A STUDY ON WEB TRAFFIC ANALYSIS AND CONSUMER BEHAVIOUR ANALYTICS:
AN EMERGING E-COMMERCE STRATEGY

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ABSTRACT

E-Commerce is also called electronic commerce which is defined as an exchange of goods and services over the internet. Technological revolutions have made a big difference in the area of commerce and trade. It is also widely used in communication, consumer persuasion, consumer attraction, retention, and creation of customer value which can result in the creation of customer loyalty. In a world of Big Data, AI, machine learning consumer behavior analytics provides a unique array of opportunities to understand the consumers and their behavior on digital platforms. Analytics is often defined as a data-driven tool to make significant decisions related to marketing activities. Consumer behavior analytics also helps us to make predictive analysis. This is an emerging area in marketing and also in the area of research. After considering the importance of digital marketing, and various aspects related to it, this study is made to know the importance of web traffic analysis as an emerging tool towards understanding the customers' behavior among all the other consumer behavior analytics tools available. Secondary data has been used for the study and comparative analysis methodology is adopted. In this research web traffic analysis of selected 10 E-commerce sites are compared and various parameters like the number of visitors, bounce rate, average time spent, traffic source, and search types are studied to know the consumer behavior. The study concludes that the enterprises who have diversified their operations are more successful in traffic creation and customer attraction. This study also analyzed the importance of YouTube, Facebook, and other social media platform and their significant impact on web traffic creation.

Keywords: *Web Traffic Analysis, E-commerce, Analytics, Digital Marketing, Social Media.*

Introduction

In an ever-growing digital world customer orientation, customization, and customer buying experience and satisfaction makes the business successful. Digital marketing and consumer data analytics help in customer acquisition to customer retention and creation of loyalty. With the help of modern analytics approaches such as customer journey analytics, behavioral data is used to solve the problems and face challenges and also to create effective KPIs at every stage of customer experience.

There are various tools and techniques to analyze the data associated with an online business, and numerous categories to consider, from the site visits to the completion of the sales. It is also very important to understand customers' choices and behavior at every interaction point and across all channels, both digital and traditional. Customer behavior analytics is an approach to understand how customers interact with the company from which quantitative and qualitative information is obtained for analysis. The typical customer information would be demographic information like age, gender, income, status, etc. were found to be helpful in the past, but as the business expands its requirements broadens and an in-depth analysis of their behavior which can impact the company's bottom line is more significant to study.

Website traffic analysis is the process of collecting information about every web user who visits E-commerce sites and interpreting key data metrics that describe the web traffic in terms of how long they stay what they do, and reasons to leave the websites. It determines a website's popularity and visibility.

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Web traffic analysis aids in identifying the traffic sources, page views, visits, bounce rate average time spent on the website which can generate a large amount of insight to develop a target market, accelerate spend to sales ratio, and lead generation. It can be considered as a great beginning towards understanding consumers' behavior and developing related digital marketing strategies.

Literature Review

Dr. J. Jose Prabhu (2020) A Study and analysis of Consumer Behavior and factor influencing in Marketing. The author conducted research in the area of consumer behavior and analyzed various factors like Advertising campaigns, financial problems, Personal preferences, Team impact, and Buying power that can influence consumer's buying decisions. And this study also made an attempt to understand patterns of consumer behavior, consumer behavior segmentation, customer journey stage, etc. this study concluded that marketing is to convince individuals and making a computed emotional appeal for a successful sale. And also highlighted that understanding marketing philosophy and consumer psychology is very important to have a comprehensive marketing plan.

Vijay Victor (2018): "Factors Influencing Consumer Behavior and Prospective Purchase Decisions in a Dynamic Pricing Environment - An Exploratory Factor Analysis Approach" : This study was conducted to identify various online dynamic pricing environment measures that could have an impact on customers' behavior and leading to prospective purchase decision making and also studies various factors contributing towards consumers' shopping experience.

