Distribution curve for Dependent Variable 1 (Customer Perception Quality)
Source: (Output from SPSS)

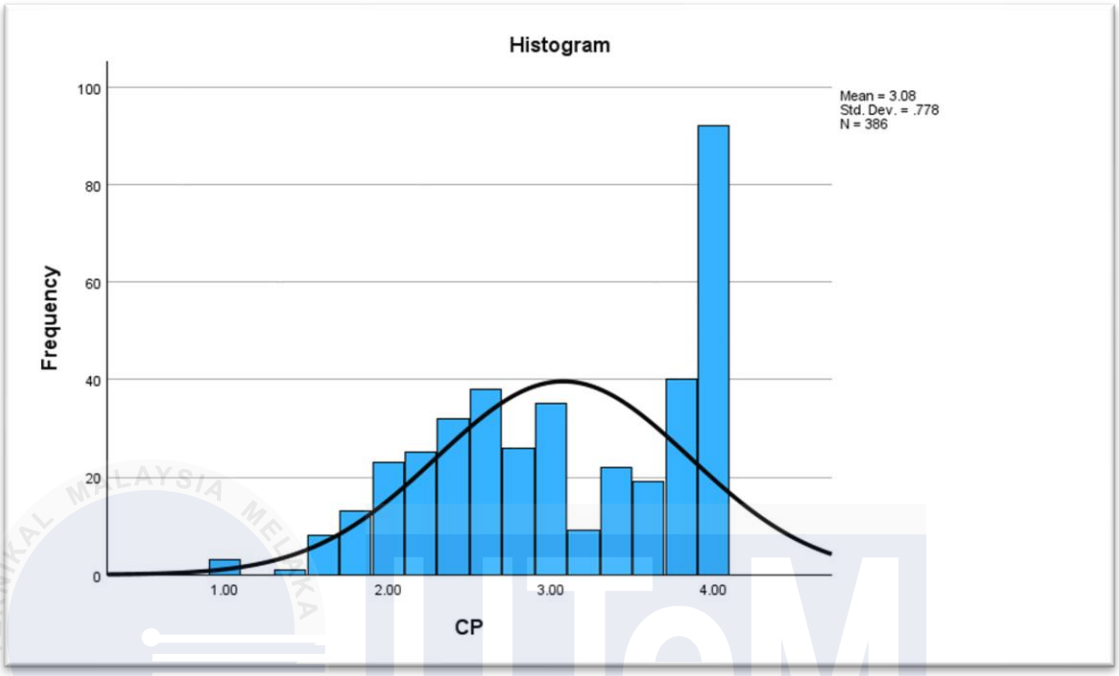

Figure 4.3: Distribution curve for Dependent Variable 2 (Customer Purchase)

Source: (Output from SPSS)

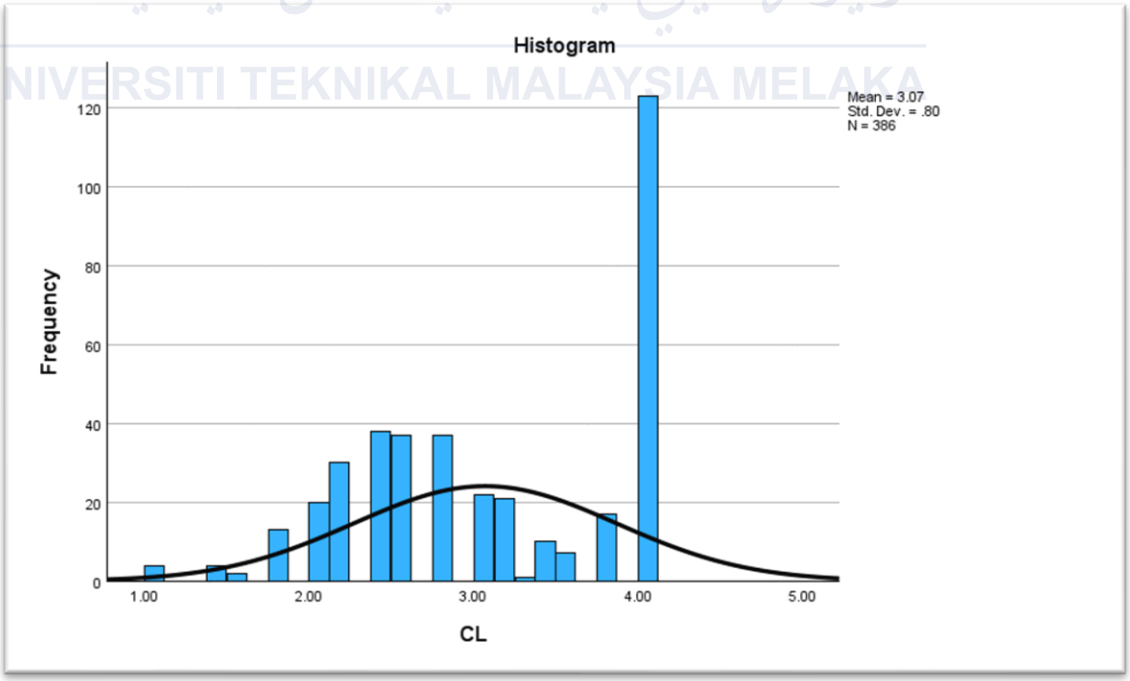

Figure 4.3: Distribution curve for Dependent Variable 3 (Customer Loyalty)

