# A Study on the Awareness of Wi-Fi Analytics Among Customers in Tracking Their Behavior

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#### **ABSTRACT**

In today's increasingly digitized world, businesses and service providers are continually seeking innovative ways to understand and engage with their customers. One such method is the utilization of Wi-Fi analytics, which enables tracking and analysis of customer behavior within physical spaces. This study aims to investigate the level of awareness among customersregarding Wi-Fi analytics and its potential impact on their privacy and overall customer experience. The research employs a mixed-methods approach, combining surveys and interviews, to gather data from a diverse sample of customers in various public spaces, such as retail stores, restaurants, and hotels. Findings reveal that a substantial portion of the customer population is unaware of the use of Wi-Fi analytics to track their behavior. Moreover, the study delves into the factors that influence customer awareness, including demographic characteristics, frequency of visitation to Wi-Fi-enabled locations, and prior exposure to information on the subject. This study also explores customer attitudes toward the privacy implications of Wi-Fi analytics, shedding light on concerns and preferences, as data privacy becomes a growing concern in the digital age.

### INTRODUCTION

In the digital age, the collection and analysis of data have become essential tools for businesses and service providers seeking to understand and engage with their customers effectively. Wi-Fi analytics is a technology that has gained prominence as a means to gather insights into customer behavior within physical spaces. It offers the potential to personalize experiences, optimize services, and improve customer satisfaction. However, this powerful tool also raises important questions about privacy and consent.

The objective of this study is to examine the awareness of Wi-Fi analytics among customers and to investigate how it impacts their perceptions and behaviors. While Wi-Fi analytics holds great promise for businesses, it also carries inherent challenges related to data privacy and ethics. To address these issues, it is crucial to understand the extent to which customers are aware of this technology and its implications. Wi-Fi analytics involves the collection of data from Wi-Fi-enabled devices, such as smartphones and tablets, to track customer movements, preferences, and behaviors within specific physical locations, like retail stores, restaurants, and hotels. By leveraging this data, businesses can make informed decisions regarding layout, product placement, and promotional activities. Furthermore, they can provide personalized offers, recommendations, and services tailored to individual customer preferences, thereby enhancing the overall customer experience.

However, the use of Wi-Fi analytics also raises concerns about data privacy and transparency. Customers may be unaware of the extent to which their data is being collected and how it is used. This lack of awareness can lead to concerns about privacy violations and intrusive surveillance.

## **OBJECTIVES OF THE STUDY**

- 1. To make an analytical study on the awareness of Wi-Fi analytics among customers.
- 2. To find out how it invades the privacy of customers.
- 3. To find out how customers are targeted based on Wi-Fi analytics.
- 4. To find out how it has an effect on purchasing intensions of customers.

### REVIEW OF LITERATURE

According to the study conducted by **Jose prabhu joseph John** in the year 2020 **on** the topic"**A study and analysis of consumer behavior and factor influencing in marketing**" is about studying the consumer behavior so that

marketers can recognize what influences consumers purchasing choices. Researching consumer actions also aides' marketers choose how to provide their items in a way that produces optimum effect on consumers.

According to the research conducted by **Mihalj bakator and Dragica Ivin** in the year2016 on the topic "**Analysis of consumer behavior and marketing strategy improvement**" is about understanding consumer behavior for business improvement. New products, new beliefs and overall society psychology require thorough examination of market segments and consumer demands. Customer behavior is analyzed so that organizations can realize a strong and effective marketing strategy which will ensures sales and profit.

According to the research conducted by Caihua zhang snd Tongxin Tan in the year 2020 on the topic "The Impact of Big Data Analysis on Consumer Behavior" says that with the help of AISAS model, which is used to analyse consumer behaviour in the network economy, and in combination with the influence mechanism of big data analysis on consumer behaviour decision-making process, they have constructed a consumer behaviour model under the background of big data and tested it by means of questionnaire survey. The results show that the factors that affect consumer decision-making include external factors and internal perception.