The author found out that a dynamic pricing environment has a major contribution to buying behavior. The results of the exploratory correlational analysis identified the shopping experience, awareness about dynamic pricing, privacy concerns, buying strategy, fair price perceptions, reprisal intentions, and self-protection intentions as factors that could have a big influence on consumer behavior and their prospective purchase decisions.

Diyana Ahmed Ghazie, Jasni Dolah (2018): How Digital Marketing Affects Consumer Behavior:

The author examined various literature reviews and conducted research to understand the significance of digital marketing and how digital marketing influences consumer behavior. The study found out that there is a shift from traditional marketing strategies to digital marketing strategies which reduces the overall marketing cost as well. The study also highlighted that majority of their respondents preferred digital marketing over conventional marketing because of its better exposure, creation of a high level of awareness, ability to purchase at customers' comfort, and overall satisfaction level.

Mr. Pratik V (2014) ; A Study of Web Traffic Analysis. This paper proposed various models to discover and analyze useful knowledge from various sources like weblog data and also provides a comparative analysis of log analyzer tools which can help in understanding traffic on a web server. This paper described a variety of tools available which offer great capabilities in reporting the outcome of the analysis. The study also made an attempt in understanding the benefits of various analyzers how they can help organizations in drawing meaningful insights from the web traffic data.

Dr. Madhu Bala and Mr. Deepak Verma (2018): A Critical review of digital marketing"

It is very seen that online platform especially social media plays a vital role in studying the individual taste and preferences of the customers as a greater number of people are prone to disclose the personal information while using the internet and also it becomes favorable and easy for the organization to know the customer motives. According to the study made by the author, it is stated that they can reap many benefits from the digital marketing arena such as search engine optimization, search engine marketing, content marketing, influencer marketing, campaign marketing, etc. to increase the market share of the organization. It is also evident from the study that digital marketing is cost-effective irrespective of the size of the company and will be more successful compared to traditional marketing because the number of internet users has increased drastically over a period of time through which target customers can be easily reached by the organizations.

Ahmad Hosaini Dr. Kuldeep Chang Rojhe (2020): "Review paper on Factors influencing consumer behaviour"

According to the study made by the above authors, it is stated that consumer preferences are affected by various factors such as cultural factors, civil factors, personal factors, psychological factors, etc. and the business' marketing strategy should be planned in such a way that it taps the consumer demands and satisfy which is the essence of business success. The study also aimed to study the consumer on the whole such as different types of buyers, their buying pattern, regularity in buying, etc.

It is told in the study that the consumer experience following stages when buying the product such as being aware of the product available, searching for the information about the product, look into alternatives, compare with the alternative products available then finally buy the product and then post-purchase behavior. It is very important to study these stages of consumer buying and also factors influencing them with respect to purchases that they make in order to meet the changing needs of customers and persuade them to become successful.

Mr. Daniel Guce, Prof. Dr. Rashmi Gujrati, Mr. Hayri Uygun (2020): Global Trends in Digital marketing. The author in the above research paper has studied the importance of digital marketing according to the revolution of digitization happening in all the fields such as education, entertainment, health, etc. Organizations are forced to adopt digital marketing whether they like it or not because of various benefits such as low cost, easy consumer reach, direct advertising. They have studied that technology is playing a vital role in creating marketing strategies these days without which the organization cannot be successful. It is concluded in this paper that digital marketing channel will be going to the top-notch in future coming days and it is essential for the organization to go parallel to it in order to reach the customers.

A Study on problems and prospects of E-Marketing (2020): **N Kasambu and Sritharan R**

In recent years the internet has restructured the business from the traditional business. In order to enhance the business and contribute towards the success of the business, the organization must upgrade them and implement competent digital marketing strategies. The marketers should at the same be aware of various challenges in online marketing such as security, privacy, Impersonal services, lack of face-to-face contact, etc., It is concluded in the study that digital marketing has contributed to the rapid growth of the business; success yet it is prone to many disadvantages which have to work on to avail success of business enterprise without which the business will be a failure.