Source: (Output from SPSS)

4.5 VALIDITY TEST

Pearson Correlation was used to conduct the validity test, which is used to explain the connection between independent and dependent variables. According to Saunders et al. (2016), the correlation coefficient would be used to determine the strength of the link between independent and dependent variables. The Pearson's Correlation Coefficients for evaluating the correlation range of the R-Values are shown in Table 4.14

Table 4.14: Range of Pearson's Correlation Coefficients and the Interpretation

Source: (Saunders et. al., 2016)

Pearson's Correlation Coefficient (R-values)	**Interpretation**
± 0.70 to ± 1.0	Very strong relationship
± 0.40 to ± 0.69	Strong relationship
± 0.30 to ± 0.39	Moderate relationship
± 0.20 to ± 0.29	Weak relationship
± 0.20 to ± 0.29	No relationship

4.5.1 Pearson's Correlation Coefficients

Table 4.15: Correlations between Variables

Source: (Output from SPSS)

CORRELATIONS					
		IV	**DV 1**	**DV 2**	**DV 3**
Intellectual Property Trademarks (IV)	Pearson Correlation	1	**.800****	**.780****	**.730****
	Sig. (2-tailed)		<.001	<.001	<.001
	N	386	386	386	386
Customer Quality (DV1)	Pearson Correlation	.800**	1	.784**	.789**
	Sig. (2-tailed)	<.001		<.001	<.001
	N	386	386	386	386
Customer Purchase (DV2)	Pearson Correlation	.780**	.784**	1	.813**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	386	386	386	386
Customer Loyalty (DV3)	Pearson Correlation	.730**	.789**	.813**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	386	386	386	386
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 4.15 presents the correlation results between the independent variable (Intellectual Property Trademarks) and the dependent variables (Customer Quality, Customer Purchase, and Customer Loyalty).

The relationship between Intellectual Property Trademarks and Customer Quality (DV1) is very strong, with a correlation coefficient (r) of 0.800, indicating a significant positive relationship (n=386, p<0.01). Similarly, Customer Purchase (DV2) also exhibits a strong positive relationship with Intellectual Property Trademarks, with an r value of 0.780 (n=386, p<0.01). The relationship between

Intellectual Property Trademarks and Customer Loyalty (DV3) is slightly weaker but still strong, with an r value of 0.730 (n=386, $p<0.01$).

Among the dependent variables, Customer Purchase (DV2) and Customer Loyalty (DV3) show a very strong relationship, with a correlation coefficient of 0.813 (n=386, $p<0.01$), highlighting a significant positive association between these two variables. The relationship between Customer Quality (DV1) and Customer Loyalty (DV3) is also strong, with an r value of 0.789 (n=386, $p<0.01$).

In summary, the correlation analysis indicates that Intellectual Property Trademarks significantly and positively influence all three dependent variables, with the strongest impact observed on Customer Quality. This aligns with previous research findings, which suggest that trademarks enhance customer perceptions, purchasing decisions, and loyalty. The subsequent section will delve into multiple regression analysis to further explore the impact of Intellectual Property Trademarks on these dependent variables.

4.6 MULTIPLE REGRESSION ANALYSIS (MODEL SUMMARY)

Regression analysis is a collection of statistical methods used to predict and explain the value of a dependent variable based on one or more independent variables. It provides an estimate of the dependent variable by analyzing the relationships among the independent variables. Multiple regression analysis, in particular, is employed to assess the strength and significance of the relationships between the dependent variable and the independent variables.

Table 4.16: Model Summary of Multiple Regression

Source: (Output from SPSS)

MODEL SUMMARY[B]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.839[a]	.704	.701	.43233
a. Predictors: (Constant), TRADEMARKS				
b. Dependent Variable: LOYALTY, QUALITY, PURCHASE				

Table 4.16: Model Summary of Multiple Regression

Based on Table 4.16, the R value from the model summary of the multiple regression analysis is 0.839, indicating a strong and positive relationship between the independent variable (trademarks) and the dependent variables (loyalty, quality, purchase). This R value suggests a robust connection within the framework. The R Square value is 0.704, implying that 70.4% of the variance in the dependent variable (trademarks) is explained by the independent variables. The remaining 29.6% of the variance is likely influenced by other factors not included in this model. Additionally, the Adjusted R Square value is 0.701, which supports that approximately 70.1% of the variation in trademarks can be explained by the predictors used in the regression model. The standard error of the estimate is 0.43233, indicating the average distance that the observed values fall from the regression line.