According to the research conducted by **Mircea fuciu and luigi dumitrescu** in the year 2015, on the topic "Understanding the online consumer behavior and the usage of internet as a business environment" Says that the research was about tracking consumer behavior in online store. The development of information and communication technologies and of the internet, the objective is to find out the factors which influence the consumer behavior in general and the online consumer behavior.

According to the research conducted by **Russell Belk** in the year 1975 on the topic "**Situation variables and consumer behavior**", suggested the explicit recognition of situational variables can substantially enhance the ability to explain and understand the consumer behavioral acts. This study also distinguishes between the situational variables and non-situational variables which determinates the consumer behavior.

According to the research was conducted by Harikrishna Rai and Kishore Jonna in the year 2011 on the topic "Video analytics solution for tracking customer locations in retail shopping malls" suggested a computer vision-based system for tracking customer locations-based services. It provides an efficient approach for cart recognition that consists of two stages: cart detection and cart recognition, the objective of this study to track customer behavior through video analytics. the system takes live video feed as input from the cameras mounted on the aisles of the shopping mall and processes frames in real-time.

According to the study conducted by **Bersant Deva and Peter Ruppel** in the year 2015 on the topic "**Location Analytics as a Service: Providing Insights for Heterogeneous Spatiotemporal Data**", is about the location analytics which plays a major role in providing insights. Of customers. The increasing availability of positioning data from mobile devices facilitates new opportunities for location analytics systems, which provide insights into the movement behavior of targets across various localities. Similar to web analytics systems, positioning data can be utilized to count, for example, returning visitors in venues, calculate visit frequencies for certain time intervals, or to identify typical movement paths for different groups of visitors inside and outside buildings.

According to the study conducted by Ismail Haritaoglu and Myron D Flicker in the year 2013 on the topic "video CRM: understanding customer behaviors in stores" describes two real time computer vision system created to detect and track people in stores to obtain insights of customer behavior while shopping. Here, shopping groups are identified by analysing the inter body distances coupled with cashiers' activities to detect checkout transactions start and end times and also other system was initiated to track people, their body posture and parts to understand customer interactions.

According to the study conducted by **K. Yada in** the year 2009 on the topic "String analysis techniques for shopping path in a supermarket" says that the sensor network technology developed in recent years has made it possible to accurately track the in-store behavior of customers which was previously indeterminable.in- store behavior of customers obtained by using technologies.

According to the study conducted by Sang Jeong Lee, Chulhong Min, Junehwa Song in the year 2013 on the topic "Understanding customer malling behavior in an urban shopping mall using smartphones" presents a novel customer malling behavior modelling framework for an urban shopping mall. As an automated computing framework using smartphones, it is designed to provide comprehensive understanding of customer behavior., customer trace extraction, and behavior model analysis. We extract customer traces from a collection of 701-hour sensor data from 195 in-situ customers who installed our logging application at Android Market.

According to the research conducted by **Javier Andion**, **Jose M Navarro** on 2018 on the topic "**Smart behavioural analytics over a low cost IOT Wi-Fi tracking real deployment**" says about analysing people flow monitoring and presenting pros and cons. The main goal of this paper is to prove that a minimal deployment of sensors, combined with the adequate analysis and visualization algorithms, can render useful results.

According to the research conducted by **Georgios Pipelidis**, **Nikolaos Tsiamitros**, **Malte Kessner**, **Christian Prehofer** in the year 2019 on the topic "**Human movement analytics Via Wi-Fi probes**" is about enabling spatial human analytics using Wi-Fi probes. First, they set up beacons in the area to collect probe requests and relate themto a location, and combined Wi-Fi probe are used to generate radio map and enable tracking of devices.

According to the research conducted by Yunze Zeng, Parth H Pathak, Prasant Mohapatra on 2018 on the topic "Analysing Shopper's behavior through Wi-Fi signals" is about Understanding shopper's behavior through Physical analytics can provide crucial insights to business owners in terms of effectiveness of promotions and arrangements of products. The study is about Wi-Fi based sensing of shopper's behavior in retail store.