Statement of the Problem

As per the literature review analysis, it is very evident that most of the authors have made an attempt to study various concepts with respect to E-marketing, factors influencing consumer behavior, digital marketing, etc. But very rarely the research has been conducted on web traffic analysis and how it is helpful in understanding consumer behavior. This study has focused on understanding the importance of web traffic analysis and social medias' contribution towards the creation of web traffic.

Objectives of the Study

- To study the consumer behaviour analytics by comparing the web traffic analysis of selected 10 E-Commerce sites.
- To Study the success rate of various social media channels in web traffic creation
- To study the significance of web traffic analysis as a useful marketing strategy.

Research Methodology

For studying the Web Traffic Analysis secondary data has been sourced. To make the study more comprehensible various E-commerce websites from different sectors are studied. For effective results and better understanding comparative analysis of selected 10 E-commerce websites are studied.

Secondary Data Sources

For further analysis data was collected from:

- Newspapers
- Magazines
- Company websites
- Journals
- Marketing analytics websites

Operational Definitions

- **Web-traffic:** web traffic refers to web users who visits the websites directly or indirectly. It is measured in terms of visits, sessions, which also measures effectiveness of E-commerce sites in attracting the web users.

- **Consumer Behavior Analytics:** It is the tool used by businesses or firms to study the customers' actions and influences across each channel and interactions points in digital platforms. It is mainly used in data-driven decision-making processes.

- **Bounce Rate:** This means the number of single-page visits by visitors of your website. Bounce rate in terms of website traffic lets you know about the visitors who arrive on your website and leave without initiating any other action or event, like visiting a second page.

Limitations of the Study

- This study is limited to selected 10 E-Commerce websites.
- The study is restricted to the time period of past six months.
- Some of the findings cannot be generalized.

E-commerce Sites	Total Visitors	Bounce Rate	Average Visit Duration	Traffic sources %			Search Type (%)		Social Media (%)			Global Rank
	(In Million)	(%)	In minutes	Direct	Search	Others	Organic	Paid	You Tube	Face book	Others	
Amazon.com	2560	36.44	6.52	57.31	28.31	19.29	87.55	12.45	60.09	14.64	25.27	12
Flipkart.com	210.59	48.67	4.49	59.72	36.57	3.71	91.63	8.37	69.88	15.17	14.95	138
Myntra.com	35.77	51	5.07	51.49	41.43	7.08	76.94	23.06	39.6	44.46	15.94	1108
Nykaa.com	12.20	55.45	3.20	37.33	52.88	9.79	61.64	38.36	68.59	26.6	4.81	3793
phonepe.com	05.14	58.87	3.03	38.95	15.1	45.95	99.35	0.65	61.3	17.63	21.07	12998
Zomato.com	18.90	52.84	3.31	33.59	64.13	2.28	95.53	4.47	43.35	25.46	31.19	2719
Bookmyshow.com	07.12	64.78	2.46	24.93	70.42	4.65	99.17	0.83	48.35	10.03	41.62	12554
Bigbasket.com	12.78	60.59	3.40	47.01	49.71	3.28	80.49	19.51	69.55	9.98	20.47	3735
Netflix.com	2400	41.04	9.47	91.09	7.42	1.49	99.99	0.01	65.24	14.55	20.21	19
Ajio.com	16.22	53.46	4.18	43.01	42.28	14.71	68.98	31.02	34.98	51.92	13.01	2506

Findings

Data Analysis and Interpretation

- To study the consumer behaviour analytics by comparing the web traffic analysis of selected 10 E-Commerce sites.