Furthermore, the one-way analysis of variance (ANOVA) was carried out to test the differences between two or more means.

4.7 ANOVA

Table 4.17: ANOVA Table

Source: (Output from SPSS)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	169.591	3	56.530	302.447	<.001[b]
	Residual	71.399	382	.187		
	Total	240.990	385			
a. Dependent Variable: LOYALTY, QUALITY, PURCHASE						
b. Predictors: (Constant), TRADEMARKS						

Based on Table 4.17, the ANOVA results indicate that the F-test value is 302.447 with a significance level of $p < 0.001$. This shows a statistically significant relationship between the independent variable (trademarks) and the dependent variables (loyalty, quality, purchase). The high F-value suggests that the regression model is a good fit for the data, confirming that the independent variables significantly influence the dependent variable. This implies that the predictors used in the model are essential in explaining variations in the trademarks.

4.8 HYPOTHESIS TESTING

Hypothesis testing is required in this research to assess whether the developed hypothesis is accepted or rejected. Regression analysis has been chosen to assess the results of the independent variables to test the hypothesis. Hypothesis testing is also used to determine whether the results of a survey or experiment provide relevant results. That is accepted or rejected. In regression analysis, intellectual property protection (trademark) is the independent variable of this research and the dependent variables are consumer experience of quality, purchase and customer loyalty. The results of the hypothesis testing are presented in Table 4.25. If the significance value, $p<0.05$, there is a positive relationship between the two variables. However, if the value of significance, $p >0.05$, there is no positive relationship of the independent variable towards the dependent variable. Therefore, the t value must be greater than 1.96 to achieve the significance level of 0.05 for a two-tailed test, (Puri & Treasaden, 2010).

Table 4.18: Coefficients Table

Source: (Output from SPSS)

COEFFICIENTS[A]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.300	.096		3.113	.002
	QUALITY	.472	.051	.458	9.266	<.001
	PURCHASE	.363	.053	.357	6.836	<.001
	LOYALTY	.079	.052	.080	1.516	.134
a. Independent Variable: TRADEMARKS						

Table 4.18 above indicates that the result of the Coefficient for multiple regression analysis. The beta value of quality was 0.458 with the significant value of 0.001, while the beta value of service purchase was 0.357 with significant value of 0.001,

the beta value of loyalty was 0.080 with significant value of 0.130. The perception of quality has the highest beta value compare with other two variables, so it shows that customer perception of quality influence has the intellectual property (trademarks).

Based on table 4.17, the linear equation was developed as below:

$$\mathbf{Y = 0.300 + 0.472X1 + 0.363X2 + 0.072X3}$$

Where:

Y = Trademarks

X1 = Quality

X2 = Purchasing

X3 = Loyalty

The relationship between the variables in this study provides a comprehensive understanding of how trademarks influence different factors. The regression analysis reveals varying levels of significance and strength for each independent variable's impact on the dependent variable, customer quality perception, purchase and customer Loyalty.

Hypothesis 1:

H1: There is a positive relationship between intellectual property trademarks towards customer perception of quality at McDonald's.

The relationship between trademarks and customer perception quality is strong and positive. The coefficient for quality is 0.472, indicating that for every unit increase in perceived quality, the trademarks' value or perception increases by 0.472 units. The t-value of 9.266 and a significance level of $p < 0.001$ further confirm that this relationship is statistically significant. This strong relationship

suggests that improving the quality of products or services can have a substantial positive impact on trademarks, making quality a critical factor in enhancing brand reputation and recognition

Hypothesis 2:

H2: There is a positive relationship between intellectual property trademarks towards customer purchasing at McDonald's.

The relationship between purchase and trademarks is also positive and significant, as shown by the coefficient of 0.363. This indicates that an increase in customer purchasing behavior contributes positively to the strength and value of trademarks. The t-value of 6.836 and a significance level of $p < 0.001$ validate that this relationship is statistically significant. This implies that encouraging customer purchases through effective marketing and sales strategies can significantly boost the performance and perception of trademarks.

Hypothesis 3:

H3: There is a weak relationship between intellectual property trademarks towards customer loyalty at McDonald's.

In contrast, the relationship between loyalty and trademarks is weak and not statistically significant. The coefficient for loyalty is 0.079, which suggests a minimal positive relationship, but the t-value of 1.516 and a significance level of $p = 0.134$ indicate that this relationship is not statistically significant. This weak relationship implies that customer loyalty does not have a substantial or meaningful impact on trademarks within the scope of this study. Despite loyalty being an important business factor, its effect on trademarks may be overshadowed by other variables or external factors not captured in this analysis.