According to the study done by **Utku Gunay Acer**, **Geert Vanderhulst**, **Afra Masshadi**, **Aidan Boran**, **Claudio Forlivesi** in the year 2016 on the topic "**Capturing personal and crowd behavior with Wi-Fi analytics**" says that they provide solution for analysing the crowd at conferences where people have networking opportunities. They have created a solution built on top of ubiquitous Wi-Fi signals that is able to create a memory of human trajectories and touch points.

According to the study conducted by **Mohammed Alaggan**, **Mathieu Cunche**, in the year 2018, on the topic "Privacy preserving Wi-Fi Analytics" says that they propose a privacy-preserving solution for collecting aggregate mobility patterns while satisfying the strong guarantee of \(\varepsilon\)-differential privacy as it became easier to track the movements of individuals through the radio signals broadcasted by their devices.

According to the research conducted by **Levent Demir**, **Mathieu Cunche**, **Cédric Lauradoux** in 2014 on the topic "**Analysing the privacy policies of Wi-Fi trackers**" says that they analyse the privacy policies used by the current tracking companies then show the pitfalls of hash-based anonymization. More particularly they demonstrate that the hash-based anonymization of MAC address used in many Wi-Fi tracking systems can be easily defeated using of-the-shelf software.

According to the study done by **Rachelle Bentajado Villalon** in 2016 on the topic " **Data mining, inference and predictive analytics for the built environment with images, text and Wi-Fi data**" is about how the Architecture, Engineering, and Construction (AEC) industry can exploit crowdsourced and non-traditional datasets, so they have developed a complete software pipeline for data mining, analysing, and visualizing large volumes of crowdsourced unstructured content about MIT and otherlocations from images, campus Wi-Fi access points.

According to the research conducted by **Shahrzad Jalali** in 2019, on the topic "**Estimating Bus Passengers origin destination of travel Route Using Data Analytics on Wi-Fi and Bluetooth Signals**" Says about Estimating bus passengers' O-D using Wi-Fi and Bluetooth signals detected from their mobile devices is the primaryobjective of this project and to find out how the data collected can be useful for public transport companies.

According to research conducted by **Kasthuri Jayarajah**, **Zaman Lantra**, **Archan Misra** in 2016 on the topic "Fusing Wi-Fi and video sensing for accurate group detection in indoor spaces" says that understanding one's group context in indoor spaces is useful for many reasons. They propose a multi-modal group detection system that fuses two independent modes: video and Wi-Fi, for detecting groups with low latency and high accuracy.

According to research conducted by Mozhdeh Ariannezhad, Sami Jullien, Pim Nauts, Min Fang, Sebastian Schelter, Maarten de Rijke on 2014 on the topic "Understanding Multi channel customer behavior in retail" says that they provide the first insights into multi-channel customer behavior in retail based on a large sample of 2.8 million transactions originating from 300,000 customers of a food retailer in Europe. The analysis reveals significant differences in customer behavior across onlineand offline channels.

#### DATA COLLECTION METHODS

#### PRIMARY DATA

Primary data may be a style of data that's collected by researchers directly from main sources through interviews, surveys, experiments etc. Primary data are usually collected from the source-where the information originally originates from and are thought to be the simplest quiet data in research. Primary data collection is kind of expensive and time consuming compared to secondary data collection. For this study, primary data is collected through questionnaires. The questionnaire was prepared and collected data by both google form and given manually.60 responses were collected through Physical form includes, and 40 responses were collected through google form.

#### SECONDARY DATA

Secondary data is a second-hand data that is already collected and recorded by some researchers for their purpose, and not for the current research problem. It is accessible in the form of data collected from different sources such as government publications, censuses, internal records of the organization, books, journal articles, websites and reports, etc. This method of gathering data is affordable, readily available, and saves cost and time. However, the one disadvantage is that the information assembled is for some other purpose and may not meet the present research purpose or may not be accurate.

## LIMITATIONS OF STUDY:

- 1. The study only focused on customer awareness of Wi-Fi analytics and did not explore other factors that may influence customer's attitudes and behavior towards Wi-Fi networks.
- 2. Lack of awareness of Wi-Fi analytics among customers, which made this study quitedifficult to carry out.
- 3. This study took quite longer time to collect responses as some respondents required more clarification regarding Wi-Fi analytics.
- 4. This study is really challenging to interpret the data and draw conclusions.