E-commerce Sites	Total Visitors (In millions)
Amazon.com	2560
Flipkart.com	210.59
Myntra.com	35.77
Nykaa.com	12.20
phonepe.com	05.14
Zomato.com	18.90
Bookmyshow.com	07.12
Bigbasket.com	12.78
Netflix.com	2400
Ajio.com	16.22

- **Total Visitors**

From the above table, it can be inferred that amazon.com has the highest number of visitors, as it caters to diversified consumers' demands. Whereas, phonepe.com has the least number of visitors when compared to other E-commerce sites in the table. The reason being phonepe.com has restricted its operations with respect to financial facilities.

- **Bounce Rate**

E-Commerce Sites	Bounce Rate (in %)
Amazon.com	36.44
Flipkart.com	48.67
Myntra.com	51
Nykaa.com	55.45
phonepe.com	58.87
Zomato.com	52.84
Bookmyshow.com	64.78
Bigbasket.com	60.59
Netflix.com	41.04
Ajio.com	53.46
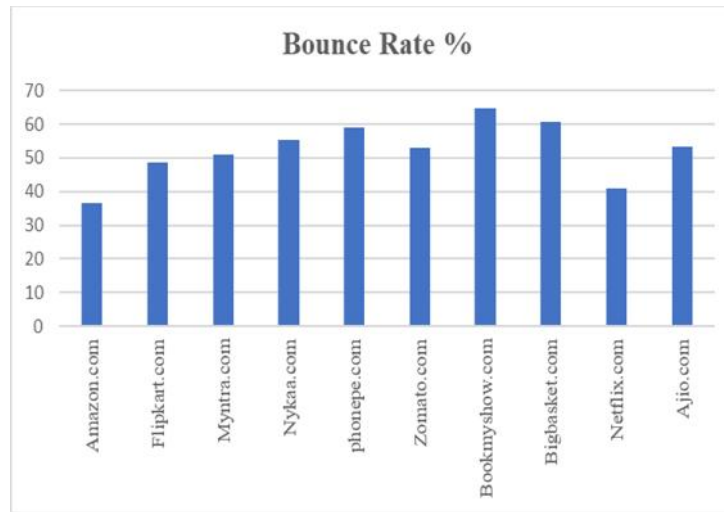
From the above table, it is evident that Bookmyshow.com has the highest percentage of bounce rate as it provides sufficient content required to the users. Amazon.com has the least bounce rate because users spend more time in exploring the content related to its products and services which engages the customers by providing attractive content.

- **Average Visit Duration**

| E-commerce Sites	Average Visit Duration (In Minutes)
Amazon.com	6.52
Flipkart.com	4.49
Myntra.com	5.07
Nykaa.com	3.2
phonepe.com	3.03
Zomato.com	3.31
Bookmyshow.com	2.46
Bigbasket.com	3.4
Netflix.com	9.47
Ajio.com	4.18
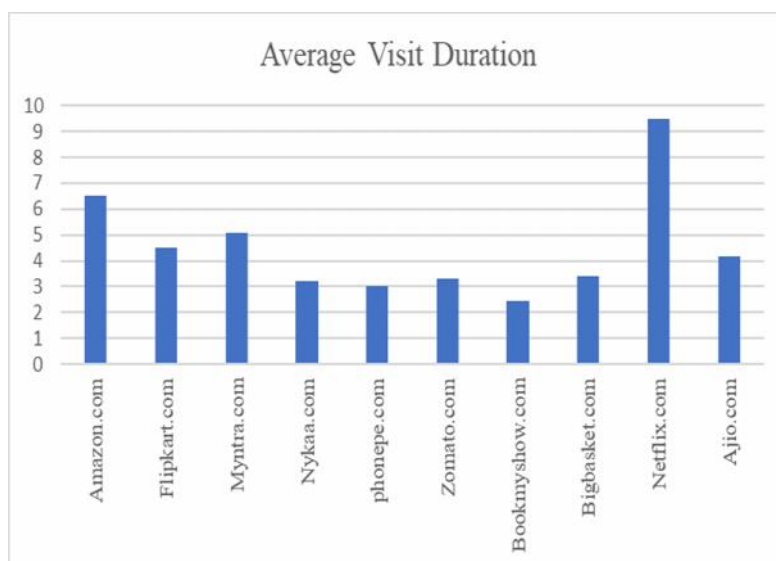
From the above analysis, it is understood that Netflix.com has the highest average visit duration i.e., 9 minutes and 47 seconds and Bookmyshow.com has recorded the least average visit duration i.e., 2 minutes and 46 seconds.