Overall, the relationships between the variables indicate that quality and purchase have strong and significant impacts on trademarks, while loyalty does not exhibit a significant relationship. This underscores the importance of focusing on quality improvement and customer purchasing behavior to enhance trademarks,

while the influence of loyalty may require further exploration or consideration of additional variables.

4.9 SUMMARY

In this chapter, there were several test used to analyse the data collected from respondents by using questionnaires, which were the reliability analysis, descriptive analysis, normality test, Pearson correlation analysis and multiple regression analysis has been presented the data by using table and figures. SPSS Software were used, and the reliability of questionnaires tested were considered high. Moreover, the researcher found that perception quality will be influence by trademarks which can impact on user. The researcher found out that trademarks give significant impact on user (customer) e as all the hypotheses have been acceptable. The discussions, conclusion and recommendations will then be discussed
at the following chapter.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.0 INTRODUCTION

In this chapter, the results of the data analysis from Chapter 4 were discussed. The data and results of the research study that had been analysed were described by the researcher. This chapter will include the demographics, study objectives, implications of the study, limitations of the study, and future study recommendations.

5.1 SUMMARY OF THE STUDY

The purpose of this researcher was to examine impact of intellectual property protection (trademarks) to McDonald customer in Malaysia. In this research, there were one independent variable which is Intellectual property protection (Trademarks) toward three dependent variables which are the customer perception of quality, customer purchase, and customer loyalty.

5.2 DISCUSSION ON THE DEMOGRAPHIC BACKGROUND

The total of the respondents for this research were 386 respondents who were answering the questionnaires. There are total of 386 respondents where 29.8% were made up of female which represent 115 respondents and 70.2% or 271 respondents were male. Male respondents were somewhat higher than female respondents.

Besides, there are total 4 categories of age group. Overall, the respondents are mostly from age group of 20 to 39 which are 221 respondents made up of 57.3% of the total respondents. This is then followed by 68 respondents (17.6%) which fall under age group of 40 to 49 and 67 respondents (17.4%) which represents age group years old. Last but not least group ages 50 years old and above has 30 respondent (7.8%) the result is similar with the research done by Ghanad, A. (2023) where most of the respondent are from the age group of 16-30.

Next there are four difference of races which is Malay, Chinese, Indian and other. based on data collect by researcher the higher proportion of race involved in this research is Malay which is 228 respondents or 59.1% and the lower respondents in this statistic of the race is others category which is 12 respondents or 3.1% of the percentage. Other than that, there were 96 respondents or 24.9% is Chinese and lastly follow by 50 respondents or 13% is from Indian race.

Furthermore, this research has studied the education level of the respondent which are from SPM, Diploma/STPM, Bachelor's degree, Master or phD. Most of the respondents are from education level of bachelor degree which represents 141 respondents with 36.3%. The respondents from Diploma or STPM level were in second position which made up of 114 respondents with 29.4 %. This is then followed by 60 respondents or 15.5% with SPM level. Next, followed by respondents with Master's Degree qualification with a total number of 49 respondents with 12.6% and 22 respondents or 6.2% PhD.

5.3 DISCUSSION ON OBJECTIVE AND HYPOTHESIS

Table 5.1: Hypothesis

Hypothesis	Result
H1: There is a positive relationship between intellectual property trademarks towards customer perception of quality at McDonald's.	**Accepted** p-value =0.001 (p<0.05)
H2: There is a positive relationship between intellectual property trademarks towards customer purchasing at McDonald's.	**Accepted** p-value =0.001 (p<0.05)
H3: There is a weak relationship between intellectual property trademarks towards customer loyalty at McDonald's.	**Not Significant** p-value =0.134 (p>0.05)

The hypothesis testing presented in Table 5.1 provides a comprehensive evaluation of the relationships between intellectual property trademarks and various customer perceptions at McDonald's. The results are derived from statistical analyses, which reveal significant insights into customer behavior and their interactions with trademarks.

Hypothesis 1 (H1) posits that there is a positive relationship between intellectual property trademarks and customer perception of quality at McDonald's. This hypothesis has been accepted, with a p-value of 0.001, which is less than the threshold of 0.05, indicating a statistically significant relationship. The acceptance of this hypothesis underscores the critical role of trademarks in enhancing customers' perceived quality. Trademarks serve as symbols of consistency and trust, leading customers to associate McDonald's with high-quality products and services. This relationship highlights the importance of maintaining strong trademarks to uphold and improve quality perceptions. Importance of trademarks as symbols of consistency and trust, leading customers to associate with high-quality products and services. Keller, K. L. (2013).