## **DATA ANALYSIS**

Both quantitative and qualitative approaches to analysis should be used. For the purpose of assessing survey and clinical evaluation of data, statistical methods should be used. Utilized a questionnaire in order to get qualitative questionnaire data.

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#### **DEMOGRAPHIC FACTORS OF THE RESPONSES:**

FREQUENCY TA	BLE	Frequency	Percent
4	Below 18	2	6.5
	18-20	8	25.8
Age	21-25	17	54.9
	26-30	2	6.4
	Above 30	2	6.4
	Total	31	100
	Male	14	45.1
Gender	Female	17	54.9
	Total	31	100
Education	Under graduate	15	48.4
	Post graduate	16	51.6

	Total	31	100
	Married	7	22.6
Marital status	Un Married	24	77.4
	Total	31	100
	Student	21	67.7
Current status	Employed	6	19.4
	Self employed	4	12.9
	Total	31	100

The frequency table presented illustrates data pertaining to various demographic characteristics (age, gender, educational level, occupation, and marital status), with counts and percentages within each category.

A distribution of Ages: From the above table, it has been identified that 6.5% of the respondents belong to the age group of under 18 years, 25.8% of the respondents belong to the age group of 18-20 years, 54.9% of the respondents belong to the age group of 21- 25 years, 6.4% of the respondents belong to the age group of 26-30 years, 2% of the respondents are belong to the age group of 30 and above. The above table shows that majority of the respondents belongs to the age group of 21- 25 years.

Gender distribution: From the above table, it has been identified that 45.1% of the respondents are male population and the female population sums up to 54.9%, From the above table it shows that majority of the respondents are belongs to female population.

The Respondent's Educational level is as follows: 51.6% of the respondents have apostgraduate degree, while 48.4% are enrolled as undergraduates. Postgraduate and undergraduate students are represented in the research, with a somewhat greater proportion of postgraduate participation.

**Marital Status:** The proportion of unmarried individuals is at 77.4%, while the proportion of married participants is 22.6%. Given that the majority of participants are unmarried, this indicates that the experiences of unmarried persons are the primary focus of the research.

**Current status of the respondent's:** 67.7% of the participants are enrolled in educationalinstitutions, while 19.4% are employed. And the participant who are self-employed is around 12.9, Students comprise the bulk of the participants.

In general, the research seems to be preoccupied with the viewpoints and experiences of youthful, unmarried pupils, among whom women are overrepresented. These demographic considerations must be taken into account when analyzing the data and developing inferences about awareness of Wi-Fi analytics among consumers in tracking their behavior. Additionally, a more varied sample would have enhanced the generalizability of the results and contributed to the overall quality of the research.

## **ANALYSIS**

## 1: Classification of respondents based on usage of public Wi-Fi.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	6	19.3
2	Agree	6	19.3
3	Neither Agree nor Disagree	5	16.6
4	Disagree	8	25.6
4	Strongly Disagree	6	19.2
	TOTAL	31	100

## **Interpretation**:

From the above table it shows that 44.85 percent of the respondents have not used Wi-Fi at public places, 16.6 percent of the respondent's percent of the participants adopted an impartial position and 38.6 percent of the respondent have used Wi-Fi in public places. It is clearly known that the majority of the population have not used free Wi-Fi in public places. This could include various public places such as cafes, libraries, airports and much more that offers free Wi-Fi services to the general public. These findings indicate that respondents' attitudes toward public Wi-Fi usage vary, indicating potential concerns that warrant further investigation.

### 2. Classification of respondents based on their awareness level on "come in free Wi-Fi" board.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	9	29
2	Agree	15	48.4
3	Neither Agree nor Disagree	4	13
4	Disagree	3	9.6
	TOTAL	31	100

#### **Interpretation**:

The survey sought to assess respondents' knowledge of a "come in free Wi-Fi" sign, categorizing their responses into various levels of agreement. Among the 31 respondents, 29 percent strongly agree, and 48.4 percent agree, that they are aware of the "come in for free Wi-Fi" sign.13 percent do not agree or disagree.9.6 percent disagree with board awareness. Overall, a sizable majority 77.4 percent acknowledges awareness, while asmaller proportion 9.6 percent disagrees. This indicates that the communication strategy regarding the free Wi-Fi service was successful for the majority of respondents. Further research could provide insights into improving the strategy or addressing the needs of theminority who are less aware.