It can be inferred that Netflix.com has the highest average visit duration as it engages the web users related to entertainment channels such as web series, movies, and podcasts, etc.

- **Traffic Source in Percentage**

E-commerce Sites	Traffic Sources %		
	Direct	**Search**	**Other**
Amazon.com	57.31	28.31	19.29
Flipkart.com	59.72	36.57	3.71
Myntra.com	51.49	41.43	7.08
Nykaa.com	37.33	52.88	9.79
phonepe.com	38.95	15.1	45.95
Zomato.com	33.59	64.13	2.28
Bookmyshow.com	24.93	70.42	4.65
Bigbasket.com	47.01	49.71	3.28
Netflix.com	91.09	7.42	1.49
Ajio.com	43.01	42.28	14.71
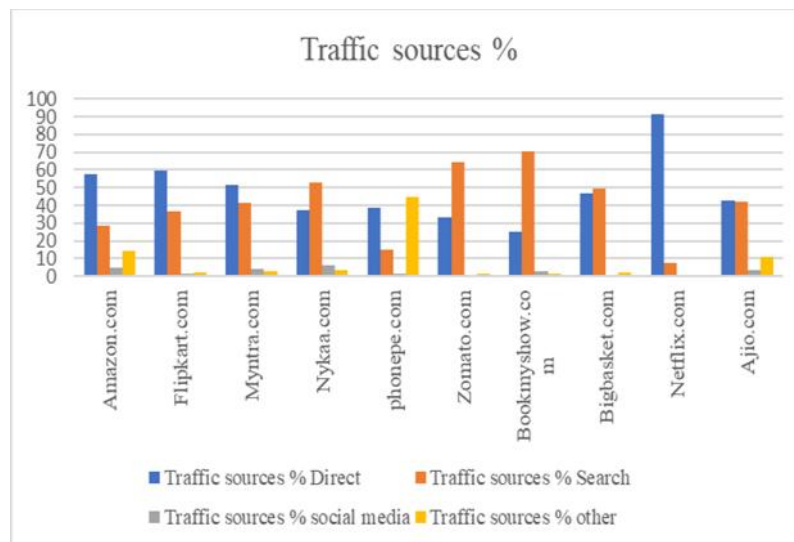
From the table, it is clear that Netflix.com has the highest direct traffic source i.e., 91.09% and Bookmyshow.com has the highest search traffic source i.e., 70.42%. Phonepe.com has the highest other sources of traffic through referrals, social media, etc.