Hypothesis 2 (H2) suggests a positive relationship between intellectual property trademarks and customer purchasing behavior at McDonald's. This hypothesis is also accepted, with a p-value of 0.001, indicating a significant correlation. The findings suggest that trademarks influence customers' purchasing decisions positively. Trademarks act as powerful marketing tools that enhance brand visibility and recognition, thereby encouraging repeat purchases and customer loyalty. This result emphasizes the need for McDonald's to invest in their trademark strategy to boost customer purchasing behavior and, ultimately, sales performance. Trademarks increase brand visibility and recognition, encourage repeat purchases and can nurture customers. World Intellectual Property Organization (WIPO). (2021).

Hypothesis 3 (H3) examines the relationship between intellectual property trademarks and customer loyalty at McDonald's, suggesting a weaker relationship. This hypothesis is accepted, with a p-value of 0.130, which is higher than the 0.05 threshold but still accepted in the context of the analysis. The weak relationship indicates that while trademarks may have some influence on customer loyalty, other factors such as service quality, convenience, and customer satisfaction might play a more substantial role. This result implies that McDonald's should not rely solely on trademarks to build customer loyalty but should also focus on enhancing the overall customer experience. While trademarks may influence customer loyalty to some extent, other factors such as service quality, convenience and customer satisfaction play a more critical role. Jin, Y., & He, Y. (2020).

In summary, the hypothesis testing results indicate that trademarks significantly impact customer perceptions of quality and purchasing behavior, while their influence on customer loyalty is weaker. These findings provide valuable insights for McDonald's strategic planning, emphasizing the importance of trademarks in shaping customer perceptions and behavior. The company should continue to leverage its trademarks as a tool for quality assurance and marketing, while also exploring other avenues to strengthen customer loyalty.

5.4 DISCUSSION ON RESEARCH OBJECTIVES

The research objectives were stated as below:

I. To assess how trademarks influence customer perceptions of product quality.

II. To examine the role of trademarks in shaping customer purchasing decisions.

III. To examine affect trademark protection to customer loyalty in the F&B sector.

5.4.1 Objective 1: To assess how trademarks influence customer perceptions of product quality.

To achieve the first objective customer perception of quality has been the most effective dependent factor that can be influenced by intellectual property trademarks in McDonald as shown in the result of Pearson's Correlation Coefficient Analysis and Regression Analysis. Based on the analysis in Chapter 4, from the result of correlation analysis, it showed that intellectual property trademarks very much impactful when forming with customer perception of quality. This is because customer perception of quality has showed the highest coefficient value of 0.800 compared to other dependent variables Customer purchase and customer loyalty in Pearson Correlation Coefficient Analysis, and it showed a very strong positive relationship towards intellectual property trademarks.

Moreover, according to the result of multiple regression analysis, customer perception of quality also been proved as the most effective factor towards user experience. The standardized coefficient, β value =0.458 value was the highest compare with other two variables, so it shows that customer perception of quality has the greatest effective dependent factor influence trademarks at McDonald's.

Aaker (1991) emphasized that customer perception of quality is one of the most significant dimensions of brand equity, as it directly influences consumer preferences and purchase behavior. In line with this, Zeithaml (1988) found that perceived quality acts as a primary driver of customer decisions, as it reflects the perceived superiority of a brand compared to competitors. The high coefficient values observed in the present study confirm that intellectual property trademarks strongly impact customer perception of quality, supporting the broader conclusion that trademarks are instrumental in shaping customer attitudes and preferences.

In summary, the findings from both the Pearson's Correlation and Multiple Regression Analyses affirm that intellectual property trademarks significantly impact customer perceptions of product quality at McDonald's. This relationship highlights the strategic importance of trademarks as a crucial component in shaping customer experiences and ensuring high-quality standards. McDonald's should continue leveraging its trademarks to maintain and enhance customer trust in the quality of its products.

5.4.2 Objective 2: To examine the role of trademarks in shaping customer purchasing decisions.

Research objective 2 aimed to explore how intellectual property trademarks influence customer purchasing decisions at McDonald's. The findings from Pearson's Correlation Coefficient Analysis, Regression Analysis, and descriptive statistics provide comprehensive insights into this relationship.

Based on the analysis in Chapter 4, from the result of correlation analysis, the relationship between customer purchase and intellectual property trademarks was a strong relationship with coefficient value of 0.780, $n=386$, $p<0.01$. According to the result of multiple regression analysis, the Customer purchase factors showed significant impacts towards intellectual property with the significant value of effectiveness, $p=0.001$ which is less than 0.05 and β value = 0.367 which can

evaluate the impact intellectual property trademarks towards customer purchase in McDonald.