## 3. Classfication of respondents who the retailers think they can retain them by givingfree Wi-Fi

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	17	55
2	Agree	9	29
3	Neither Agree nor Disagree	3	9.6
4	Disagree	2	6.4
	TOTAL	31	100

## **Interpretation:**

The study sought to ascertain retailers' perceptions of the effectiveness of offering free Wi-Fi in retaining customers. Among the 31 retailers, 55 percent strongly agree, and 29 percentagree that offering free Wi-Fi can help them retain customers. 9.6 percent do not agree or disagree. 6.4 percent of respondents disagree that free Wi-Fi helps with customer retention. Overall, a large majority of retailers 84 percent believe that free Wi-Fi has a positive impacton customer retention, while a smaller percentage has reservations or disagrees. Further investigation could shed light on the specific strategies or reasons for retailers' uncertainty or disagreement.

## 4. Classification of respondents who thinks providing free Wi-Fi would provide the retailer competitive advantage.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	13	42
2	Agree	9	29.5

3	Neither Agree nor Disagree	7	22
4	Strongly Disagree	2	6.5
	TOTAL	31	100

#### **Interpretation:**

The survey sought to ascertain respondents' thoughts on whether offering free Wi-Fi would provide retailers with a competitive advantage. Among the 31 respondents, free Wi-Fi would provide a competitive advantage, according to 42% who strongly agree and 29.5 percent who agree. 22 percent are neither agreeing nor disagreeing.6.5 percent strongly

disagree that free Wi-Fi provides a competitive advantage. Overall, a large majority of respondents 71.5 percent believe that free Wi-Fi can provide retailers with a competitive advantage. A sizable proportion is still unsure or neutral, while a smaller proportion strongly disagrees. Further investigation could reveal the reasons for these disparities in viewpoints.

## 5. Respondents opinion on collecting the data is legal and ethical.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	7	22
2	Agree	5	16
3	Neither Agree nor Disagree	3	10
4	Disagree	6	20
5	Strongly Disagree	10	32
AN I	TOTAL	31	100

## **Interpretation:**

The survey sought respondents' perspectives on the legality and ethics of data collection. Among the 31 respondents, Data collection is legal and ethical, according to 22 percent who strongly agree and 16 percent who agree.10 percent do not agree or disagree.20 percent disagree with the legality and ethics of data collection, while 32 percent strongly disagree. The findings show a significant divide in opinions, with a significant portion expressing concerns about the legality and ethics of data collection. Understanding the motivations for these disparate viewpoints could provide valuable insights into expectations and concerns about data privacy and ethical considerations.

## 6. Classification of respondents who believes data which is acquired is a basis for target audience.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	9	29
2	Agree	10	32
3	Neither Agree nor Disagree	5	16.4
4	Disagree	4	12.6
5	Strongly Disagree	3	10
	TOTAL	31	100

The study sought respondent's opinions on whether acquired data can be used to target a specific audience. Among the 31 respondents,29 percent strongly agree, and 32 percent agree that the collected data can be used to target a specific audience.16.4 percent do not agree or disagree.12.6 percent disagree, with 10 percent strongly disagreeing,

that acquireddata is used to target a specific audience. Overall, the majority of respondents 61 percent believe that acquired data is relevant for audience targeting, with a significant portion expressing doubt. A smaller percentage disagrees, with some strongly disagreeing. Furtherinvestigation could shed light on the reasons for these disparate viewpoints.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	1	3.2
2	Agree	4	13
3	Neither Agree nor Disagree	3	9.6
4	Disagree	6	19.4
5	Strongly Disagree	17	54.8
	TOTAL	31	100

### **Interpretation**:

The study sought to ascertain respondents' concerns about privacy issues related to Wi-Fi analytics. Among the 31 respondents, 54.8 percent strongly disagree that Wi-Fi analytics pose significant privacy risks. Concerns about privacy with Wi-Fi analytics are raised by 19.4 percent of respondents, while 9.6 percent are undecided. Only 3.2 percent strongly agree and 13 percent agree that there are major privacy concerns. Overall, the majority of respondents do not consider Wi-Fi analytics to be a major privacy concern, while a minority agrees or is unsure. Further investigation may yield insights into the factors influencing these disparate viewpoints.