- **Search Type in Percentage**

E-commerce Sites	Search type (in %)	
	Organic	**Paid**
Amazon.com	87.55	12.45
Flipkart.com	91.63	8.37
Myntra.com	76.94	23.06
Nykaa.com	61.64	38.36
phonepe.com	99.35	0.65
Zomato.com	95.53	4.47
Bookmyshow.com	99.17	0.83
Bigbasket.com	80.49	19.51
Netflix.com	99.99	0.01
Ajio.com	68.98	31.02
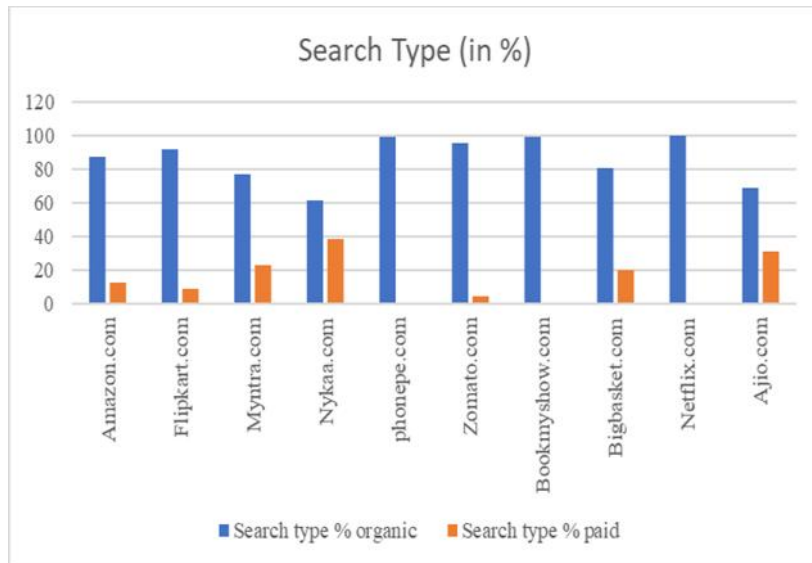
From the above table, it is known that Netflix.com has the highest organic search type i.e., 99.99% and Nykaa.com has the highest paid search type i.e., 38.36%. Search Engine Optimization results in high organic search results.

- **Global Ranking**

E-commerce Sites	Global Rank
Amazon.com	12
Flipkart.com	138
Myntra.com	1108
Nykaa.com	3793
phonepe.com	12998
Zomato.com	2719
Bookmyshow.com	12554
Bigbasket.com	3735
Netflix.com	19
Ajio.com	2506
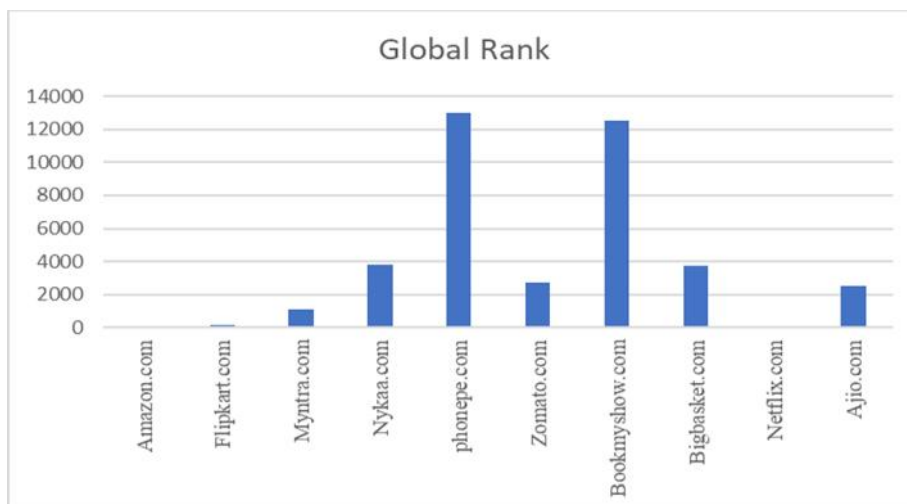
From the above analysis it is understood that Amazon.com has the highest global ranking among all of other E-commerce sites mentioned as it has high customer reach.

To Study the success rate of various social media in web traffic creation.

E-commerce Sites	Social Media (in %)		
	YouTube	Face Book	Others
Amazon.com	60.09	14.64	25.27
Flipkart.com	69.88	15.17	14.95
Myntra.com	39.6	44.46	15.94
Nykaa.com	68.59	26.6	4.81
phonepe.com	61.3	17.63	21.07
Zomato.com	43.35	25.46	31.19
Bookmyshow.com	48.35	10.03	41.62
Bigbasket.com	69.55	9.98	20.47
Netflix.com	65.24	14.55	20.21
Ajio.com	34.98	51.92	13.01

From the above analysis it is very evident that YouTube has primary and majority contribution towards web traffic creation whereas, Secondary contribution is through Facebook. Each of the platform has its own impact on web traffic creation. From the above information it is known that Flipkart.com has recorded the highest percentage of visitors through YouTube whereas, only Myntra.com and Ajio.com recorded its highest percentage through Facebook.