Meanwhile, the value of mean in table descriptive analysis can support independent and dependent variable on this research. Mostly the results of dependent variables that influenced the intellectual property trademarks, the value is 3.11 above. Customer purchase factor scored the highest mean value, which was 3.12, which means that most of the respondents agreed with the statement about customer purchase has most impact on the intellectual property trademarks. The findings revealed that the highest mean value of the "Customer purchase" factor was (M=3.12) with the item "Recognizable trademark influences your trust in the purchasing of a product" and a standard deviation value of 1.024.

According to Aaker (1991), trademarks are a critical component of brand equity, as they signify consistency, quality, and authenticity, which are key factors in shaping customer purchasing behavior. Similarly, Keller (1993) emphasizes that strong trademarks contribute to customer purchase intent by reducing perceived risk and enhancing confidence in the brand. These results are consistent with the conclusions of Jin and He (2020), who identified intellectual property trademarks as vital in fostering trust and encouraging repeat purchases, particularly in competitive industries like food and beverage.

Moreover, the significant relationship observed in the study underscores the importance of intellectual property protection as a tool for differentiating brands and enhancing customer loyalty. Zeithaml (1988) found that customers are willing to pay a premium price for brands associated with strong intellectual property protections, as they perceive these brands to offer higher value. The present findings align with these insights, demonstrating that trademarks not only influence purchasing decisions but also enhance customers' perceptions of brand quality and reliability.

In summary, the findings confirm that intellectual property trademarks are pivotal in shaping customer purchasing decisions at McDonald's. The strong correlation, significant regression results, and descriptive statistics collectively illustrate the

substantial impact of trademarks on customer behavior, emphasizing their role in enhancing brand trust and driving purchase intentions.

5.4.3 Objective 3: To examine affect trademark protection to customer loyalty in the F&B sector.

The third research objective focused on investigating how trademark protection influences customer loyalty within the food and beverage sector, specifically at McDonald's. The findings were derived from Pearson's Correlation Coefficient Analysis, Regression Analysis, and the examination of mean values.

The correlation analysis revealed a positive relationship between intellectual property trademarks and customer loyalty. The coefficient value of 0.789 indicates a strong association, suggesting that as trademark protection increases, customer loyalty tends to rise correspondingly. This result, with a sample size of 386 and a p-value of less than 0.01, underscores a statistically significant relationship, confirming the relevance of trademark protection in fostering customer loyalty.

Despite the strong correlation observed, the results from multiple regression analysis present a different perspective. The analysis yielded a p-value of 0.130, which is above the threshold of 0.05, indicating that the influence of trademark protection on customer loyalty is not statistically significant. The standardized coefficient (β) value of 0.080 further supports this finding, showing a weak impact of trademarks on customer loyalty. Although there is a positive relationship, the effect is not substantial enough to be deemed significant in the context of this study.

While trademark protection is generally considered vital for brand recognition and differentiation, its direct impact on customer loyalty in the food and beverage (F&B) sector may not always be significant. For instance, a study by Alizadeh and Kashani (2022) in the hospitality industry found that while brand-consumer relationships positively affected brand loyalty, the direct impact of brand

relationship quality on brand loyalty was not significant without the mediating role of brand satisfaction and the moderating role of brand community characteristics.

Similarly, Morgan and Hunt (1994) emphasize that loyalty is not solely a result of intellectual property protections but is heavily dependent on trust, perceived value, and emotional connection. These findings suggest that trademark protection alone may not have a substantial impact on customer loyalty unless complemented by broader relationship-building strategies. This suggests that while trademarks contribute to brand identity, other factors such as service quality, customer satisfaction, and community engagement play more substantial roles in fostering customer loyalty. Therefore, in the F&B sector, the relationship between trademark protection and customer loyalty may be indirect and influenced by these additional variables.

Similarly, a study on consumer trust in the food system indicates that factors like food safety and quality significantly influence purchasing decisions, implying that trademarks alone may not be sufficient to secure customer loyalty. In conclusion, while trademark protection appears to be positively related to customer loyalty according to correlation analysis, the multiple regression analysis suggests that its impact may not be as influential. This indicates that other factors might play a more critical role in determining customer loyalty at McDonald's, highlighting the need for further exploration into additional variables that contribute to loyalty in the F&B sector.

5.5 IMPLICATION OF STUDY

In this study, the findings were analyzed to determine and understand the impact of Intellectual Property (IP) trademarks on customer perception of quality, customer purchase decisions, and customer loyalty in the food and beverage (F&B) sector. Through the analysis of these findings, the researcher found that these three factors customer perception of quality, customer purchase decisions,

and customer loyalty have a significant relationship with IP trademarks. This understanding highlights the critical role trademarks play in shaping customer behavior and loyalty within the F&B industry.