### 8. Responde of respondents on misuse of their collected data.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	15	48.6
2	Agree	11	35.4
3	Neither Agree nor Disagree	2	6.4
4	Disagree	2	6.4
5	Strongly Disagree	1	3.2
,	TOTAL	31	100

## **Interpretation:**

The Study sought to ascertain respondents concerns about the potential misuse of their personal information. Among the 31 respondents, 84 percent are concerned about the potential misuse of their collected data, with 48.6 percent strongly agreeing and 35.4 percent agreeing.6.4% do not agree or disagree, while the same proportion 6.4 percent disagrees with the idea of potential misuse.3.2 percent strongly disagrees with the idea of potential misusepropriation. The findings show that a significant majority of respondents are concerned about the potential misuse of their data, while a minority are more optimistic or neutral. Further investigation could reveal the factors influencing these disparate points of view.

## 9. Classification of respondents who are concerned about their privacy and security of the data while using public Wi-Fi.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	19	48.6
2	Agree	10	35.4

3	Neither Agree nor Disagree	2	6.4
	TOTAL	31	100

#### **Interpretation:**

The survey sought to ascertain respondents' privacy and data security concerns when using public Wi-Fi. Among the 31 respondents, 84 percent are concerned about their privacy and data security while using public Wi-Fi, with 48.6 percent strongly agreeing and 35.4 percentagreeing. A small percentage 6.4 percent does not agree or disagree. The findings show that respondents are concerned about the privacy and security of their data when using public Wi-Fi. Understanding the specific concerns underlying these fears could help guide efforts to address and improve public Wi-Fi security measures.

## 10. Classification of respondents who uses the Wi-Fi provided by retailers to make the payments at their establishment.

SL.NO	RESPONSES	FREQUENCY	PERCENT
1	Strongly Agree	5	16.2
2	Agree	14	45.2
3	Neither Agree nor Disagree	3	9.6
4	Disagree	5	16.1
5	Strongly Disagree	4	12.9
A. J.	TOTAL	31	100

## **Interpretation:**

The survey sought to ascertain respondents' attitudes toward using Wi-Fi provided by retailers to make payments at their establishments. Among the 31 respondents, 61.4 percent either strongly agree or agree that they make payments using retailer-provided Wi-Fi.9.6 percent do not agree or disagree.29 percent either disagree or strongly disagree withthe idea of paying with retailer-provided Wi-Fi. The findings show that a sizable proportion of respondents use retailer-provided Wi-Fi for payment, but there are differences in responses, with some expressing uncertainty or disagreement. Additional research could shed light on the factors influencing these behaviors.

#### **FINDING:**

- 1. Majority of the respondents belong to the age group of 21-25 years and majority are females, indicating that this group is the most likely to use free Wi-Fi in public places.
- 2. Retailers use Wi-Fi analytics to track customer behavior, and this is a known factamong the respondents. They also agree that tracking customer behavior benefits retailers in determining customer needs and preferences, which could lead to more targeted advertisements and marketing messages.
- 3. Customers who were aware of the use of Wi-Fi analytics were more likely to keeptheir connection secure in order to safeguard their privacy. Thus highlights the importance of education and awareness in promoting responsible use of publicWi-Fi networks.
- 4. Respondents expressed concerns about privacy issues related to disclosure of information without concern, and access to unauthorized links leading to leakage of data. Many were aware that their data could be vulnerable to hackers and other malicious actors. They also strongly agree that location data is personal and should not be shared.
- 5. Respondents are targeted occasionally with personalized messages and promotions, and there is evidence to suggest that personalized messages highlyinfluence respondent's purchasing behavior.
- 6. Respondents have noticed the boards put up in retail outlets to attract customers, indicating that retailers are using Wi-Fi as a marketing tool to attractand retain customers.
- 7. Respondents are aware of video tapping used to track customer behavior, indicating a need for transparency in the use of surveillance technology in retailenvironment.
- 8. The majority of customers surveyed were aware that their location data was being tracked through their use of Wi-Fi networks, however many were not aware that this data could be used to create targeted

advertisements and marketing messages.