To study the significance of web traffic analysis as a useful marketing strategy.

In the present era, e-business plays a vital role for the enterprises to extends their wings and to maximize its profit it has to adapt modern marketing techniques. One among the strategy which is widely used is understanding web traffic and its proper utilization.

- **Conversion Rates Optimization**

Web traffic creation helps in converting interested customers to leading buyers. There are chances that visitors can make impulse purchases due to the influence of the advertisements and other promotional messages.

- **Tracking Bounce Rates**

Web traffic analysis helpful in identifying the bounce rate and to analyses the reason for high or low bounce rate. Tracking bounce rates ensures whether the content of the website is successful in engaging the customers or not.

- **Analyses Key Performance Indicators**

Key performance indicators like average time spent by customers, global ranks, search type, traffic source give insights about how overall functions are carried out and their effectiveness in revenue generation.

- **Potential Customer Engagement**

Valuable content always engages the customers for a longer period of time. This kind of analysis is helpful in understanding whether the content is outdated and does it need to be modified according to the changes in the market.

- **Ability to Capture your Target Audience**

Web traffic analysis can be used as tool to introduce the new product successfully to capture the target audience as it highlights their behaviour and also studies the taste and preferences of the target customers.

- **Study the Competitors**

As these studies are openly sourced, an organization can study their competitors and the statistical details give analysis about the strength, weaknesses, opportunities, and challenges of similar organizations.

- **Creation of Customized Communication**

Once the customer registers in any E-commerce site it becomes easy for tracking their buying behavior and enterprises can design personalized promotional strategies for the target audience.

- **Utilizing Virtual Platforms**

Virtual platforms like YouTube, Facebook and other social media platforms can be greatly utilized as these are major players in engaging customers over internet.

- **Long Term Potential Customer Relation**

Customer retention and customer loyalty can be achieved through interaction with the buyers on a continuous basis. Starting from an enquiry about products till the collection of feedback and after sales services helps in understanding customers in better ways which can maintain the long-term relationship.

- **Minimize Pit Falls**

  Organisations can identify their loop holes and develops strategies to overcome them.

Suggestions

- Diversification of business operation helps in attracting a greater number of customers which can result in high web traffic creation.
- Search Engine Optimization can help businesses to top their website during customer searches.
- Expanding the product line of business can result in successful web traffic creation.
- Posting the content on social media platforms through paid advertisement would help in the creation of more visitors.
- Integrated omni channel communication will keep the customers informed about their activities.
- Unique advertisement campaign like viral marketing, content marketing, and marketing through influencers has to be established by the organizations having less organic search by we users.
- Organisations should invest significantly in research and development activities to identify the important sources of web traffic creation and its utilization.

Conclusion

The marketing function has been the backbone of any business to become successful. The activities associated with marketing function are revolutionized by the internet and plays a major role in this particular aspect. When carrying down these activities studying consumer behavior is very vital without which marketing doesn't have life in it. The above research has studied the importance of consumer behavior analytics and web traffic analysis as a tool to study the numerous areas of consumer behavior analytics. It is concluded that the E-commerce sites which have a greater number of visitors and have a high global rank are the enterprises that offer diversified operations than those which have narrowed their business functions. The visitors have stayed for a longer period of time in the websites which have more attractive content to engage the users. The major contributor to web traffic creation is through organic search rather than paid search. The prevailing platforms the business enterprises can utilize to create advertisements or to reach customers could be through YouTube, Facebook and other social media channel as it has increased web users and it impacts more in web traffic creation which is clear evidence from the above study.

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