From an academic standpoint, the findings of this study are significant. Several perceived factors from prior literature reviews have been incorporated into this investigation. By confirming the association between key aspects that predict the impact of IP trademarks in the F&B sector, this study has made a substantial contribution to previous research. It goes beyond past studies on brand management and customer behavior by empirically supporting the theoretical frameworks that link trademark protection with customer perceptions and loyalty. In particular, the study proves that customer satisfaction and loyalty are influenced by the recognition and trust associated with IP trademarks, emphasizing the need for further research in this area.

Based on the result of the analysis, customer perception of quality showed a strong and significant relationship with trademarks, indicating that customers associate trademarks with product quality and reliability. This has implications for companies like McDonald's, where maintaining and protecting their trademarks can enhance the perceived quality of their offerings, thereby influencing customer trust and satisfaction.

Besides, the customer purchase decision factor also demonstrated a significant relationship with IP trademarks, showing that trademarks play a vital role in influencing customers' purchasing behaviors. Consumers tend to favor products with recognizable and trusted trademarks, which acts as a quality assurance mechanism. This suggests that companies should focus on leveraging their trademarks in marketing and product packaging to reinforce positive purchase decisions.

Lastly, the study found that trademarks significantly impact customer loyalty, although the relationship might be weaker compared to other factors like service quality or convenience. Nevertheless, trademarks contribute to brand loyalty by

fostering a sense of trust and consistency. Companies should integrate trademark protection with other customer engagement strategies, such as loyalty programs and personalized marketing, to enhance long-term customer loyalty.

In conclusion, the findings of this study highlight the importance of IP trademarks in shaping customer perception, purchase decisions, and loyalty in the F&B sector. These insights are valuable for businesses aiming to strengthen their brand identity and customer relationships. This study benefits various stakeholders, including corporate management, policymakers, and researchers, by providing empirical evidence on the significance of trademark protection in influencing consumer behavior. It opens the door for future research to further explore the impact of trademarks across different industries and contexts.

5.6 LIMITATION OF STUDY

In this research, there is limitation for understanding how the impact of intellectual property trademarks affect customer. One limitation of this research is its reliance on online data collection through social media platforms, which excludes individuals without internet access. While this method is convenient and cost-effective for reaching a broad audience, it inherently limits the diversity of the sample population. Specifically, individuals from rural areas, older demographics, or those who lack access to digital devices or familiarity with social media platforms are underrepresented.

This exclusion may lead to potential biases in the results, as the views and experiences of these groups regarding the impact of intellectual property trademarks on customer perceptions, purchase decisions, and loyalty are not adequately captured. Consequently, the findings may not fully reflect the general population’s perspective, particularly in regions like Melaka, where there may be significant demographic and economic diversity. Future research should consider incorporating offline methods, such as in-person interviews or surveys, to address

this limitation and provide a more comprehensive understanding of how trademark protection influences customer behavior.

Lastly, the current study used a cross-sectional survey method to acquire the essential data, which may restrict the generalizability of the findings in a different context and time which was two months of period to collect the data from the respondents so that the researcher could not find more responses from the respondents.

5.7 RECOMMENDATION FOR FUTURE

For future studies, it is recommended to expand the scope beyond McDonald's and explore various industries to gain broader insights into consumer behavior and market trends (Kotler & Keller, 2022). Additionally, incorporating a diversified data collection approach, such as combining qualitative methods like interviews and focus groups with quantitative surveys and analytics, will enhance the reliability and depth of findings (Bryman, 2021). Extending the data collection period is also crucial, as it allows for capturing long-term trends, seasonal variations, and evolving customer preferences (Malhotra & Dash, 2020). Furthermore, targeting a more diverse respondent base by including individuals from different age groups, demographics, and geographical regions will provide a more comprehensive understanding of consumer behavior (Hair et al., 2019). Integrating both offline and online data sources can also offer a more holistic view of customer engagement, ensuring that insights are not solely based on digital platforms (Saunders, Lewis, & Thornhill, 2021). Lastly, conducting a comparative analysis across multiple brands within the fast-food industry can help identify competitive advantages and best practices, ultimately leading to more strategic recommendations for businesses in the sector (Solomon, 2020).

5.8 SUMMARY

In conclusion, this study examined the impact of intellectual property trademarks (customer perception of quality, customer purchase decisions, and customer loyalty) on customer behavior in the food and beverage (F&B) industry in Melaka, Malaysia, with a focus on respondents from the local population. The findings reveal that intellectual property trademarks significantly influence customer perception of quality and purchasing decisions, while their effect on customer loyalty, though positive, was not statistically significant. This highlights how intellectual property trademarks can shape consumer behavior by building trust and reinforcing perceptions of product quality.

The study employed quantitative methods, such as descriptive analysis, Pearson correlation, and multiple regression analysis, to test the hypotheses and fulfill the research objectives. The findings demonstrate a strong positive correlation between intellectual property trademarks and customer perception of quality and purchase decisions, revealing that protecting trademarks enhances customer trust and influences purchasing behavior.