9. Customers who are targeted with personalized messages and promotions were more likely to be influenced in their purchasing behavior. This highlights the potential benefits of targeted marketing, as well as the need for responsible useof customer data.

### SUGGESTIONS:

- 1. Customers should be encouraged to be cautious when clicking on links and sharing location data, especially on public Wi-Fi networks.
- 2. Customers who are aware of Wi-Fi analytics are more likely to be concerned about their privacy and data security. Therefore, retailers should provide clear and transparent information about how customer data is collected, stored and used. This can help to alleviate customer concerns and improve trust.
- 3. Customers should make sure to keep their connection secure by using any other secure connection options
- 4. Customers need to avoid accessing sensitive information or making online purchases when connected to public Wi-Fi networks. Instead, they can wait until they are connected to a secure network.
- 5. Customers should make sure if they notice any suspicious activity report them to the relevant authorities or business owners.
- 6. Customers to make informed decisions about data and Customers need to stay up to date with the latest data privacy news and developments. This can help privacy.
- 7. Retailers offering free Wi-Fi should consider implementing better ad filtering orreducing the number of ads to enhance the user experience. Users should be educated on how to keep their connection secure on open networks to safeguard their privacy.
- 8. Retailers should consider offering personalized promotions and messages to increase customer engagement and loyalty, but they should also be transparent about their use of customer data. Retailers should take measures to protect customer data and ensure that it is not shared without their consent.
- 9. Customers should be cautious when giving out personal information such as email address, phone number, and other personal data customers should aware of Device settings to see what data is being shared with Wi-Fi networks
- 10. Customer should use strong and unique passwords for all online accountsincluding Wi- Fi networks. This can help to prevent unauthorized access to customer data.

## **CONCLUSION:**

The findings of this study suggest that while Wi-Fi is a popular feature among customers in public areas, awareness of Wi-Fi analytics among customers in public places, awareness of Wi-Fi analytics and its use in tracking customer behavior is relatively low. There is a need for retailers to be transparent about their use of Wi-Fi analytics and obtain customer consent before collecting and using their data. Customers who are aware of Wi-Fi analytics express concerns related to privacy and data collection, and retailers should take measures to address these concerns. While a majority of customers use free Wi-Fi in public places, the awareness of Wi-Fi - Analytics and its use in tracking customer behavior is relatively low. Customers who are aware of Wi-Fi analytics express concerns related to privacy and data collection, particularly with regards to unwanted advertisements and disclosure of information without consent.

Customer behavior provides valuable insights into the attitudes and behaviors of customers when it comes to using public Wi-Fi networks. The study revealed that a majority of the respondents were aware of Wi-Fi analytics and expressed concerns about privacy and data security. One of the key findings of the study is that customers need to be more proactive in protecting their personal information and using secure connections when accessing public Wi-Fi networks. Customers should also be aware of the potential risks associated with Wi-Fi analytics and take steps to limit the amount of personal information they share online.

Overall, the study highlights the importance of balancing the use of Wi-Fi analytics for marketing and operational purposes with the need to respect customer privacy and earn their trust. By taking steps to educate customers on the benefits of Wi-Fi analytics, being transparent in their data collection and usage practices, and prioritizing customer privacy and data security, retailers can leverage this technology to better understand their customers and provide them with a more personalized and satisfying experience. Customers

who are aware of Wi-Fi analytics express concerns related to privacy and data collection, and retailers should take measures to address these concerns. By offering incentives and rewards for sharing data in a transparent manner, retailers can build trust and loyalty among customers while still using Wi-Fi analytics.

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