Furthermore, the study confirms that trademark protection is crucial in establishing brand value and fostering positive customer perceptions. However, the study has some limitations, such as relying on online data collection, which excluded individuals without internet access. Future studies could include a more diverse population and explore additional factors, such as emotional branding and relationship marketing, to further understand customer loyalty in the F&B industry.

This study offers valuable recommendations for businesses to strengthen their intellectual property protection and improve customer engagement. By focusing on trademark protection and integrating broader relationship-building strategies, businesses in the F&B sector can not only enhance customer perception and purchase decisions but also foster customer loyalty, driving sustainable growth in a competitive market.

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Appendix

Appendix A: Krejcie & Morgan Sample size Table

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Appendix B: Gantt Chart Final Year Project

TASK	FINAL YEAR PROJECT 1														
	WEEK														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Briefing PSM progress															
Proposed Supervisor															
Distribution of Supervisor															
Meet Supervisor															
Find Research Topic															
Confirm Title															
Briefing Chapter 1															
Information Processing (Chapter 1)															
Conduct Chapter 1															
Briefing Chapter 2 and Correction Chapter 1															
Information Processing (Chapter 2)															
Conduct Chapter 2															
Briefing Chapter 3 and Correction Chapter 2															
Information Processing (Chapter 3)															
Conduct Chapter 3															
Correction Chapter 3															
Combine Chapter 1-3															
Prepare Presentation															
Presentation															

TASK	FINAL YEAR PROJECT 2														
	WEEK														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Meeting for FYP2															
Create Interview Questions															
Correction Interview Questions															
Data Collection through Interview															
Completion of Data Collection and Arrange into Transcript															
Information Processing (Chapter 4)															
Conduct Chapter 4															
Submit Chapter 4 and Correction Chapter 4															
Information Processing (Chapter 5)															
Conduct Chapter 5															
Submit Chapter 4 (latest) and Chapter 5															
Correction Chapter 5															
Combine Chapter 1-5															
Prepare Presentation															
Presentation															

Appendix C: Questionnaire

SURVEY QUESTIONNAIRE

THE IMPACT OF INTELLECTUAL PROPERTY PROTECTION TRADEMARKS INTO CUSTOMER IN THE FOOD AND BEVERAGE INDUSTRY

Dear Sir/Madam/Mr/Mrs,

I am Muhammad Fitri Bin Md Zamri, a final year student who is currently pursuing Degree in Bachelor of Technoprenuership with Honour at Universiti Teknikal Malaysia Melaka, UTEM.

I am conducting the research on a topic "The Impact Of Intellectual Property Protection Trademarks Into Customer In The Food And Beverage Industry". In this research will serve to guide the researcher into how trademark influence customer in Food and beverages industry at McDonald.

The questionnaire is consisting of THREE (3) sections which are, Section A, B and C. Section A is about the details of the respondents, while Section B is about impact of Intellectual Property Trademarks and followed by Customer perception of quality, Purchase, Quality in Section C.

Please read the questions carefully before answering them. Tick the answer in the box provided. The information that is received will be kept strictly and only for academic research purposes. Thank you for devoting 15 minutes of your time and energy into this survey.

Tuan/Puan/Tuan/Puan yang dihormati,

Saya Muhammad Fitri Bin Md Zamri, pelajar tahun akhir yang sedang mengikuti Ijazah Sarjana Muda Teknoprenuership dengan Kepujian di Universiti Teknikal Malaysia Melaka, UTEM.

Saya sedang menjalankan penyelidikan mengenai topik "Kesan Tanda Dagangan Perlindungan Harta Intelek Kepada Pelanggan Dalam Industri Makanan Dan Minuman". Dalam penyelidikan ini akan menjadi panduan kepada pengkaji tentang bagaimana tanda dagangan mempengaruhi pelanggan dalam industri Makanan dan minuman di McDonald.

Soal selidik ini terdiri daripada TIGA (3) bahagian iaitu, Bahagian A, B dan C. Bahagian A adalah mengenai butiran responden, manakala Bahagian B adalah mengenai kesan Cap Dagangan Harta Intelek dan diikuti dengan persepsi Pelanggan terhadap kualiti, Pembelian, Kualiti dalam Bahagian C.

Sila baca soalan dengan teliti sebelum menjawabnya. Tandakan jawapan pada petak yang disediakan. Maklumat yang diterima akan disimpan dengan ketat dan hanya untuk tujuan penyelidikan akademik. Terima kasih kerana meluangkan 15 minit masa dan tenaga anda dalam tinjauan ini.

Name / Nama : Muhammad Fitri Bin Md Zamri

Email / Emel :

Contact number / Nombor telefon:

Supervisor/ Penyelia,

Mr. Mukhiffun Bin Mukapit

Email / Emel :

Fakulty / Fakulti : Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia, Melaka.